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MARKETING AND COMPETITIVENESS:
A SURVEY OF CURRENT PRACTICE AND PERFORMANCE IN THE UK TEXTILE MACHINERY INDUSTRY

VOLUME TWO

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CHAPTER 5

The United Kingdom Position in the World Textile Machinery Industry

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Introduction

The growth of the textile machinery industry was integrally related to the industrial transformation of the British economy, and furthermore its development over the past two centuries mirrors that of the wider British economy. The industry was a key part of the industrial revolution and a major employer of labour; until 1914 the largest single sector of the mechanical engineering industry and prior to 1942 the largest category of engineering exports(1).

More recently, however, studies have indicated that for many years the industry has on balance been exporting products that are less sophisticated, technologically, than those it has been importing(2). In common with other capital goods industries textile engineering has always suffered from the cyclical affects of demand, the national business cycles being amplified by the time they reach the textile machinery sector. Today the industry is in a state of decline and without a policy this decline will continue.

The basic purpose of this chapter is to describe the major characteristics of the UK textile machinery industry and its international rivals.

Part One provides an overview of the nature of competition in the textile machinery industry. The main elements in the competition and some of the important technological advances and their economic impact are discussed. The reasons behind the international competitiveness of the West German, Swiss, Japanese and Italian textile machinery industries, are provided. This part also discusses what machines textile manufacturers want.

The UK textile machinery industry is the focus of Part Two. Basic facts about the industry are provided - these include: recent changes in structure, an analysis of profits and losses, the high degree of specialisation, main product groups and their geographical location, international trade and relations with the government.

The above issues will be presented in two sections:

First: Factors Determining International Competitiveness in the Textile Machinery Industry.

Second: General Description of the UK Textile Machinery Industry.

SECTION 1

Factors Determining International Competitiveness in the Textile Machinery Industry

Nature of the market and the main elements of competition:

The market of the textile machinery industry is very competitive. "The main elements in the competition are the technology content of the equipment (one of the principal aspects of capital intensity) quality of the machinery, quality and versatility of its output, the price of the machines and after sales service. Particularly in the case of depressed conditions in the textile industry, minor price differences of textile machinery may count in materialising machine sales."(3)

According to Rothwell(4) competition in the textile machinery industry is at the international level, a range of factors contributing to a machine's competitiveness including reliability, economic performance in mill, compatibility with user requirements, after sales service, etc.

Fishwick(5) also pointed out that the international nature of trade in the textile machinery industry has led to aggressive competition in terms of product design, innovation, and price and conditions of purchase.

Boon(6) likewise stated that "textile machinery producer and supplier is usually a medium sized firm which competes by means of product differentiation and in other ways. It tries to capture the strongest possible position in a certain segment of the market. The market is imperfect in the sense that the suppliers have a far better insight into its structure than the demanders, particularly those from the developing countries".

Salis[7] emphasised a similar view when he indicated that machinery manufacturers have a limited and well known number of customers, generally the emphasis is more on product and service, product support for sophisticated equipment has a very heavy economic significance for the machinery manufacturer who must ensure this support at all times and over the working life of the equipment which is usually quite long.

Miles[8] also pointed out that in the more specialised areas of the textile machinery industry other factors assume a greater importance. They include good marketing, good design, and high level of skills in production management.

F Thies[9] in his article "Can the European Textile Machinery Industry Survive" stated that if we produce sufficiently sophisticated machines which are highly productive we enable the European textile industry to fight the competition from competitors outside Europe and thus conserve our so very important customers who are indispensable for survival of the textile machinery industry.

Hence Rothwell[10] argued that if Western European textile machinery is to maintain its position of pre-eminence in world trade, then it must have the ability to respond to foreign competition. "It might be that Western European Governments will need to become increasingly involved with textile technology R & D in order to match this effort; it might be that Western European Companies will be compelled to pool R & D resources in order to achieve radical innovations".

Charles Tewksbury[11], head of the Institute of Textile Technology, writes in ITT's "Technology trends for the Textile Industry as at ITMA 83" that this infusion of high technology and professional management into the developing and professional management in developing countries is a factor which needs to be

taken into account in assessing the international competitiveness of the American textile machinery industry.

"With this technology being openly available to those countries with whom we are currently competing in the international market place, it is readily apparent that we must continue to focus on the other factors that differentiate us from the other textile manufacturing countries of the world".

Another industry leader, Roger Anthony, Corporate Vice President, Burlington Industries, told the Clemson N.C State seminar on electronics[12] that "we need to focus on the factors of competitiveness where we can control the outcome we need to leverage the controllables". He listed several, quality, service cost, innovations (product and process development) and flexibility.

Also G Hacker[13], President, American Textile Machinery Association, stated that in recent years American manufacturers of every description have come to realise that to sustain long term profitability they must remain competitive with suppliers of similar products the world over. They must be able to produce machines of consistent quality at a competitive price, or they must offer service or a unique product with special benefits not available elsewhere.

At the American Association for Textile Technology (AATT) annual meeting, Neil Cahill[14], Vice President, manufacturing technology at the Institute of Textile Technology, said: "technology is no longer a special advantage to the more developed nation as it was during the 50s and 60s. Machine technology itself is becoming a commodity product whose purpose is to service the worldwide market. Technology is available to anyone willing to pay for it ... technology is becoming the entry fee just to compete".

Chaill continued to point out that "the real power of technology is not just its technical capability but how effectively that capability is projected into the market as a competitive weapon".

Marwin Craw[15] talked in a similar vein to AATT members, "we must play the offense and it involves customers and technology to our customers. We can offer something foreign competition can't SQP: Service, Quality, Partnership".

Again, as the world economy improves and the demand for textile machinery increases manufacturers will be in the market for technologically advanced equipment.

T A Mann[16], Vice President for Corporate Research and Development at Burlington Industries, mentioned that if we are to be competitive, we must develop and apply new technology diligently in order to minimise our manufacturing costs, to improve quality and overall productivity and to provide more flexibility in our product offerings. To be sure, we are in an era in which we must truly manage for change. And technology is the focal point of this effort.

More recently the Textile Machinery Economic Development Committee[17] (EDC) reported that "in textile machinery the changes have been dramatic. New technologies are constantly being incorporated into new products. Machinery has been developed which increases the speed of production which reduces the manpower costs which saves energy which provices a better quality final product which increases the flexibility of production". Utilisation of efficient machinery has always been a vital factor in maintaining competitiveness in textile manufacturing enterprises[18].

M Ross[19] said that technological changes in the next decade will include wide-scale adoption of important modifications to

conventional machinery. Basically these changes comprise faster, larger capacity and more automatic machinery, and improvements in auxiliary equipment, such as automatic machine cleaning and materials handling equipment. More radical changes, such as the combination or elimination of certain operations, computer process control in finishing and new types of fabric formation will also affect textile production in the next decade. Hence technology is an important feature in the industry - technical innovations often appear as a market leader.

Heath[20] took a similar view to Ross and pointed out that the textile industry has become a more capital intensive operation and the textile machinery industry a high technology engineering sector. "Readiness to develop and exploit improvements, such as electronic patterning in knitting operations and open-end spinning, has determined the ability of the various sectors of the industry to compete internationally. Thus, sections in which British companies have made significant developments show a strong competitive position in the market place, whereas sectors such as weaving are weak internationally".

Rothwell[21] in his study has also stated that the trust of textile machinery development efforts in recent decades has been towards increasing the productivity of individual machines; reducing the number of operations within a particular processing sequence and reducing manpower requirements through increases in the degree of automatic transfer between adjacent operations.

On examining the relative contributions of radical and incremental innovations in specific areas of textile manufacture, Dr Rothwell concluded that, in spinning and weaving the most gains in production rate of machinery have been attained through technically radical innovations, whereas incremental innovations has made a considerable, albeit smaller, contribution. In the case of pre-spinning machinery, however, Rothwell found that production

rates have been increased pretty well entirely via the incorporation of incremental innovation only. With regard to post-war productivity increases in knitting machinery, Rothwell noted that these have been due primarily to incremental innovations, involving faster machine rotation rates and, in particular, increasing the number of feeders. However, he suggested that a high degree of radical innovation has occurred in circular knitting machinery, including the addition of computer-controlled patterning arrangements. These do not increase the production rate of the machine itself but do bring about a possible increase in the viability of shorter runs and an increase in patterning scope.

Rothwell[22] in his recent work indicated that most of the technically more radical innovations in the post-war period, including those that have enjoyed the most marked success, such as open-ended spinning and shuttleless weaving, were developed by machinery manufacturers outside the UK. He said "the complacency of many British firms after the Second World War bred because of earlier lack of competition in protected Empire markets. Since these firms generally continued to enjoy high sales, mainly to developing countries (in 1963, 40% of UK textile machinery exports still went to the Far East and Commonwealth countries) the consequences of this complacency went unnoticed, or ignored, for many years. By the time machinery manufacturers realised that they produced obsolete machines it was often too late for them to do anything about it".

Hence Saunders[23] in his study indicated that for Britain the comparison for 1975 showed that Britain imports machines of higher value than those it exports, British imports tend to be at the higher end of the range and British exports at the lower end.

Again an insight into the UK textile machinery industry can be obtained from Dr Rothwell's (1976) study[24]. The aims of this study were to discover whether the factors associated with the

production of large-steps, or radical innovations are significantly different from those surrounding the generation of small-step, or incremental, innovations, and to elicit factors associated with success and failure in each case. Other important aims of the study were to determine the role that innovation, or paucity of innovation, plays in the success or failure of textile machinery firms, and to attempt to gauge the relative importance of incremental and radical innovation to the success or failure of the firm.

Rothwell summarised his findings in the following points:

1. Textile machinery firms which produce innovation have, on average, three times the employment of those producing technically simpler incremental innovations.

2. The prime motivation or the majority of successful textile machinery innovators is the desire to satisfy a perceived customer's needs of one sort or another as opposed to a desire to exploit new technology.

3. Successful companies enjoy collaboration with external agencies (particularly with customer and/or private industry) from an early stage in the development process.

4. Most successful textile machinery innovations are patentable and patented, although the patents do not always prove effective.

5. A majority of firms claimed to formulate an explicit innovation policy, whereas nearly half of the firms do not formulate in writing the objective of their development efforts.

6. The more radical innovations are associated with an in-house research and development department and with the presence in the firm of graduate engineers, and often scientists. Incremental innovations are associated with in-house design and development departments.

7. Successful companies possess a clearly defined marketing policy and, certainly in the case of radical innovations, take a systematic approach to sales forecasting, using this as an important input to the decision making process.

8. The marketing and sales head in successful companies is often technically qualified, is high up in the firm's hierarchy.

9. Most successful companies offer firm service guarantees with their radical innovations which, in most cases, go out under warranty.

10. Successful innovators produce an efficient and reliable after sales service and mount comprehensive operator training courses to school users in the right uses and limitations of the equipment.

11. The reasons for the failure of incremental innovations show a balance between market-related and technology-related factors. In the case of radical innovations there is a marked bias towards technological reasons for failure.

Finally Rothwell[25] in his article "The management of Textile Machinery Innovation: Some lessons of failure" indicated that the main reason behind the failure of most companies is due to the lack of an efficient marketing strategy.

All of this seems to suggest that the world market for textile machinery is very competitive. To overcome such a problem and

regain market share textile machinery manufacturers in Great Britain must expand their research and develop equipment that is competitive in technology, dependability and price. They must also maintain adequate sales and service facilities.

Mr Macarthur[26] warned, however, that competition would be intense, and since the whole world now had access to the most modern machinery and advanced production techniques, the UK industry must exploit other strengths to gain a competitive lead.

Macarthur said we have the best textile research and educational structure in the world and we must use it intelligently and in doing so think far and wide. Success now depends more than ever on innovation and successful marketing. When there is good competition you create markets for new technology.

Smally[27] was in agreement with the above view when he stated that "if the British textile machinery industry (or firms within the industry) are to survive they need products, technically advanced ... well engineered, reliable machines which will be more than a match for the competition. This in turn means that they must be able to carry large and expensive R & D teams and design engineers".

Characteristics of Market Leaders

Given that one lesson which cannot be underestimated for its value is the ability to learn from what the market leader is doing and then to do it better, no matter how difficult this may be.

Accordingly, in the following pages we will examine the reasons behind the international competitiveness of the textile machinery industry in some countries such as: The Federal Republic of Germany, Switzerland, Japan, Italy and the UK.

West Germany

In this respect, if we take 1984 as a general trend indicator, West German textile machinery makers delivered machinery and equipment valued at DM. 5,08 GM (19% above the previous year's level) and export took a 21% leap forward to produce sales revenue of DM 4,583 m.(28)

Truetzschler(29), President of the German Textile Machinery Manufacturers Association, explained the first reason behind the competitive position of the West German textile machinery industry "is the very high percentage of sales that is put back into research and development".

"On the other hand, many of our firms are rather small and have specialised in one small area of textile technology. This allows us to focus enormous resources in many people, and technical know-how into an area, in order to come up with the best solutions. Some of our firms, of course, are very large, but they still concentrate on one area of textile production".

Truetzschler continued to state that "Our trade with the United States has increased enormously over the last two years or so. But now on the whole, it seems to have reached a peak or plateau. One difficult problem for us in the US market is service, and we pay much attention to this. You simply can't sell a product there and leave it. You can't set up a sales organisation without offering complete service and technical backup". Kaltenegger(30) said "we put a lot of effort into solving the specific problem of our customer".

Another peculiarity of the US market, Diete(31) stated is that customers there want immediate delivery. We understand that they have to move quickly with the fashion changes so we've shortened our delivery time now to less than six months. As a result we can see a big increase in our business this year.

Truetzschler[32] in more recent work mentioned that the textile machinery industry in Germany is faced with strong competition from low wage countries. "This leads to the need of designing high quality machinery that reduces the weight of labour cost in textile industry a road on which our machine builders have already successfully gone a long way with a lot more to come".

As an example Trockentechnick is one of the largest dyeing finishing machine manufacturers in the world. With factories in West Germany, South Carolina, and England, the company is able to have a diversified production programme to meet the demands of fabric finishing operations all over the world. And, to further its already extensive market reach, the company has appointed 170 different service representatives covering every continent.

As Chairman Kurt[33] said "in close co-operation with our customers, we have acquired the know-how on which our design and engineering is based".

As far as the West German textile machinery is concerned the Comitextile report[34] sums up the important interrelationship between research and textile manufacturing success thus: "there is increasing evidence that given the right kind and quality of research, coupled with well-considered policies for state of the art equipment investments ... and, of course, good modern management ... the primary textile industry shall succeed".

Hence the German textile machinery industry produced $1.6 billion worth of machines last year. However the percentage invested in research varies from firm to firm, but on the whole it will range from 5 to 7 percent[35].

Truetzschler said that "it could be much higher in some cases, for example, when a firm enters a new area of technology the figure may be 10 percent. In fact, our industry puts much more into

research than the textile machinery industries of other countries and actually more than the machine industry in general".

Holtappels[36] took a similar view and pointed out that "essential to continued growth is research and development, we know we can only hold on to our position if we keep up R & D".

Thus West Germany regarded its R & D spending as vital to its competitiveness in the textile machinery industry as it has been to its past success.

In contrast to West Germany, the UK textile machinery industry is poor in this aspect. Gill[37] in his study indicated that lack of investment was the main reason behind the decline of British textile machinery in the marketplace.

Also a survey by British Engineering Industry Board[38] found quite a startling divergence between the textile machinery sector and other sectors. Table 5.1 shows this very clearly.

Table 5.1: Employment of R & D personnel in textile machinery and in machinery manufacturing, 1981

Occupation	Textile Machinery (%)	Machinery Manufacturing (%)
Management staff	6.3	6.0
Scientists & technologists	0.5	1.4
Technicians (including Draughtsmen)	8.1	9.4
Office staff	14.9	19.9
Production staff	70.2	63.3

Source: J R McPhee, "Research is Vital", Textile Horizons, June 1984, p.39.

However, it is not simply a question of money, but also of personnel and an education system. An education system of the highest quality is a crucial factor in the progress of any given industry.

McPhee[39] said that "if Germany has any secret weapon in its economic success, it is the technical competence of its work force, a product of its apprenticeship system. Under this system, more than half of all young people leave full time schooling by age 16 to enter three years of apprenticeship, when they spend four days a week on the job and fifth in state run vocational schools, closely regulated by trade associations".

Hence to produce sophisticated textile machines, with appropriate physical and aesthetic properties requires a combination of skills that cannot be derived from education or training in other branches of technology. Furthermore, specialists are required not just for research and development, but for every facet of management and marketing.

As Salis[40] noted if we can give the right kind of attention to the crucial problem of human resources, we can be optimistic about the future of the textile machinery industry.

Addressing the same issue Coleman[41] said that for an industry like textile machinery, becoming more capital-intensive, the challenge is clear. Successful management means a balance between constructive use of new technology to improve productivity and creative management of human beings to improve performance "we cannot have one without the other and expect to prosper".

Hearle[42] was in agreement with the above view when he mentioned that the future of textile technology in the Universities is of major - perhaps even paramount importance for the future of the British textile machinery industry. "Unless men of high

quality can be attracted to run the industry, and unless an appreciable proportion of these have their roots in textile technology, the industry cannot hope for long term success."

In this aspect Great Britain has led the world in the development of the science and technology of textiles.

The Shirley Institute have played an important educational role in the textile machinery industry via management courses, technical seminars and conferences. "The Shirley Institute also made a fairly significant contribution to both the textile and textile machinery industries via the development and dissemination of techno-economic evaluation techniques of new machinery, and via its more fundamental studies of yarn and fabric structure and properties and their relationship to various machinery parameters".(43)

Universities have also played a great role in this aspect. However, education in Britain has been cut to such an extent that further nationalisation would be highly damaging.

For instance, "in the University sector the loss of undergraduate courses at Bradford from 1982 gives a 20% reduction in student numbers, and elsewhere cuts cannot be sustained without destroying departments altogether".(44)

In this regard it was thought that the Universities were not always responsible to the needs of the industry.(45)(46)

The major problem with Universities as Rothwell(47) indicated, "is it seems, that they design machines with technical niceness, in mind rather than the economics of machinery manufacture and textile production they are, in short, too far removed from the market place".

In West Germany the situation is different. Holtappels[48] stated that "a great part of success we have is due to the schools, we work very closely with the textile technical schools and research institutions in Aachen-Monchengladback, and Reutlingen. Of course, we also work with the textile industry on research projects".

Truetzschler[49] also has pointed out that "we have to have the right technical people - that is why we donate much to schools of higher education - the technical Universities, and we offer good pay so that our highly trained people will stay in the industry".

Finally Poetzold[50] suggested that size and global market strength are by no means the full story of West German machine success, however, rather it is the other way round, in that technological capability reflected continually with ongoing innovations at and sometimes between ITMA shows has been the foundation-stone on which this clear global lead has become established and has remained competitive.

Switzerland

Taking the Swiss textile machinery industry as another example, the industry is so highly competitive that its exports have continuously increased at a remarkable rate over the last decade. More than 95% of all textile machines produced in Switzerland are exported.[51]

The combination of many factors explains the reasons for this success: design flair, attention to detail, pride of craft, energy, and honest dealing are the major ones. In textile machinery if ever an innovation arises from another source, the Swiss seem able to cap it and quickly.[52] Undoubtedly, close contact with a technically-orientated local textile industry and the high standard of the Swiss textile schools has also contributed to its technical success.[53]

At the same time the range of services and products by Swiss textile machinery firms is so immense that there is probably no type of textile machine that is not available from a Swiss source in one form or another.

Also Swiss textile machinery has a reputation for quality and reliability. The Swiss firms are fully aware of this and attributes great importance to research closely related to practice and reliable quality assurance. EMPA is eager to support the industry in this important task by means of its service.(54)

In February 1985 Henggeler(55) stated "the Swiss textile machinery industry is among the most advanced engineering industries both in terms of technological sophistication and competitiveness. However, Swiss textile machinery manufacturers strive for more than continuous technological progress ... indeed their main objective and their underlying strategy is to supply equipment that will reduce costs and improve the quality that satisfies consumers needs."

Hence the Swiss were among the first, for instance, to recognise that in an era of escalating competitiveness, it was no longer sufficient to announce to textile manufacturers "here is our new machine, and this is what it will do for you". Today, much more heed is paid to customers who reverse the role by coming along and saying, "This is what we would like to achieve - can you build a machine or incorporate additional innovations in an existing machine - to enable us to do so."(56)

As far as service is concerned, Swiss equipment is sold with a package of service, and customer training is an increasingly sophisticated aspect of this service.

Although firms like Peyer and Zellweger Uster have their own classrooms, with equipment set up to pose practical problems, they find an increasing demand for in-mill training - Zellweger offers

courses dealing with operation of test equipment and evaluation of results; and a more advanced course on quality analysis in the spinning mill.(57)

Finally in the area of research Krause(58) indicated that the contributions by private industry exceeds the national average by far and it is most likely that up to 95% is industrially financed. With regard to the sales volume, about 9% is spent for research in textile machinery firms including the textile electronics field.

Indeed, even during the sales downturn years of 1982 and 1983, it was evident that in attempting to tighten their belts in response to the more difficult trading picture, Swiss firms positively avoided any cutbacks in their research and development effort.(59)

In this regard the NEDC's Textile Machinery Sector Working Party report(60) pinpoints particularly the worrying extent of research and development cutbacks "In a world where machinery is bought on technical merit ... (this) must shortly reduce yet again the UK share of international trade" say the SWP. It urges textile machine builders to fully exploit available sector support designed to defray manufacturing and design costs.

Japan

The Japanese textile machinery industry as a third example, in 1980 exports accounted for an impressive 86% of total production, making textile machinery firms more export oriented than other industries.(61)

Heiji Kashiba(62), Tsudakoma president said that to meet the US demand, the Japanese industry must offer highest quality products at the lowest costs. The key is innovation incorporating electronics is important, but that alone hardly makes a good product, innovation must be evident elsewhere in the machine.

Kashiba continued to point out that "product innovation and successful marketing are seen as the "musts" for survival in the tough textile machinery markets, especially in the United States, and the Japanese feel that survival means being the leader - or at least No.2 - in a field. "One must be in the top class, being the leader is about the only guarantee".

In the same vein, Hiroshi Kutsuna[63], a managing director of Murata Machinery Ltd, said "we want to become the leader in automatic winding. The gaps between the top markets, or the two top markets, and the rest are going to increase. Being No.3 is no good in this industry".

Like Kashiba, Kutsuna sees product development and high quality products at low prices as essential to maintaining the leading or No.2 position. "That is nothing new. But we are giving effort to doing these two things in a thorough manner", he said.

Murata Machinery, he said, is making frantic efforts "to become the world's leading producer of automatic winders, within the next two or three years. He supports this statement by an assessment that Japan's general fibre textile machinery level is fast catching up with Germany and Switzerland. We may have surpassed them partly in utilisation of electronics".

Italy

The picture in the Italian textile machinery industry is no different from the previous one. Product innovation and successful marketing emerged as significant factors in Italian competition.

According to the industry's national association[64] the ACIMIT (Associatione Constructioni Italiani di Macchinario per Industria Tessile "the stagnation in demand for textile machinery

seems to have been replaced by general awareness that competitiveness cannot be achieved without technological innovation".

"The Italians have found that improved demand has centred on machines embodying the highest level of technology, higher machine operating efficiencies, and high quality production at faster speeds".

The Italians also have come to realise only too well that for a thriving export business to be created and maintained, there is a need for guaranteed service. "The rapier loom from Italy is characterised by being very simple, modestly priced, high speed, and probably is the most versatile of all systems of shuttleless weaving available today".(65)

Brazzoli Sr.I started life as a little family company making winches in Italy. This firm has expanded rapidly and is now able to provide all manner of processing plant for overflow dyeing of all types of weaves. More recently the company has entered the corduroy processing sector where it is gaining acceptance simply because it can undertake a task at the right price.(66)

Likewise Savio(67), one of the most remarkable success stories in Italian textile machinery industry. The firm, based in Pordenane, continues to diversify its product line. It is a major employer of engineers, it now provides postgraduate education through its Cerimates branch, and is embarking into the works of robotics. Now Savio is a world leader and has pioneered many major developments, most recently bearing witness to the ongoing trend of automated production at high speeds.

The UK

Hence over the past 30 years, few British textile machinery manufacturers have secured and consolidated such a leading global reputation - with tremendous worldwide sales to prove it ... as

that of Scragg, a long time family-owned organisation which is now in sight of its centenary (1989).[68]

The reason for Rieter Scragg's present success is the same one that has witnessed their prosperity over many years: the design and manufacture of speciality machines for specific textile sectors based on technological superiority.

As Rieter Scragg's Doug Gibbons puts it: "We're not just an engineering company: it's all about helping our customers to get started on more advanced technology, and then to stay ahead of the game".

Thus the industrial world has changed completely. Textile machinery firms can be competitive and successful only if they produce machines that satisfies consumer needs throughout the world.

Consequently, we turn our attention now to examine what machines do textile manufacturers want?

What the customers say

Crawshaw[69] in his paper "Some Factors Affecting the Introduction of New Technology" put forward the view that successful machine manufacturing firms should understand user requirements better, see user problems earlier, employ greater sales efforts, and devote more effort to understanding user needs.

Pell[70] took a similar view and pointed out that the technology in the textile machinery industry should address a need in the market place rather than a need that serves mainly to satisfy the ego of the inventor.

Baker[71], El-Sherbeny[72], and Twiss[73] among others have confirmed the above view in their studies.

However, the problem lies to a great extent in identifying needs and evaluating their importance. As Parker[74] noted, manufacturers must be aware of the user needs as well as the nature of marketing environment.

According to Wierks[75] a number of textile executives bought machinery because they liked what they had and therefore bought more from the same supplier. Other textile machinery purchases were made because a successful competitor had an installation of a particular type of equipment.

M Boys[76], Executive Vice President, said that R I Stowe conducts an extensive machinery study before making a purchasing decision. Then we buy the best machinery available to make the best yarn we can.

Another buyer stated that we want machinery that would improve the quality and get more efficient carding.[77]

Seidel[78] likewise stated that "we wish machinery to utilise the precision and yarn control of the jacquard process and to expand it to include the ability to handle very large parts and large thicknesses, with each yarn stopping or starting precisely as required on the engineering drawing, and to make a specified contoured part without defect".

As Miles[79] puts it from the point of view of the user, the ideal machine would be one that combined maximum speed, maximum flexibility, in terms of material handling and product output capabilities, and extreme simplicity of operation and servicing.

Thus customer satisfaction will depend on the quality of the machine offered and the quality of the sales and after-sales service.

Essential also for creating customer satisfaction is price. There is always the danger of over-engineering a product.

However, Smally[80] argued that price is only one factor in capital purchase consideration. Equally or more important are non-price factors. Price is certainly important but in a capital intensive industry like textile machinery, price considerations are not or should not be pre-eminent.

Hence, quality, in all its aspects, together with price are the essential elements that determine the value of a machine to a customer.

Truetzschler[81] pointed out that "German textile manufacturers do not buy machinery on price alone, though economic viability is a major consideration in any decision. Neither do they buy solely on the basis of design. A commercial thinking mill executive is not likely to buy something just because it looks nice. The German decisions consider all such factors plus suitability of purpose. Then they decide what to buy".

Jones[82] also emphasised that "clothing manufacturers will in future buy from those textile manufacturers who show an interest in their changing circumstances and who demonstrate the ability to react to those changes.

As Thompson[83] indicated, the following are some of the more important considerations in the choice of equipment and supplier:

1. Optimum system, specification and performance of the selected equipment both in textile and mechanical terms.
2. Machine or contract price.
3. Delivery schedule
4. Availability of credit, grants or advantageous terms of payment.

5. Supplier's ability to install and service the equipment as an ongoing basis.
6. Availability of guaranteed spare parts supply into the future, at competitive rates and on good delivery terms.

However in reality different types of users look for a differing blend of qualities and characteristics.

A study conducted by Rothwell[84], based on a survey of BTMA members and 300 UK textile manufacturers, throws some light on the question of what users want and what manufacturers think they want.

Rothwell found that both makers and users ranked machine reliability and speed first and second among desirable characteristics. They both also put an improved quality of product very high. But after that their views diverged, users attaching more importance to other qualitative factors, including high operational efficiency and high standards of engineering, while, makers considered price to be an important factor in choice. Users put price last in the list of eighteen characteristics included.

The divergence of views is even more striking on the question of operational economics. Users put this first, makers fifth, out of a list of nine factors related to machinery performance. These factors included - listed in the order in which users ranked their importance - overall performance in use, reliability in the mill, advanced design and performance (ranked equal, second by machinery users) reliable delivery of machines and spares, ease of commissioning, seller's willingness to meet specific requirements (ranged equal fifth) after sales and training services, installation costs and hard selling policies, including information on developments.

A further survey by Rothwell[85] in the UK textile industry has shown that many of these firms buy foreign-built machines primarily because they are technically more advanced and offer superior performance than UK alternatives.

However, in terms of export markets, the machinery maker has to cope both with the requirements of high usage economics of the developed countries and also with the needs of the developing countries in which is situated so much of the growth of the world textile industry. The requirements of these two basic markets are in some ways different and the successful machinery maker must distinguish between them.

Some of the factors which could govern the choice of machinery for developing countries could be[86]:

1. Quality of machines. A machine which turns over reasonable output under a variation of wide tolerances would be considered ideal since the adjustment would ultimately be made by technicians who are not yet absolute experts.
2. Preferably all components should be machined to fit exactly on replacement. This is vital because the skill required to make two components unite in harmony is transferred from a factory technician to a machine manufacturer.
3. Indent marking on all components that fit together or where measurements should be taken.
4. Many electronic forms of control attached to modern machinery have their economic advantages in advanced countries where a slight reduction on labour is equivalent to a great reduction on production cost. Such attachments will be short-lived in developing countries since electronic experts are not readily available to give them the required attention.
5. Machinery design too close to limits will enjoy marginal life in very high temperature environment.

Table 5.2 indicates the basic criteria applied in the selection of equipment and machinery in the Mexican study. Of the factors mentioned some are economic considerations others are physical and technological considerations. Physical considerations are:

		Rank
(2)	The output versatility of the machine.	2
(3)	The output quality	3
(6)	The physical specification of the output	5
(7)	The type of raw material	6
(8)	The production speed of the machine.	6
(10)	The quality of the machine.	7

Economic neoclassical considerations are:

		Rank
(1)	Price of the machine	1
(5)	The cost of the labour	5
(12)	The credit facilities	7

Other economic considerations are:

		Rank
(4)	The volume of output produced by the firm.	4
(9)	The size of the production lots or batches	7
(11)	The cost of energy	7

Also the Colombia[87] study indicated that the basic criteria applied in the selection of equipment and machinery are in order of importance:

(1) The total volume of output.
(2) The quality of the final output.
(3) The productivity (output per worker) of the labour force (in relation to its cost).

Table 5.2: Factors considered in the Evaluation and Selection of Alternative Textile Techniques (Mexico)

No.	Factors	Rank	No. of Sources
(1)	Price of the machinery	1	(16)
(2)	Output versatility of the machinery	2	(13)
(3)	Output quality	3	(10)
(4)	Volume of output to be produced by the firm	4	(9)
(5)	The cost of labour	5	(8)
(6)	The physical specification of the output	5	(8)
(7)	The type of raw materials	6	(4)
(8)	The production speed of the machine	6	(4)
(9)	Size of production lots or batches	7	(3)
(10)	The quality of the machine	7	(3)
(11)	The cost of energy	7	(3)
(12)	The credit facilities	7	(3)

Source: G K Boon, Technology Transfer in Fibres, Textile and Apparel, Sijthoff and Noordkoff International Publishers, 1981, p.292.

(4) The daily output capacity of the equipment.
(5) The versatility of the equipment.
(6) The availability of the investment resources (implied here are the price of the machine and the cost of credit).
(7) The spare-part requirement of the equipment.

In general terms, for developing countries the price of the machine or the cost of capital are number one, in developed countries, the cost of the labour. Possibly the relative factors in machine choice can be ordered as follows:

Developing countries	Developed countries
1. Capital costs (price of machinery)	1. Labour cost.
2. Credit facilities.	2. Machine's universatility, flexibility, productivity and quality.
3. Skill requirements.	3. Quality of output.
4. Homogeneity of technology at the firm level.	

Thus long term prosperity in the textile machinery industry as in all else, depends on producing what the customers want in quality and prices which are better than those of competition.

Having concluded that we will turn our attention now to examine the major characteristics of the UK textile machinery industry.

SECTION 2

General Description of the UK Textile Machinery Industry

This section includes a brief note on the economics and structure of the UK textile machinery industry. The following aspects are examined:

1. Recent changes in structure and production.
2. Analysis of profits and losses.
3. The high degree of specialisation.
4. Main product groups and their geographical location.
5. International trade.
6. Relations with government.

Recent Changes in Structure and Production

The textile machinery industry includes these companies which manufacture a range of textile machines and their accessories. Final products cover a wide variety of machines used for a diversity of textile process, ranging from the extrusion of man-made fibres to the more traditional spinning, weaving, knitting, dyeing and finishing machines(88).

Table 5.3 gives an analysis of establishments by size for 1982. It shows that the industry had a total employment of nearly 12,600 in 1982. This was 40,000 in 1973 as indicated in Table 5.4. It can be seen from this table the sharp decline in the number of employees in the United Kingdom compared with other EEC countries.

Resulting from the disappearance of "substantial" UK companies and the accompanying plant closure and large scale redundancies, this dramatic decline in employment was exacerbated by a drop in per capita output.

Table 5.3: Analysis of Establishments by size, 1982

Size group (employees) a	Establishment b	Total Employment c
	Number	Thousand
1 - 10	215	1.0
11 - 19	81	1.3
20 - 49	63	2.0
50 - 99	18	1.2
100 - 199	14	1.9
200 - 399	5	1.4
400 and over	5	3.8
Total	401	12.6

a. Average number employed during the year, including full and part time employees and working proprietors.

b. Establishments employing fewer than 20 persons are generally exempt from business statistics office inquiries and data for these establishments are therefore of doubtful reliability. Figures for establishments employing 1-10 persons are particularly at risk. They should be regarded merely as the best estimates available and used with caution.

c. Including working proprietors.

Source: Census of production 1982.

Table 5.4: Employment in Textile Machinery Production in the EEC
(Thousands)

	1973	1975	1980	1982
Belgium	6.1	5.9	4.8	4.2
France	15.2	14.0	9.5	8.7
Germany	66.4	55.5	43.7	42.0
Italy	25.5	29.0	29.0	28.0
UK	40.0	37.0	21.0	12.6*
Others	3.2	2.6	2.3	2.1
Total	156.4	144.0	110.3	98.5

* Census of Production 1982.

Source: F Fishwick, The Textile Machinery Industry in the EEC, Commission of the European Communities, 1984, p.23.

The SWP report[89] indicated that "production efficiency was hit by a downward trend which had left real net output per head by 1979 at only two-thirds of its 1975 level."

Table 5.3 also gives some idea of the degree of concentration in the industry. Companies employing 100 or more account for only 24 of the total 376 enterprises and over 200 companies employ fewer than ten. The 1982 census also showed that the UK industry is dominated by ten major companies, which accounted for over 47% of total sales.

However in 1976 as Rothwell[90] indicated in his study the industry was dominated by three major companies. "These three groups between them manufacture about 60 per cent of the United Kingdom's total production of textile machinery and the top nineteen firms account for approximately 80 per cent of total production."

Now, while it is true that the structure of the industry has changed little during the past decade, other significant changes have occurred.

According to a recent report[91] in 1984, the changes in the British textile machinery industry have been most significant, affecting more than half of the total capital invested in the national industry.

In late 1981 Sears Holdings decided to sell off its textile engineering interests, contained in Bentley Engineering Group. These comprised manufacturers of knitting machinery (hosiery, circular and flat machines), machine needles and sliders, yard and piece dyeing equipment and circular weaving machines.

In 1982 Stone Platt Industries plc, with the largest production of textile machinery in the United Kingdom, went into liquidation. The major activities of this group were the production of machinery for fibre preparation and spinning (Plat Saco Lowell), for twisting and texturing of continuous filament yarns 'Ernest Scragg) for yarn sizing (Platt Sizing) and for dyeing fibre, yard or piece (Platt Longclose). Platt Saco Lowell has been acquired by the US company John D Hollingsworth Inc, with substantially reduced capacity and employment; Ernest Scragg has been acquired by the Swiss company Rieter and Platt Longclose, and Platt Sizing has been taken over by the former management, with substantial external share capital.

The report also revealed that other less prominent changes have occurred within the UK industry since 1980. Cobble Blackburn Ltd, an American-owned subsidiary, acquired a competitive manufacturer of tufting machinery (Edgar Pickering Ltd) from Sears Holdings in 1980; in 1981 it acquired a manufacturer of carpet looms (Wilson and Longbottom) and in 1981 took over Muschamp, a producer of twisting machinery. These takeovers were combined

with rationalisation and reorganisation and factories other than Cobble's existing premises were closed and redundancies substantial.

Other changes include the disposal by Mather and Platt Ltd of its textile machinery interests which were ultimately acquired by a new company owned by former Mather and Platt managers.

There have also been significant changes in the production of the UK textile machinery industry.

In volume terms production in the UK has fluctuated about an almost horizontal trend as shown in Table 5.5. Also the most dramatic changes shown in Table 5.6 is the fall in United Kingdom production compared with other EEC countries.

Analysis of Profits and Losses

The figures in Table 5.7 have been prepared by the Commission of the European Communities in 1981. The Table shows a gradual decline in the aggregate financial return from textile engineering in Great Britain from 1973 to 1977, with a slight stabilisation in 1978 and more severe deterioration in 1979.

Another survey by ICC[92] Business Ratios, of London, took an in-depth look at the fortunes of 99 leading companies in the sector, analysing company performance over three years to April 1979.

As a measure of profitability, the survey quotes the average return on capital employed for machinery manufacturers, which fell from 11.1% in 1967/77 to only 8% in 1978/79 which reflects the state of the textile industry, where importers of finished goods have prospered at the expense of home products.

Machinery distributors, however, with a far smaller asset base to cover, achieved a return on capital of 27.4% in 1978/79 - more than treble the return by manufacturers.

Table 5.5: Textile Machinery: UK Production

(1980 = 100 volume)

1979	123.5
1980	100.0
1981	83.7
1982	71.0
1983	67.7

Source: Annual Abstract of Statistics.

Table 5.6: Trends in production within the EEC

Production indices 1973-82 (1975 = 100)

	Belg.	Denk.	France	Germ	Italy	Neth.	UK	EEC
1973	86	146	130	135	100	90	105	118.5
1974	94	99	106	128	80	101	99	109.0
1975	100	100	100	100	100	100	100	100.0
1976	94	103	96	101	102	93	85	96.5
1977	95	95	92	87	99	75	64	84.5
1978	88	98	97	87	84	77	62	82.0
1979	99	103	89	90	76	89	56	80.4
1980	94	90	86	89	67	66	45	75.1
1981	88	85	76	80	74	63	38	69.6
1982	92	-	66	74	-	-	30	(63.0)
1975 values $ mill	185	34	359	1531	582	94	788	3573

Source: F Fishwick, The Textile Machinery Industry in the EEC op. cit. p.21.

Table 5.7: Net results from sample companies

(Textile engineering activities only 1970-71)

Year	Total of net profits and losses (1)	(1) as ratio of aggregate turn-over	No. of firms with: net profit	net losses
	£m	%		
1970	12.42	8.8	33	0
1973	22.95	10.9	34	5
1975	16.24	5.8	35	4
1976	12.35	4.7	34	4
1977	8.09	3.2	35	3
1978	8.96	3.2	34	4
1979	6.35	2.2	23	14

Sources: F Fishwick, The evolution of Concentration and Competition in the textile machinery industry of the UK Commission of the European Communities, 1981, p.49.

The average profit margin for the manufacturers is only 3.7% - barely half that of the distributors, which stands at 6.7%. Survey comments "the fact that the profit margin is so low for manufacturers indicates the desperate measures that many have been taking in order to maintain sales volume.

Lack of demand seen as a major cause of the sector's problems. Sales by value actually fell by 2% between 1976/1977 and 1977/1978 followed by a small rise of 9.6% in the following year. The survey said allowing for the rate of inflation, this indicates a decline in the real volume terms.

In a recent Financial survey from Inter Company Comparisons Ltd results indicated that[93]:

1. Only 51% of companies surveyed could boast an increase in turnover over the two account years shown.
2. Under a third of companies surveyed (27.9%) actually managed to increase their profits in the latest account year shown.
3. Over a third (37.2%) lost money in the latest account year shown.
4. 43.1% of companies surveyed did not increase their payments to directors over the two account years shown.

More recently a further survey[94] indicated that the companies reporting net losses from textile engineering in 1980 included the two largest producers of textile machinery in the UK.

In the recent recession losses were recorded by UK producers who previously had achieved positive results throughout the 1970s. Among these are the US owned subsidiaries Crosroland Camber.

Major product groups and the degree of specialisation

The 1982 Census of production divides textile machinery into groups by the following purpose[95]:

Textile machinery

1. For processing fibres.
   Manufacture of machines for extruding man-made textile fibres - filaments and tapes, and for processing natural and man-made textile fibres, filaments and tapes.

2. For producing fabrics and carpets.
   Manufacture of machinery for producing fabrics. Warp Weft and hosiery knitting machines, machines for making non-woven fabrics and machines for preparing yarns for use on the above machines are included. Manufacture of other knitting machines. Manufacture of machinery for producing carpets of all descriptions including auxiliary machinery.

3. Finishing and other textile machinery.
   Manufacture of machinery for bleaching, dyeing, finishing and otherwise processing loosestock, sliver, tow, yarns, fabrics, garments and carpets, including auxiliary machinery and other textile machinery, not elsewhere specified.

4. Accessories.
   Manufacture of accessories for use with textile machinery, excluding accessories made wholly of cardboard.

An analysis of 37 enterprises with a turnover of £1.5 millions and/or more than 200 employees in the UK showed that in 1979 only two had activities in more than one of these categories(96).

Among reasons for this specialisation on the part of machinery producers are the following(97):

1. Much of the textile industry was itself horizontally structured - vertically integrated factories were confined to products where the range of yarns used was limited. Some large textile groups still give considerable autonomy to spinning, weaving, knitting or finishing divisions. This means different customers for different products.

2. Specialisation is a means of reducing the proportion of research and development expenditure to turnover.

3. The same comment applies to marketing in general, much sales promotion is technical in nature, requiring specialist knowledge of production processes on the part of those in the marketing function.

Although there are economic arguments for specialisation and these appear to be supported by the difficulties faced by some of the diversified groups, Heath(98) in his study indicated that

diversification in some of the sub-sectors seemed to occur as a result of necessity than as a positive move towards more profitable areas of production for example, when the Pakistan jute market collapsed in 1968, jute machinery manufacturers such as Keay were forced to diversify to survive. Dronsfield Bras also made machines for the paper industry.

Main product groups and their geographical location

Today major textile engineering products in the United Kingdom are mainly produced within the areas where the associated textile industries developed. The main geographical centres of the industry are as follows(99).

Region of UK	Approx. % of employment (1978)	Main products
North-West England	40	Cotton-based spinning, etc, machinery, looms and accessories, textile finishing equipment.
Yorkshire and Humberside	23	Wool and Worsted spinning and weaving machinery, textile finishing.
East Midlands (Leicestershire and Nottingham-shire).	14	Knitting machinery also dyeing.
Northern Ireland	12	'Flax originally' Spinning, weaving and finishing.

International trade

Before the Great War Britain dominated the world trade in textile machinery (see Table 5.8) and this position was retained albeit with a slight reduction throughout the inter-war years.

More recently the analysis of trade showed falling exports both within the UK and the rest of the world.

Table 5.8: Shares of World Trade in Textile Machinery by Major exporting Countries.*
(Percentage of total)

	Spinning			Weaving		
	1913	1923	1927	1919	1923	1927
UK	87.1	86.1	79.5	64.0	59.1	53.3
Germany	10.4	4.4	9.2	18.3	9.6	21.9
France	0.4	4.7	5.9	1.8	7.6	10.8
Switzerland	1.3	1.9	3.4	14.3	17.8	9.8
U S A	0.75	2.8	1.9	1.4	5.5	4.1

Source: Derived from ILO, The World Textile Industry: Economic and Social Problems, Geneva: 1937, Vol.2, p.107.

* These five countries accounted for over 95% of total world exports.
All fibres included.

Table 5.9: Export Shares 1970-72 and 1977-79. Textile machinery export as % of OECD total.

UK	13 (12.5)	8 (8.2)
Germany	34	31
Italy	8	7
France	6	7
Switzerland	13	17
Japan	9	11
USA	8	7
Others	8	10

Source: F Fishwick, The Evaluation of Concentration and Competition in the Textile Machinery Industry of the UK, op. cit. p.52.

Table 5.9 compares the UK share of OECD exports in the years 1970-72 and 1977-79 with those of other principal OECD exporting countries. The table indicates that none of the four continental European countries experienced a decrease in export share similar to that of the UK (whose share declined by over one-third between the two periods).

At this time the United Kingdom textile machinery industry has continued to lose its competitiveness in international markets. The industry faces keen competition not only from West Germany but also from Switzerland, Japan and Italy.

West Germany today has a textile machine building industry which provides about one-third of all exports from western nations to the world's 150-160 countries and thus well ahead of its nearest rivals - Switzerland takes about 20%; Japan has some 14% and Italy about 9% "and growing"(100). In 1982 the United Kingdom's share of exports of principal OECD producers reached about 7.8 per cent(101).

According to Fishwick(102) the geographical trading pattern does not appear to have been a major factor in the decline of the UK share of textile machinery export. Ten major markets have been analysed in this respect. In all but one of these markets (the exception was France) the UK share fell between 1970-72 and 1977-79 the details for each are shown in Table 5.10.

However on 15 February 1985 the Textile Machinery Economic Development Committee (EDC) reported(103) that, some of the UK industry's main customers were not among the world's top 25 importers. For instance the UK had almost a monopoly of sales of textile fibre processing machines to Burma and New Zealand and of looms to Burma and Pakistan.

A significant number of the UK's main export markets were

Table 5.10: UK Export Share and Market Growth in Ten selected Markets.

Country in 1977-79 order)	Total imports textile m/c ($m)			UK Share %	
	1970-72 (1)	1977-79 (2)	(2) as % of (1)	1970-72	1977-79
USA	1040	1648	159	14.3	8.2
W.Germany	464	869	187	18.5	12.0
Italy	421	783	186	8.3	6.7
France	471	749	159	9.0	9.8
S.Korea	141	734	521	7.1	5.4
Taiwan	219	352	161	7.7	3.8
Greece	128	307	240	10.4	5.7
Spain	196	296	151	7.9	5.4
Brazil	248	291	117	12.8	6.1
Turkey	93	254	273	7.1	5.8
TOTAL	3421	6283	184	11.9	7.7
% of world total	43	39			

Source: F Fishwick, The Evolution of Concentration and Competition in the Textile Machinery Industry of the UK, op cit, p.55.

commonwealth partners. For total textile machinery exports Pakistan was our 6th largest customer, the Irish Republic 10th, Burma 13th, Australia 18th Nigeria 24th and Hong Kong 25th. None of these is in the top 25 of the world's list as Table 5.11 indicates.

Not only has the growth of UK manufactured exports of textile machinery slowed down, on the import side, the evidence for loss of competitive edge is equally disturbing. A more important feature has been the decline in the UK home market for textile machinery to under one-third of its 1975 level by 1982 and a fall in the UK share of that home market[104].

Table 5.11: Top 25 Importers of all Textile Machinery - 1982

Average Growth Rate	Importing Country	Value ($ M) of Imports	Proportion of World Imports %	Ranking as Market for UK Exports	% Share of Imports held					
					UK	US	J	WG	IT	SW
S	United States	687	12.0	1	7	-	11	28	7	29
S	Italy	301	5.3	2	9	3	5	42	-	24
S	West Germany	283	4.9	3	9	8	2	-	14	38
S	France	273	4.8	4	9	4	4	38	15	17
S	United Kingdom	214	3.7		-	10	8	35	15	12
I	Egypt	206	3.6	9	6	3	4	28	7	42
S	South Korea	189	3.3	19	4	3	63	18	3	4
S	Taiwan	180	3.1		1	2	47	28	5	10
I	Mexico	178	3.1	15	5	22	4	21	10	24
S	Switzerland	151	2.7	17	5	3	2	53	11	-
S	Bel-Lux	139	2.4	8	10	4	1	44	8	14
I	South Africa	135	2.4	5	14	8	6	31	12	17
I	Spain	135	2.4	22	4	3	5	30	17	29
S	Indonesia	134	2.4	23	4	2	59	13	2	10
S	USSR	127	2.2		3	1	29	39	10	5
S	Canada	118	2.1	20	6	57	2	12	4	8
F	Portugal	116	2.0	14	8	2	1	35	15	25
F	India	113	2.0	7	13	17	14	23	6	20
S	Turkey	111	1.9		4	1	3	32	15	23
S	Japan	99	1.7	16	8	15	-	34	7	26
F	China	90	1.6	12	11	3	38	23	12	4
S	Netherlands	83	1.5	11	12	6	1	52	5	6
S	Brazil	81	1.4		4	18	8	34	9	16
S	Austria	80	1.4		1	1	-	59	8	26
S	Greece	74	1.3	21	8	5	3	29	24	22
	Rest of World	1416	24.8							
S	Total World	5713	100		7	8	12	29	9	19

Source: Textile Machinery EDC, Key Exports Markets NEDO, London, 15 February 1985.

Hence the main point is that the latest data on import penetration and export sales shows a worsening in the British competitive position. As Table 5.12 indicates despite the fact that manufacturers are increasing their proportion of export sales they are failing to maintain their share of the domestic market. It also appears that the trend for import penetration increased more rapidly than export for the recent years in the textile machinery industry.

From this brief analysis one may expect that the textile industry is not satisfied with the suppliers of machines at home, textile companies are increasingly buying their machines from abroad.

As mentioned before, the unit value of UK imports in this industry tends to be significantly higher than the unit value of its exports: this suggests that the degree of sophistication of imported machinery is rather higher than the degree of sophistication of machinery that it exports, although a comparison of unit value indices is a very crude indication of this. Nevertheless, this declining competitiveness as shown in the trade balance is a cause for considerable concern.

Table 5.12: Exports and Imports in the UK Textile Machinery Industry

	Exports (£ thous of textile Machinery)	Imports (£ thous of textile Machinery)
1979	216,200	122,200
1980	241,600	104,300
1981	-	-
1982	212,404	103,269
1983	175,270	117,380
1984	194,186	150,078

Source: Author's calculations from Statistics (Census of Production)

Relations with Government

The National Economic Development Office, which is an agency of the government, since its formation in 1962, has had a number of industry committees on which sit representatives from large companies in the industry and senior trade unionists. From the early days of the NEDO the textile machinery industry has had its own industry committee(105).

Originally these separate industry Committees were seen as part of the government's planning process, but in recent years their role has changed somewhat to become a form of discussion of problems in specific industries, a channel of communication for special studies and reports, and a centre of advice to the Director General of the NEDO in his discussions with the heads of government and trade unions. The current performance of the UK textile machinery industry is at present subject to considerable discussion in this form.

The Textile Machinery EDC Report "UK Textile Machinery for a Changing World"(106) revealed that the EDC brings together leading representatives of management, unions and government with the objective of helping companies in the industry to become more efficient and competitive and hence to increase their share of world and UK markets.

Government interventions affecting the industry have centred on schemes to promote investment in manufacturing industry. These have included investment grants, and credit guarantee facilities.

Rothwell(107) indicated that "the United Kingdom Government expends relatively large sums annually on the support of a background scientific and technical infrastructure in the form of Government research establishments, universities and some financial support to RAs. Direct financial assistance is also available to industry in the form of support for innovation from NRDC and development grants from the Department of Industry".

Earlier government assistance in this industry occurred in the mid 1970s, making £20 millions (at that time about $36 million) available, but only about £12 millions of assistance was taken up - the 52 individual offers included a number of subsidiaries of Stone Platt and Sears[108].

But this is only a beginning. The supply of marketing information and support for UK firms aid in increasing international competitiveness, and formation of new business were also areas in which the government play a role.

A report by NEDC's Textile Machinery Sector Working Party[109] mentioned that "against this general background of reduced activity owing to serious shortage of orders, the SWP has concerned itself increasingly with marketing tactics, and especially export marketing. UK companies and Government are now being urged to concentrate their commercial efforts on key overseas countries which account for 50% of world textile imports. The BTMA has worked intensively in this direction via both selective missions, the organisation of export seminars, and the establishment of a poll of information and product clubs designed to develop co-operation in exporting.

One significant initiative now being undertaken by the SWP is that devoted to possible improvements and new developments calculated to broaden the range of textile machinery products manufactured in the United Kingdom.

The NEDC's report said "that investigation into the machinery requirements of both the knitting and wool textile industries identified a large volume of imports simply because there was no UK product to consider, as well as many others where the UK product was available but was judged to be technically inferior". As a result, the SWP are currently measuring the effective UK product range of textile machinery against world market requirements so as to produce a list of product gaps and inadequacies.

Also the SWP now plans to compare the UK attitude to that of such competing countries as Germany, Switzerland and Italy.

In this aspect, another factor felt to be relevant to the UK industry's competitiveness against EEC countries or any others are the increased investment and the political and industrial environment that a number of them have been adopted.

Miles[110] said that "the textile machinery industry, along with many other branches of engineering, is now having to adapt itself to the same policy of self-sufficiency. Many countries such as India and Brazil for instance are building up their own engineering industries behind protective walls, and are looking for know-how agreements with European and American engineering companies rather than products to buy".

F Thies[111] took a similar view and pointed out that "Italy has been putting up certain technological and financial restrictions for the import of textile machines which are reducing the possibility of exporting to Italy certain types of machinery to nil, whereas in Spain the hindrance to export is in the form of extremely high tariffs.

Smalley[112] also stated that "if we in the UK look at our West German textile machinery competitors, what do we see? A number of very large or giant companies? No ... By and large the West German industry is composed of medium-sized, family-owned or largely family-influenced firms, no doubt supported by long term investment or loans from the German industrial banking system, competent - thriving - growing - confident. We see firms operating in a political and industrial environment that encourages growth and enterprise, that demands high productivity and which supports and justifies new investment".

As Table 5.13 shows there is wide variation in normal interest rates between countries with major textile machinery industry.

The actual rate charged to a textile machinery manufacturer would depend upon the duration of the credit and the degree of risk.

Table 5.13: Money Market Interest Rates (1981-2 - 2%)

	1981	1982
Belgium	11.46	11.44
France	15.26	14.73
Germany	12.11	8.88
Italy	19.60	20.18
Netherlands	11.01	8.06
United Kingdom	13.29	11.57
Switzerland	7.82	3.87
USA	16.38	12.26
Japan	7.69	7.12

Source: I M F International Financial Statistics, 1983.

However, in most producer countries the consensus rates are below those charged commercially. Hence some countries used to subsidise interest on export credit to enable exporters to offer consensus rates. Export-tied development assistance has been combined by French authorities with residual finance on consensus conditions "credit mix".

In 1978 the United Kingdom announced plans to introduce similar mixed credit arrangements but these have not been implemented(113).

At this point The Textile Machinery EDC(114) demonstrated that many textile machinery companies had difficulty in finding the export finance and insurance the need. In many ways the industry's characteristics make it a special case:

1. It has high dependence on exports.
2. It needs to supply the fast growing markets in the "South and East" of the world which can be risky.
3. Its exports are not in "Parcels" big enough to attract the special support available to large overseas contracts.
4. Customers normally expect and get medium-term credit from foreign competitors.
5. Many companies have undergone financial shake-ups which may make assessment of their past performance irrelevant.
6. The insurance and credit needs of exporting strain balance sheets more than a comparable volume of home business.

As far as the UK textile machinery industry is concerned, studies that have been undertaken in the UK to identify the role of government in promoting the textile machinery industry revealed that governments have given less support to machinery manufacturers than have our foreign competitors.

Rothwell[115] in his study revealed that "the textile machinery respondents clearly felt that they had suffered unduly because of labour problems, that some foreign manufacturers had gained an unfair advantage through offering highly advantageous Government-backed credit facilities, that company taxation in the UK has been too high and that the UK Government have interfered too much in the affairs of industry".

Also the Commission of the European Communities Report[116] in 1984 indicated that "within the EEC, there is some concern on the part of textile machinery manufacturers whose government are less inclined to support them than those of foreign competitors. These grievances were strongly expressed to us in interviews in the United Kingdom".

Finally the NEDC's Textile Machinery Sector Working Party Report "UK textile industry is struggling to survive"[117] stressed

that the Government should substantially increase "their contribution to new product development costs". This, says the report, would enable UK textile machinery manufacturers to update and widen their range of products.

Thus, the competitive situation of the UK textile machinery industry has also been affected by factors outside the control of individual companies - these include interest rates and credit guarantees (partly determined by government policies and partly by international market forces) heavy government regulations plus inadequate import control programme that must be strengthened. Furthermore foreign competitors are producing under better conditions than the textile machinery manufacturers in Great Britain.

Conclusion

It can be seen that the textile machinery industry in Great Britain has an important role to play through employment, import saving and export. However, the industry today is in a state of decline. Major problems in the industry, lack of an efficient marketing technique, shortage of skilled labour, foreign competition in the home market, and less support from government.

Having concluded that the following chapter presents details of the research objectives and methodology used in this study.

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CHAPTER SIX

Design of the Field Study

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Design of the Field Study

Introduction

The overall purpose of this chapter is to explain the steps taken and methods used by the researcher to collect the data for this study. As such this chapter aims at exploring the methodology conceived and research setting rather than the analysis of the findings themselves which is kept for the next chapter.

The design of the field study passed through four successive, yet equally important stages. These include:

1. Statement of research problems and objectives.
2. Formulation of hypotheses.
3. Identification of the sample.
4. Development of the questionnaire for collecting the data.

Each of these stages is discussed in turn in the following pages.

1. Statement of research problems and objectives

Throughout the literature review an attempt was made to examine the most important factors that help or hinder the international competitiveness of different firms operating in the market place.

The following are some of the important observations and problems which have arisen from our literature review.

Firstly: Marketing emerged as an important tool that influences the international competitiveness of different firms operating within different industries in the world market. The Japanese and West German firms as we have found became competitive largely through their superior marketing strategy.

On the other hand we have found also that the major reason behind the steadily declining competitiveness in the majority of British industries is the use of a selling oriented approach to compete in the market place. This in turn puts the blame for the United Kingdom's lagging competitiveness on British management.

With respect to price as a marketing weapon it was established that it is an important factor contributing to company, industry and national competitiveness. A product that is priced markedly out of line from its rivals and without compensating non-price advantages will normally fail to sell and so price acts at least as a constraint.

However, it is seldom that price only is relied upon to achieve competitive advantages in the market place. It is the view of most marketing managers that their programme will be most successful when its major competitive impact is made on a non-price basis. Price alone will not do the job.

As for the contribution of non-price factors to competitiveness, we have found that these elements play an important role that affects the international competitiveness of different firms operating in the world market.

Again, seen in this light the growing competitive advantages of Japanese and West German firms in many industries and the decline in competitiveness of the UK producers in international market for their products are the result of different non-price competitive strategies.

It can be seen from the above findings that marketing factors have become a major aspect that determine a firm's competitiveness. Through these factors a firm operating within an industry can satisfy consumers' needs and sustain competitive advantages over its competitors in the market place.

Secondly: Our literature review outlined that there are other factors that help or hinder the international competitiveness of different firms. It was found that the competitive situation of many industries has also been partly affected by factors outside the control of individual companies. These include exchange rates and conditions placed by national governments on the use of currencies and interest rates and credit guarantee facilities. Government funding of R & D is another area of distinct advantages for many firms in different industries. In addition the culture and historical background of the people in the society can affect the competitive situation of any industry.

As we have seen from our literature review, government relations in Japan have contributed significantly to the international competitiveness of Japanese industry (in contrast to the adversary position that often characterises UK government-industry relations.

Thirdly: As far as the textile machinery industry is concerned we have found that competition in this industry is at the international level. The main elements in the competition are marketing factors.

Successful textile machinery firms from different countries such as West Germany, Switzerland, Japan, Italy and the UK achieve their competitive advantages through product innovation and successful marketing.

Therefore, we concluded that long-term prosperity in the textile machinery industry as in all else, depends on producing what the customers want in quality and price which are better than those of the competition.

Again, we have found that the competitive situation of the textile machinery industry has also been affected by factors outside the control of individual companies.

In sum we have established that competitive advantages is not static but dynamic and government policies that influence the competitive advantage of particular firms in particular sectors can alter the pattern of comparative advantage over time.

Thus, as the above findings suggest in advanced industrial economies, competitive advantages must be understood as a cumulative affect of both company capacities and government policy choices.

The field work of our research is concerned with the British textile machinery industry, which, as was mentioned earlier, is in a state of decline. However there is no available detailed study to help companies in the industry to become more efficient and competitive and hence to increase their share of world and UK markets.

The need for in-depth research to identify the factors influencing the competitiveness of the UK textile machinery industry has been underlined by the Textile Machinery Economic Development Committee in their recent report in February 1985.

The Research Objectives

Having stated the research problem, we shall now summarise our major research objectives. Again, as was pointed out the UK textile machinery industry has lost its international competitiveness in the market place. At this time the industry faces keen competition from foreign producers abroad and in the UK market.

Consequently the study will explore the following issues:

1. The sector's survival and prosperity may depend on the ability with which firms within it have adopted and implemented modern marketing techniques. We attempt in our research to assess

how appropriate present policies towards marketing in the majority of the firms operating within the industry are to meeting the challenge they appear to be facing, in particular from foreign competition. Specifically, is the level of the marketing technique adopted by the British firms in the industry adequate to meeting these challenges?

2. To discover which policies and which particular patterns of marketing are associated with competitive success.

3. To gain an understanding of the reasons underlying the decline of the UK textile machinery industry's international competitiveness. In particular the research focuses on understanding the role that marketing factors have played in the declining competitiveness of the UK textile machinery industry.

4. What improvements can British government and management make to avoid this decline and improve their competitive situation?

2. Statement of Hypothesis

1. "The marketing techniques used by the majority of British textile machinery firms are not adequate to meeting the challenge the firms appear to be facing from foreign competition".

2. "Poor marketing and more specifically non-price factors have been a significant restraint on the British textile machinery industry's international competitiveness".

3. "Government aid to the UK textile machinery industry is not sufficient to maintain its competitiveness".

3. The Sample

It was thought that it would be of benefit to the researcher and the study as a whole to contact the British Textile Machinery Association to ask them to participate in carrying out this study. Therefore, a letter was sent to the director of the British Textile Machinery Association to ask him and his colleagues to participate in the study in return for giving every company a copy of the overall results when the research was completed. Initially, after explaining the purpose and the benefits of the study to him he agreed, however, the final agreement was dependent on approval by the Council of the Association.

After three months the researcher received agreement to participate in the study, but, due to the delay the decision had been taken to carry out the study independently of Association support.

The sampling frame used in selecting companies for this study was the BTMA directory 1985. The directory gives names and addresses of firms working in the UK textile machinery industry, together with the product lines of each, both in the UK and export ;markets. 140 firms are listed in this index, out of which 12 were excluded since they are not involved in either manufacturing or selling of textile machinery.

The questionnaire with a covering letter describing the objective of the study was mailed to the managing director of these companies.

The reasons for choosing the managing directors to be addressed were as follows:

1. As mentioned in the literature review marketing functions are the responsibility of all the management in an enterprise, therefore it was natural to expect the managing director to be among those who took part in these functions.

2. In the absence of any information about the identity of and position in the company of the executives who actually participated in carrying out the marketing activities, it was felt that the managing director was the most appropriate person to approach in such a situation.

3. If the managing director was prepared to delegate completion of the questionnaire to an executive responsible for marketing we could anticipate greater co-operation than if we had approached such an executive directly.

At the time of scheduling the plan of this field study it was decided to wait a period of four weeks from mailing the questionnaire before taking any further steps (i.e a wait-and-see period). If the rate of response was in the right direction, the analysis of the findings could begin, otherwise a follow-up process had to commence.

At the end of this period the responses were not as encouraging as hoped for. Taking the company as a unit of analysis 36 out of 128 firms responded. From these, 19 replied positively (i.e return of our questionnaire wholly completed), while the remaining 17 companies replied negatively (i.e sent letters stating the reasons for not completing the questionnaire). Table 6.1 indicates the overall pattern of response before and after follow up was made.

The reasons given by some of those who replied negatively are classified and presented with some typical explanatory quotations from their replies.

1. The questionnaire involved some questions which were considered by some companies to be confidential to their business. The following quotations, as stated by some managing directors, may illustrate this fact.

Table 6.1: The Overall Pattern of Response

Type of Response	No	%
Positive response	31	24.2
Negative response	23	17.9
Post Office returns	6	4.7
Non-response	68	53.1
Total sample	128	100

"Sorry not our policy to complete these questionnaires."

"We regret to advise you, we are unable to comply with your request to complete your questionnaire as we consider some of the questions to be confidential to our business requirements."

"Unfortunately the questionnaire which you sent to us appeared to involve detailed information, therefore we are not able to assist with your survey."

2. Work pressure was another main reason for refusing to co-operate. Perhaps this has also been the reason behind many companies making it a general policy not to assist. As one managing director put it "Further to your letter dated March 1986, we are returning your questionnaire incomplete as regretfully we do not have the time or staff to meet your request."

3. Two companies justified their negative responses on the grounds of smallness in size and irrelevance of the questionnaire to their operations.

4. One managing director agreed to co-operate after being telephoned and under the condition of visiting them for personal interviews.

The above situation, together with the desire to obtain as many responses as possible, a follow-up letter signed by the researcher was sent to each of the 92 non-respondents companies asking their co-operation and offering to supply a copy of the questionnaire if it had been mislaid.

Two weeks after sending a follow-up letter the researcher received 14 questionnaires. Of these, 9 companies replied positively while 5 companies replied negatively and another 4 asked for another copy of the questionnaire.

After receiving the answers from the above 4 companies, the responses reached 24.2% (31 out of 128 firms). Table 6.2 shows the managerial position of responding person.

Table 6.2: Managerial positions of respondents to the Questionnaire

Managerial position	% of Respondents
Managing Director	21 (67.7%)
Technical Director	2 (6.5%)
Chairman	2 (6.5%)
Marketing and Sales Manager	4 (12.9%)
Others	2 (6.5%)
TOTAL	31 (100%)

The above rate of response was considered adequate as a basis for analysis since the study was governed by the number of firms which are interested in the topic of the research and are willing

to give their help in carrying out the study. From this angle obtaining data from 31 firms which are reasonably representative of a cross-section of the industry in terms of the number of employees could be satisfactory*.

4. Development of the Questionnaires

This part is concerned with the questionnaire developed for data collection. Four aspects are commented on: the source of ideas for questions, the type of question, the type of scales, and the rationale for each question.

Sources of ideas for questions were based on a detailed search of the literature for significant ideas relevant to marketing and competitiveness from the theoretical part of this study, in addition to important information obtained from field research studies conducted in different industries all over the world. Suggestions made by Professor Baker, the researcher's supervisor, a detailed discussion with Susan Hart and Caroline Black, Research Assistants in the Department of Marketing, University of Strathclyde, were also considered.

With regard to the type of questions, two alternatives are usually available, open-ended, and closed questions. Each of these types of questions has its own merits and demerits. While the first are easy to ask, may generate more information through allowing free expression of ideas and views, they need more time to answer and are still more difficult to analyse. Closed questions are easier and quicker to answer. They require no writing, which means that more questions can be asked within a given length of time and that more can be accomplished within a given sum of money. However, in using closed questions we shall never know what the respondent said or thought of his own accord.

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* Distribution of the sample companies in terms of number of employees are indicated in the next Chapter (Table 7.3).

Concerning the issue of scaling, two related points are to be mentioned: the type of the scale and the number of points used in that scale. For the type of scale, the rating scale has been used in rating the answers of the questions in the questionnaire. Two reasons were behind the use of such scales, previous studies[1] showed that rating scales were rated more highly by respondents than other types of scales, and this type of scale was found easier to analyse by the researcher.

Regarding the number of points a scale should contain, Moser and Kalton[2] stated that "if the scale is divided too finely, the respondents will be unable to place themselves, and if too coarsely, the scale will not differentiate adequately between them. Often five to seven categories are employed, but sometimes the number is greater". Taking the above as a basis, the scale used in the questionnaire is of a rating type, running on a five point scale with point (1) considered the highest point and point 5 the least point on the scale.

The questionnaire, which is reproduced in the Appendix encompasses 4 parts, these are as follows:

Part One: Company Background

This part consisted of one question which was divided into five items, the first of which was intended to identify the main products manufactured by the companies studied. Item (b) to measure their sales which have been made in domestic and overseas markets. Item (c) to classify the firms according to the number of employees. Item (d) to classify firms according to their turnover. Item (e) to indicate the level of profits and losses which have been achieved in the UK during 1984.

Part Two

This part of the questionnaire was concerned with the competitive situation of the British textile machinery industry generally.

Question 2 was designed to gain understanding of the reasons underlying the decline of the UK textile machinery industry's international competitiveness. In particular the question focuses on understanding the role that marketing factors may have played in the declining competitiveness of the UK textile machinery industry.

In Question 3 firms were also asked to indicate the most important factors contributing to the traditional competitiveness of the British textile machinery industry. The question aimed at finding out the link between marketing and competitiveness in domestic and foreign markets.

Question 4 is concerned with the role of government in improving the competitive position of the UK textile manufacturing industry.

Part Three: Marketing Orientation and Organisation

Question 5 attempts to determine the attitudes of firms toward the marketing concept.

Questions 6 to 11 are designed to examine the characteristics of the marketing department that might reflect the marketing concept.

Part Four: Current Marketing Practice

This part of the questionnaire was designed to obtain information related to the current status of marketing practice in the companies studied. The following areas were covered: market planning, market research, product policy, services, pricing, promotion, competitor activities and controlling the marketing functions. The remaining questions are intended to secure information regarding the role of government in improving the competitive position of the companies surveyed.

Questions 12, 13, 14, and 15 were concerned with marketing planning.

Question 12 asked firms whether or not they have a formal (i.e written down and published) marketing plan and what period does it cover.

Question 13 asked respondents to rank in order of importance their marketing objectives in both domestic and foreign markets.

Question 14 asked firms to indicate how these objectives are made known to the managers responsible for their achievement.

Question 15 attempts to explore the firms' opinion on a list of marketing information concerning the formulation of their marketing plans.

Question 16 was concerned with market segmentation.

Questions 17, 18, 19, and 20 are designed to assess the use made of market research.

Question 17 asked firms whether or not they have carried out any marketing research, and their approximate annual expenditure in carrying out this function.

Question 18 was designed to investigate the extent to which firms depend on their own staff in undertaking marketing research programmes.

Question 19 attempted to explore firms' opinions on a list of marketing research functions, with which they might have experience in doing their business.

Question 20 attempted to assess the main reasons and obstacles which deterred firms from undertaking any market research.

Questions 21, 22, 23, 24, 25, 26, 27 and 28 were devoted to assess the product policy adopted.

Question 21 required respondents to indicate how often they change/modify their machines and for what reasons.

Question 22 asked firms whether or not they have a formal (i.e written down and published) policy towards the development of new products.

Question 23 also requested respondents to rank in order of importance the major factors which influence their decisions to innovate.

Question 24 asked firms whether or not they test new products before launching them to the market, and what criteria they have used.

Questions 25 and 26 aimed at measuring the relative importance of a list of marketing factors in contributing to new product success or failure.

Questions 27 attempted to explore firms' opinions on a list of factors which deterred them from innovating.

Question 28 aimed at measuring the degree of sophistication of the firm's products.

Question 29 aimed at assessing the use of product service by asking respondents whether or not they provide their customers with any kind of service, and how frequently these services are offered.

Question 30 required respondents to rank in order of importance their pricing objectives, its aim being to measure the extent to which firms set their pricing objectives according to the marketing concept.

Question 31 attempted to measure the extent and use of different pricing methods in the home and export markets, in order to determine which pricing method predominates.

Question 32 asked respondents to compare their prices with those charged by their competitors in domestic and export markets.

Questions 33 to 38 are concerned with promotional efforts.

Question 33 asked firms whether or not they promote their products and the relative importance of different promotional methods which have been used.

Question 34 asked respondents to determine the amount of money they spend on advertising and promotion, while Question 35 was concerned with identifying the major methods employed by companies in determining their promotional budget.

Question 36 attempted to explore the firms' opinion of the relative importance of a list of criteria that might be used in sales personnel selection.

Questions 37 and 38 were devoted to measuring the extent to which sales personnel were given any form of training and motivation.

Questions 39 and 40 aimed at examining the importance of the application of marketing principles related to distribution in selling more machines in domestic and foreign markets.

Question 39(a) aimed at determining the type of distribution channel used by respondents in the UK markets.

Question 39(b) aimed at identifying the relative importance of different methods of distribution used by companies to sell their main product in export markets, while Question 40 explored the main reasons for which textile machinery companies chose those types of distribution channels.

Question 43 aimed at measuring the relative importance of each marketing factor examined in this research in contributing to sales in both the UK and export markets.

Questions 41, 42, 44 and 45 are concerned with competition.

Question 41 attempted to examine the nature of competition and the major source of this competition in the UK textile machinery industry.

Question 45 was designed to explore whether or not respondents studied competitors' activities and which factors they considered in their evaluation.

Questions 42 and 44 asked respondents to compare UK machines with their competitors in terms of reliability, price, design, delivery, after-sales service, sales force, image and reputation, advertising and sales promotion, and finally distribution system.

Question 46 was intended to examine the extent of use of different methods of control.

Question 47 is concerned with identifying the relative importance of different bases for evaluating the marketing performance of the companies studied.

Question 48 and 49 were designed to explore governmental aids received by companies, while Question 50 aimed at determining further suggestions which the government might take to improve the competitive position of the firms surveyed.

In the next chapter we will analyse the results obtained through the use of this questionnaire.

REFERENCES

1. See for example, M J Baker, Marketing New Industrial Products, London, The Macmillan Press Ltd, 1975.

2. C A Moser and G Calton, Survey methods in social Investigation, 2nd Edition, Heinemann Educational Books Ltd, London, 1971, pp.350-351.

CHAPTER 7

Analysis of the Field Study Findings

CHAPTER 7

Analysis of the Field Study Findings

Introduction

The objective of this chapter is to describe and analyse the findings of our survey in order to test the validity of the three hypotheses put forward in the previous chapter.

Briefly the aim of this survey is to explore, firstly, the extent to which respondent firms have positive attitudes towards the marketing concept and to what extent these attitudes have been reflected in the organisational flexibility of these firms. Secondly, the actual marketing activities carried out by the UK textile machinery firms to face foreign competition in both UK and export markets, as well as their view on the relative importance of various marketing factors in achieving competitive success in the field of textile machinery. Thirdly, to gain an understanding of the reasons underlying the decline of the UK textile machinery industry's international competitiveness. In particular the investigation focuses on understanding the role that marketing factors have played in the declining competitiveness of the UK textile engineering industry and the means by which other countries have avoided or overcome similar circumstances.

It is assumed that by investigating such areas, it is possible to determine the strengths and weaknesses of the British textile machinery industry compared with their foreign competitors and hence to take the necessary action by management and government to improve and maintain the international competitiveness of the industry in the world market.

With regard to the choice of certain statistical techniques for drawing inferences regarding the three hypotheses put forward

in the previous chapter, it should be noted that the initial task of any analysis is often a determination of the basic distributional characteristics of the variables. In this study, the statistical methods used in analysing the data are organised and presented as follows:

- The presentation of the basic distributional characteristics of the variables through frequency.

- Comparison of means for ranked questions in order of importance, e.g "extremely important to not important at all) the lower the mean, the more important the factor was considered by respondents.

In addition to the above, the analysis will be supported with some selected quotations from the raw data and the opinions of the marketing and managing directors of some textile machinery firms successful in the world market.

The issues under investigation in this chapter will be presented in three broad sections as follows:

SECTION ONE: Marketing Orientation and organisation

Introduction

1. Background to firms in sample.
2. Attitudes to marketing and the marketing concept
3. The organisational dimensions of the marketing concept
   - Existence of a marketing department
   - Extent of marketing training programme
   - Use of specialist marketing services
   - Degree of authority
   - Extent of co-operation with other departments

Main Conclusion

SECTION TWO: An assessment of the current practice and performance of the marketing functions carried out by British textile machinery firms to face foreign competition:

1. Marketing planning
2. Market segmentation
3. Market research
4. Product policy
5. Services
6. Pricing
7. Promotion
8. Personal selling
9. Distribution
10. Key factors for competitive success
11. Competitor analysis
12. Evaluating and controlling the marketing functions.

Main Conclusion

SECTION THREE: Factors affecting competitiveness in the UK textile machinery industry:

1. Reasons behind the decline in the UK textile engineering industry's international competitiveness.

2. Factors affecting the future competitiveness of the UK textile machinery industry.

3. What steps government might take to improve the competitive position of the industry.

Main Conclusion

SECTION ONE

Market Orientation and Organisation

Introduction

The philosophical dimension of the marketing concept urges that the actual objective of all decisions made by the firm must be the satisfaction of customer requirements profitably.

For the textile machinery industry the adoption of this concept among all companies is regarded as essential to competitive success.

In this section, an attempt is made to examine the extent of adoption and acceptance of the marketing concept in the firms under investigation in both philosophical and practical terms. This comprises two steps:

- Attitudes to marketing and the marketing concept.
- The organisational dimensions of the marketing concept.

Some background information about the companies, however, is presented first.

1. Background to firms in sample

Clearly before an analysis can be made from the data to assess the extent of the adoption of the marketing concept by British textile machinery firms, some background to these firms is needed.

Main Product Group

The British Textile Machinery Association (BTMA) divided machinery into groups by the following purpose:

- Processing fibres
- Producing fabrics and carpets
- Finishing and other textile machinery
- Accessories

Table 7.1 indicates that the respondent firms covered all types of product categories*. From the table it can be seen that 6 (19.4%) firms are producing textile machines for processing fibres, 2 (6.5%) firms are producing fabrics and carpet machines, 9 (29.0%) firms are producing finishing machines, 8 (25.8%) firms are producing parts and accessories and the remaining 6 (19.4%) firms are producing general textile machines.

Clearly the majority of these firms are producing finishing and other textile machinery. However, it must be noticed that some firms in the sample had activities in more than one of these categories.

Even these groupings are too broad to describe the degree of specialisation. For example in the third category there are some firms which produce finishing machines or components and do not produce fibres equipment and vice versa. Since the categories listed and sub-categories within them are complements rather than substitutes, one cannot use this classification to describe the implementation of the marketing concept within each category.

Involvement in Export and Domestic Markets

Table 7.2 shows that the firms included in the sample sell their output in domestic as well as foreign markets. In money terms the table indicates that 12 (40%) out of 30 firms sold over 40% of their output to the UK market. Among these two firms sell all their output (100%) in the domestic market while the remaining 18 (60%) made less than 40% of their total sales from the UK market.

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* See Chapter Six for response rate.

Table 7.1: Analysis of Responses by Product Category

Categories	N	%
For Processing Fibres	6	19.4
For Producing Fibres and Carpets	2	6.5
Finishing and other textile machinery	9	29.0
Accessories	8	25.8
Others	6	19.4
TOTAL	31	100.0

Table 7.2: Involvement in domestic and export market(1)

Categories	UK(2)		Export(3)	
	N	%	N	%
Under 40%	18	60.0	5	17.9
40 - 65%	7	23.3	7	25.0
Over 65%	5(4)	16.7	16	57.1
TOTAL	30	100.0	28	100.0

1. Number of cases included in the sample = 31 = 100%
2. Number of valid observations in UK market = 30 = 100%
3. Number of valid observations in export market = 28 = 100%
4. Among these companies two sell all their output in the domestic market.

With regard to export the table shows that 23 (82.1%) out of 28 firms exported over 40% of their output to foreign markets and the remaining 5 (17.9%) made less than 40% of their total sales from abroad. This predominance of export sales extended to each of the main product groups.

Distribution of Sample Companies by Number of Employees, Turnover and Losses and Profits

Table 7.3 summarises the distribution of enterprises by size of employment, turnover, and their performance in terms of profits and losses in the UK during 1984. The data reveals the following information.

1. The sample contains a large number of small firms which play an important role in individual product markets, 28 (90.3%) out of 31 firms employ less than 200 and only 3 firms employ over 200. These data to a large extent reflect the structure of the British textile machinery industry in terms of the number of employees*.

2. Over half of the companies studied 19 (61.3%) actually managed to achieve profits in 1984. Only 3 (9.7%) lost money, while the remaining 9 did not disclose the data.

2. Attitudes to marketing and the Marketing Concept

In this section attitudes towards the marketing concept philosophy were investigated in the firms studied. The question used for data collection on this issue included 7 statements concerned with the relevance of marketing to competitive success, the meaning of marketing, product orientation, selling orientation and marketing orientation.

Respondents were asked to score each statement along a six point scale, ranging from "totally agree" to "totally disagree".

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* See Chapter 5

Table 7.3: Distribution of the sample companies in terms of number of employees, turnover, and profits and losses

Categories	All	Large	Small
Number of employees*			
Fewer than 200	28	-	28
200+	3	3	-
Turnover (£ million)			
Turnover less than 2	20	-	20
2 - 5	5	-	5
5 - 10	1	-	1
Over 10	2	2	-
Not stated	3	1	2
Profits and Losses			
Profits	19	1	18
Losses	3	-	3
Not stated	9	2	7
TOTAL	31	3	28

* The sample size in this study will be divided according to the number of employees into two categories. These are as follows:

Small firms = Fewer than 200
Large firms = 200 and over.

The statements included positive attitudes towards the marketing concept and others implied negative attitudes. Table 7.4 shows respondents' views on each statement.

Table 7.4: Managers' awareness of the importance of Marketing and Customer sovereignty

	Agree			Disagree			Total
	Totally	Quite	Little	Little	Quite	Totally	
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)
1. Competition and innovation from other firms have increased the importance of effective marketing	11 (35.5)	13 (41.9) **29 (93.5)	5 (16.1)	2 (6.5)	- **2 (6.5)	-	31 (100)
2. Marketing is mainly concerned with stimulating demand for a product	4 (12.9)	13 (41.9) 23 (74.2)	6 (19.4)	2 (6.5)	2 (6.5) 8 (25.8)	4 (12.9)	31 (100)
3. Marketing is no more than the sale of a product	-	3 (9.7) 5 (16.1)	2 (6.5)	3 (9.7)	7 (22.6) 26 (83.9)	16 (51.6)	31 (100)
4. A broad comprehensive definition of marketing is selling the firm's products to their customers	6 (19.4)	11 (35.5) 22 (71.0)	5 (16.1)	3 (9.7)	4 (12.9) 9 (29.0)	2 (6.5)	31 (100)
5. Customer needs should be the most influential factor in making all the firm's policies and decisions	13 (41.9)	11 (35.5) 29 (93.5)	5 (16.1)	-	2 (6.5) 2 (6.5)	-	31 (100)
6. The aim of the company should be to sell what products it can offer rather than offering what customers want	-	5 (16.1) 7 (22.6)	2 (6.5)	4 (12.9)	8 (25.8) 24 (77.4)	12 (38.7)	31 (100)
7. The world will beat a path to the door of the firm which makes a better product	8 (25.8)	10 (32.3) 25 (80.6)	7 (22.6)	2 (6.5)	2 (6.5) 6 (19.4)	2 (6.5)	31 (100)

* Number of valid observations.

** Total positive or negative side of the scale.

From Table 7.4 it can be seen that the majority of all respondents agree that competition from other firms has increased the need for competitive marketing. In this respect they were in full agreement with the marketing concept that effective marketing is based on competition and innovation in the market place.

With regard to the meaning of marketing, most respondents disagreed that marketing is no more than selling. This means that marketing is not just selling but includes other activities which enable them to produce a product that satisfied the customers' needs. This was clear in their response to the following statement which appear in the table concerned with customer sovereignty, whereas the great majority of respondent firms recognised customers' sovereignty and accepted that their wants should be the crucial factor when making any decision in their companies.

However, there was an interesting finding regarding the last statement in the table which tried to assess to what extent respondent firms were product-oriented and to what extent they recognised the need for marketing. 80.6% of the respondent firms, surprisingly, agree with the statement that "the world will beat a path to the door of the firm which makes a better product", which reflects a strong product orientation.

From the above it can be stated that, although the respondent firms regarded marketing as essential to their business and put customers' needs first in making their decision, they tended to think of marketing mainly as producing a better product. However, they should recognise that the product is only part of a larger marketing mix which must be integrated to relate a company to its market. In other words the answers given by some respondents to illustrate their view regarding marketing orientation may be somewhat exaggerated and did not reflect a positive marketing attitude.

3. The organisational dimensions of the marketing concept

The organisational dimensions of the marketing concept can be viewed as an indication in determining if the marketing concept has been applied in any firm. More specifically, the extent to which an organisation devotes a considerable amount of recognition to the importance of the marketing department, the use made of specialist marketing services, the authority given to participate in carrying out marketing activities and the degree of co-operation with other departments are a test of its implementation of the marketing concept.

As such, the organisational dimensions of the marketing concept will be discussed below in the following order:

- Existence of a marketing department
- Extent of marketing training programme
- Use of specialist marketing services
- Degree of authority
- Degree of co-operation with other departments

Existence of a marketing department

The existence of a marketing department responsible for identifying customers' needs and wants and reflecting them in carrying out its policies is essential for the implementation of the marketing concept.

In this regard we asked our respondents the following question:

Q.6 Does the firm have a marketing department?

Yes ☐

No ☐

If Yes, approximately how many people does it employ?

To begin with the first part of the question, our findings are summarised in Table 7.5.

Table 7.5: Existence of a marketing department

Does the firm have a marketing department?	N*	%
Small		
Yes	9	32.1
No	19	67.9
Total Category	28	100.0
Large		
Yes	3	100.0
No	-	-
Total Category	3	100.0

* Grand total - 31

The above table demonstrates that only 12 firms of the sample studied have a marketing department, including all of the large firms.

Considering the second part of the question which is concerned with the number of people who work in the department of marketing, our findings indicated that 8 firms reported marketing departments with less than 5 staff. One firm reported a marketing department with more than 5 staff. The three large firms in the sample reported marketing departments with more than 10 staff. Among these one firm reported a marketing department with more than 35.

Hence the existence of the marketing department is closely related to the size of the firms. In large firms the number of staff tended to be high, while in small firms the number tended to be small. Two managing directors in the small firms reported that the marketing functions were carried out by them.

Extent of marketing training programme

Adopting the marketing concept in the textile machinery industry may require a significant change in the skills of firms' marketing staff in order to face foreign competition.

Respondents were asked whether or not their companies engaged in marketing training programmes. The findings are contained in Table 7.6.

Table 7.6: Engage in marketing training programmes

Does your firm engage in marketing training programmes?	N*	%
Small		
Yes	4	14.8
No	23	85.2
TOTAL	27	100.0
Large		
Yes	2	66.7
No	1	33.3
TOTAL	3	100.0

* Grand total - 30

Table 7.6 shows that among the surveyed companies there were only 6 firms which engage in marketing training programmes.

With regard to the sources of training the findings indicated that the 6 firms which reported the use of marketing training carried out their own training courses, while two of these firms did this also in collaboration with other institutions.

From the above findings it appears that training of personnel for marketing is a neglected area in many firms, especially the

smaller ones. This may be due to the lack of resources in terms of investment and skilled technical staff to be engaged in the function. As a result it is evident that if the sample is representative of the industry as a whole then there would appear to be a strong need for more training in marketing.

Use of specialist marketing services

Respondents were asked whether or not they are using any kind of specialist marketing services. Seven areas of outside marketing services were suggested by the questionnaire to the respondents who were also requested to add any others which were not included. The results are summarised in Table 7.7 which indicates that the majority of companies did not make use of professional marketing services and this may reflect a lack of marketing orientation in this aspect. Significantly, this kind of marketing orientation is not possible without the genuine understanding of the market place which is derived from sound market research and professional marketing.

Table 7.7: Use of specialist marketing services

Does your company employ any of the following outside services?	Yes		No	
	N*	%	N*	%
1. Marketing research agency	1	3.2	30	96.8
2. Advertising agency	13	41.9	18	58.1
3. Marketing consultants	5	16.1	26	83.9
4. Training consultants	4	12.9	27	87.1
5. Design consultants	12	38.7	19	61.3
6. Public relations consultants	6	19.4	25	80.6
7. Sales promotion consultants	2	6.5	29	93.5

* Base = 31 = 100%

Degree of authority

Respondent managers were asked to indicate to what extent they felt they had been given enough authority for carrying out their duties. The findings indicated that almost all respondent managers feel they have enough authority in carrying out their job.

They were also asked to indicate to what extent they were involved in setting up the marketing functions. Seven functions were suggested by the questionnaire to the respondents who were also requested to add any others which were not included. The results are reported in Table 7.8 which indicates that all respondent managers have participated to a great extent in setting up the marketing functions and this may reflect a favourable attitude towards the marketing concept philosophy which suggests that marketing functions must be the responsibility of all the managers in the organisation.

Extent of co-operation with other departments

Clearly espousal of the marketing concept involves a broad role for the marketing function within the organisation, R & D Engineering, Design and Finance departments should be infused with a spirit of marketing and the marketing department should interact with them. Indeed, this kind of integration of company functions is thought to be essential for competitive success.

Respondents were asked to indicate the degree of co-operation between marketing and other departments using a five point scale ranging from "very closely" to "not at all". The answers received for this question are illustrated in Table 7.9.

From the table it can be seen that almost all respondents claim to work closely with other departments in their organisation, and this may indicate a further step towards the implementation of the marketing concept to achieve competitive success in the world of textile machinery.

Table 7.8: Extent of participation in carrying out the marketing functions

Marketing functions	To a great extent			Very little		Total	Mean Value
	1	2	3	4	5	*	**
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	
1. Advising directors on marketing policy	20 (66.7)	7 (23.3)	1 (3.3)	1 (3.3)	1 (3.3)	30 (100)	1.533
	*** 27 (90.0)			*** 2 (6.7)			
2. Improving product quality	17 (56.7)	8 (26.7)	5 (16.7)	-	-	30 (100)	1.600
	25 (83.3)						
3. Pricing policy, discounts and credit terms	21 (70.0)	3 (10.0)	3 (10.0)	2 (6.7)	1 (3.3)	30 (100)	1.633
	24 (80.0)			3 (10.0)			
4. Sales force management	19 (65.5)	4 (13.8)	4 (13.8)	1 (3.4)	1 (3.4)	29 (100)	1.655
	23 (79.3)			2 (6.9)			
5. Sales promotion and advertising	16 (53.3)	8 (26.7)	4 (13.3)	-	2 (6.7)	30 (100)	1.800
	24 (80.0)			2 (6.7)			
6. Distribution channel policy	12 (48.0)	7 (28.0)	4 (16.0)	2 (8.0)	-	25 (100)	1.840
	19 (76.0)			2 (8.0)			
7. Marketing research	15 (50.0)	5 (16.7)	5 (16.7)	3 (10.0)	2 (6.7)	30 (100)	2.067
	20 (66.7)			5 (16.7)			

* Number of valid observations.

** The lower the mean the more participation in carrying out the marketing functions.

*** Total positive or negative side of the the scale.

Table 7.9: Degree of working with other departments

Department	Very closely	Quite well	To some extent	Occas-ionally	Not at all	Total	No reply	** Mean
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	N (%)	
1.Manufac-turing	24 (80.0)	4 (13.3)	1 (3.3)	1 (3.3)	-	30 (100)	1	1.300
	28 (93.3)			1 (3.3)				
2.R & D	21 (72.4)	4 (13.8)	3 (10.3)	1 (3.4)	-	29 (100)	2	1.448
	25 (86.2)			1 (3.4)				
3.Engineer-ing	11 (37.9)	10 (34.5)	6 (20.7)	1 (3.4)	1 (3.4)	29 (100)	2	2.000
	21 (72.4)			2 (6.9)				
4.Accounting	12 (41.4)	7 (24.1)	7 (24.1)	2 (6.9)	1 (3.4)	29 (100)	2	2.069
	19 (65.5)			3 (10.3)				
5.Purchasing	11 (37.9)	8 (27.6)	7 (24.1)	2 (6.9)	1 (3.4)	29 (100)	2	2.103
	19 (65.5)			3 (10.3)				

* Number of valid observations.

** The lower the mean, the higher the degree of working with other departments.

Main Conclusion

One main conclusion to be derived from the whole discussion in this section is that a high proportion of the sample professed to hold a marketing orientation placing major emphasis on prior analysis of market needs, adopting products to meet them if necessary. However, this figure may be somewhat exaggerated because some firms still think of marketing from a product orientation. This attitude was supported when examining the

organisation dimensions, as detailed in Tables 7.5, 7.6 and 7.7 which suggest that respondent firms have not taken enough steps to develop this orientation.

In the following section, the aim is to explore the extent to which the marketing concept is effectively applied to the policies and practices of marketing in the firms studied.

SECTION TWO

An assessment of the current practice and performance of the marketing functions carried out by British textile machinery firms to face foreign competition

This section is aimed at exploring the actual planning and performance of the marketing functions carried out by British textile machinery firms to face foreign competition in both domestic and export markets. Moreover, it is aimed at generating information about the important role of some marketing factors in achieving competitive success in the world of textile machinery.

In order to achieve these aims the survey investigated the following areas:

1. Marketing planning
2. Market segmentation
3. Market research
4. Product policy
5. Services
6. Pricing
7. Promotion
8. Personal selling
9. Distribution

10. Key factors for competitive success
11. Competitor analysis
12. Evaluating and controlling the marketing functions

1. Marketing planning

The first investigation in this area was to determine whether or not the respondent companies prepare marketing plans. The answers for this question are illustrated in Table 7.10.

Table 7.10: Existence of Marketing Plans

Does your company have a formal (i.e written down and published) plan?	N*	%
Small		
Yes	9	32.1
No	19	67.9
TOTAL	28	100.0
Large		
Yes	1	33.3
No	2	66.7
TOTAL	3	100

* Grand Total = 31

It can be seen from Table 7.10 that only 10 firms in the sample reported the use of formal marketing planning.

Respondents were also requested to identify more specifically the period of their marketing plans. The answers to this question indicated that six of the firms which reported using marketing planning do not set out a plan of more than one year's duration, three firms reported two or three year plans, while only one firm claims a formal five year planning activity. This suggests that

most firms do not engage in long term marketing planning. It might well be that the austerity of the modern environment causes these companies to allocate all their resources to short term survival.

From the above, it would appear that respondent firms lack the ability to formulate a long term plan which is seen as an essential part of a marketing orientated philosophy.

The second stage in this area of investigation was related to the marketing objectives adopted by firms to increase competitiveness.

Respondents were asked to identify the marketing objectives of their companies. They were requested to tick all objectives which apply and rank them in order of importance. Table 7.11 shows the results obtained from respondents.

Table 7.11: Prime objectives of the marketing activities in both UK and Export markets*

Objectives	Domestic market		Export market	
	Points	Ranking	Points	Ranking
1.To earn a satisfactory rate of profit	96	1	103	1
2.To gain the highest possible market share	75	2	69	2
3.To sell as much as possible	59	3	60	4
4.To earn the maximum long-term profit	52	4	66	3
5.To earn the maximum short-term profit	44	5	39	5

* Ranking is given according to the following:
The first objective was given five points, the second four points and so on.

It is evident from Table 7.11 that "to earn a satisfactory rate of profit" ranked first as a marketing objective to be achieved in both domestic and export markets. On the other hand earning the maximum long run profits as objective coincide with the marketing concept was reported as prime objective by few number of surveyed companies.

The aim of the final investigation into marketing objectives was to find out how these objectives were made known to the managers responsible for their achievement. The majority of firms claimed that having company policy meetings was the main method through which objectives were made known to them. 28 (90.3%) out of 31 mentioned this method and the method of formal written statement was mentioned by 3 (9.7%). A result which might reflect an absence of written marketing plans and objectives which in turn affects the commitment and execution of these plans.

As far as marketing planning is concerned, managers were asked to evaluate various types of marketing information in terms of perceived usefulness of each on a five point scale where a value of '1' was equal to "extremely important" and a value of '5' had the meaning of "not important at all". The answers received are ranked according to the mean value and are presented in Table 7.12. The lower the mean the more important the factor was considered by respondents in formulating their marketing plan.

From the table it can be observed that respondents considered the first six items as important in formulating their plans. The findings also show that the remaining two factors are considered of less importance.

Further analysis indicated slight differences between large and small firms regarding the relative importance of these dimensions.

Table 7.12: Importance of Factors when making Marketing Plans

Factors	Extremely important			Not important at all		Total	Mean
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Total market size	14 (48.3)	9 (31.0)	4 (13.8)	-	2 (6.9)	29 (100)	1.862
	** 23 (79.3)			** 2 (6.9)			
2.The competition	13 (43.3)	10 (33.3)	5 (16.7)	2 (6.7)	-	30 (100)	1.867
	23 (76.7)			2 (6.7)			
3.Company market share	9 (31.0)	9 (31.0)	8 (27.6)	2 (6.9)	1 (3.4)	29 (100)	2.207
	18 (62.1)			3 (10.3)			
4.Market growth rate	6 (21.4)	10 (35.7)	6 (21.4)	5 (17.9)	1 (3.6)	28 (100)	2.464
	16 (57.1)			6 (21.4)			
5.The degree of product differentiation	3 (11.5)	6 (23.1)	15 (57.7)	1 (3.8)	1 (3.8)	26 (100)	2.654
	9 (34.6)			2 (7.7)			
6.Contribution margins	2 (7.7)	8 (30.8)	12 (46.2)	3 (11.5)	1 (3.8)	26 (100)	2.731
	10 (38.5)			4 (15.3)			
7.Capacity utilisation	2 (7.4)	7 (25.9)	10 (37.0)	4 (14.8)	4 (14.8)	27 (100)	3.037
	9 (33.3)			8 (29.7)			
8.Scale and experience curve effects	2 (8.3)	5 (20.8)	7 (29.2)	7 (29.2)	3 (12.5)	24 (100)	3.167
	7 (29.2)			10 (41.6)			

* Number of valid observations.

** Total positive or negative side of the scale.

2. Market segmentation

Respondents were asked to indicate whether or not they carried out market segmentation before producing and selling their machines. The findings for this question are contained in Table 7.13 which illustrates that the majority of respondents have used market segmentation. However, it was obvious that the remaining firms which do not have a segmentation policy are small firms that might produce a single product for which a segmentation policy may be irrelevant in the sense that they are operating in a market niche.

Table 7.13: Market segmentation in the Companies studied

Use of Market Segmentation	N*	%
Small		
Market segmentation used	17	63.0
Market segmentation not used	10	37.0
TOTAL	27	100.0
Large		
Market segmentation used	3	100.0
Market segmentation not used	-	-
TOTAL	3	100.0

* Grand Total = 30

Firms who reported carrying out market segmentation were asked to identify what bases for segmenting market have been adopted. Four bases were suggested by the questionnaire and the opportunity to add any others was given.

Table 7.14 shows a breakdown of the answers received ranked in order according to the frequency of mention. As it appears from the table, type of application and geographic region were the most appropriate criteria to use in market segmentation followed by purchasing characteristics and customer size.

Table 7.14: Method of Segmentation

Bases for segmentation	N*	%
1. Type of application	16	80.0
2. Geographic region	16	80.0
3. Purchasing characteristics	4	20.0
4. Customer size	3	15.0

* Base = 20 = 100%

To sum up, marketing segmentation is applied by the majority of companies as a competitive marketing tool and in this case they were in agreement with the marketing concept on the essentiality of this function.

3. Market Research

Respondents were asked to indicate whether or not they were undertaking market research. The results are contained in Table 7.15.

Table 7.15: Market research in the Companies studied

Use of Marketing Research	N*	%
Small		
Marketing research used	15	53.6
Marketing research not used	13	46.4
TOTAL	28	100.0
Large		
Marketing research used	2	66.7
Marketing research not used	1	33.3
TOTAL	3	100.0

* Grand Total = 31

The above table shows that only 17 firms of the sample studied reported using market research including two of the large firms.

With regard to expenditure on marketing research, 12 companies of those who reported using market research spent less than £10,000. Differences among large and small firms in this respect do not exist. Big companies, like the small ones, are poor concerning expenditure on marketing research. It is, however, perhaps surprising that one of the three large companies in the sample spent nothing on market research.

However, the use of specific research technique varies widely. High use of internal company facilities by all firms which reported doing market research. The frequent use of external research was much lower than that of internal research. The reasons behind these trends among firms may be due to cost. In house research is generally much cheaper than commissioning an agency.

In following the above analysis companies engaging in the market research activities were asked to give their opinion of the relative importance of a list of marketing research functions using a five point scale, ranking from "extremely important" to "not important at all". The answers received are ranked according to the mean value and presented in Table 7.16. The lower the mean the more important the factor was considered by respondents.

As the table indicates respondents considered "defining the market" as the most important marketing research function. Other high importance factors include appraising competitors' activities, price/profit analysis, product testing, and establishing and monitoring business trends. Product concept testing consumers' preferences, motivation research, product and brand image tests, structure and organisation of channels of distribution and promotional mix research were of much lower importance.

Table 7.16: Importance of various marketing research functions

Functions	Extremely important 1 N (%)	2 N (%)	3 N (%)	Not important at all 4 N (%)	5 N (%)	Total N* (%)	Mean
1.Defining the market	12 (70.6)	3 (17.6) 15 (88.2)	-	-	2 (11.8) 2 (11.8)	17 (100)	1.647
2.Appraising competitors' activities	5 (29.4)	8 (47.1) 13 (76.5)	4 (23.5)	-	-	17 (100)	1.941
3.Price/profit analysis	6 (37.5)	6 (37.5) 12 (75.0)	2 (12.5)	2 (12.5)	- 2 (12.5)	16 (100)	2.000
4.Product testing	7 (41.2)	2 (11.8) 9 (52.9)	2 (11.8)	5 (29.4)	1 (5.9) 6 (35.3)	17 (100)	2.471
5.Establishing and monitoring business trends	4 (23.5)	6 (35.3) 10 (58.8)	3 (17.6)	2 (11.8)	2 (11.8) 4 (23.5)	17 (100)	2.529
6.Product concept testing	3 (17.6)	3 (17.6) 6 (35.3)	3 (17.6)	4 (23.5)	4 (23.5) 8 (47.1)	17 (100)	3.176
7.Consumer preferency motivation research	1 (5.9)	6 (35.3) 7 (41.2)	4 (23.5)	1 (5.9)	5 (29.4) 6 (35.3)	17 (100)	3.176
8.Product and brand image tests	-	3 (17.6) 3 (17.6)	6 (35.3)	4 (23.5)	4 (23.5) 8 (47.1)	17 (100)	3.529
9.Structure and organisation of channels of distribution	1 (6.3)	3 (18.8) 4 (25.0)	4 (25.0)	1 (6.3)	7 (43.8) 8 (50.0)	16 (100)	3.625
10.Promotional mix research	-	1 (6.3) 1 (6.3)	3 (18.8)	3 (18.8)	9 (56.3) 12 (75.0)	16 (100)	4.250

* Number of valid observations.

In addition to the above, respondents who did not undertake any marketing research were asked to specify the main reasons for not doing this using a six point scale ranging from "totally agree" to "totally disagree". Seven reasons were suggested by the questionnaire and the respondents were also requested to add any others that they thought were important. The answers received are presented in Table 7.17.

As can be seen from Table 7.17 the major reason for not doing market research was lack of necessary research facilities. This may include problems such as lack of skilled manpower, lack of proper marketing data which inhibits the ability to determine the size, structure and growth of the market potential, secondary data regarding type of customers and the economic and social environment.

Other reasons for not doing market research were: time constraints, companies from their experience know all they need to know about the market, and cost.

However, the fact that seven companies agree that market research is not useful for their business gives rise to concern and indicates either a lack of marketing orientation or knowledge of the important role of this function.

To sum up, while some firms were very sophisticated and successful in doing market research there was considerable scope for improving the performance of this function, where a large number (14) of all companies studied reported that they did not carry out any market research at all.

4. Product Policy

The extent to which a firm can adapt its product to meet customer requirements is central to international competitiveness. For textile machinery firms, therefore, it was considered vital to

Table 7.17: Reasons for not doing market research

	Agree			Disagree			
	Totally	Quite	Little	Little	Quite	Totally	Total
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)
1.Cost	3 (23.1)	2 (15.4)	2 (15.4)	1 (7.7)	2 (15.4)	3 (23.1)	13 (100)
	7 (53.8)			6 (46.2)			
2.From our experience we know all we need to know	1 (7.1)	5 (35.7)	2 (14.3)	1 (7.1)	1 (7.1)	4 (28.6)	14 (100)
	8 (57.1)			6 (42.9)			
3.Lack of necessary research facilities	2 (15.4)	5 (38.5)	4 (30.8)	-	-	2 (15.4)	13 (100)
	11 (84.6)			2 (15.4)			
4.Management opposition to marketing research	-	1 (7.7)	2 (15.4)	1 (7.7)	4 (30.8)	5 (38.5)	13 (100)
	3 (23.1)			10 (76.9)			
5.Time constraints	1 (7.7)	5 (38.5)	4 (30.8)	1 (7.7)	-	2 (15.4)	13 (100)
	10 (76.9)			3 (23.1)			
6.Not seen as very useful	-	5 (35.7)	2 (14.3)	2 (14.3)	2 (14.3)	3 (21.4)	14 (100)
	7 (50.0)			7 (50.0)			
7.Need for secrecy	-	-	3 (23.1)	1 (7.7)	3 (23.1)	6 (46.2)	13 (100)
	3 (23.1)			10 (76.9)			

* Number of valid observations.

examine the extent to which their product policy developed to meet the customer needs and the following aspects will be examined:

- Product modification
- Factors influencing the introduction of new product
- Reasons for product success or failure
- Major barriers to innovation
- Product uniqueness.

Product Modification

Respondents were asked how often they modify or change their machines. The study findings indicated that 26 out of 31 firms made such modifications within a period ranging from 1 to 5 years. Reviewing the respondents' answers indicated that the firms follow this policy for the following reasons:

1. To improve the quality of the machine;
2. Increased input versatility;
3. Increased output versatility as to colour, type of fabric, size of fabric;
4. Increased safety in operation;
5. Attention to operators' personal requirements.

Formal Product Policy and Factors influencing the Introduction of New Machines

Respondents were also requested to indicate whether or not they have a formal (i.e written down and published) policy towards the development of new machines. The results are reported in Table 7.18. From this table it can be seen that the majority of firms studied did not have a formal policy towards innovation. Once again this result reflects a lack of commitment to product planning which is seen as an essential part of any competitive marketing strategy.

In order to shed more light on this area of investigation respondents were requested to indicate the major factors which

Table 7.18: Existence of formal policy towards the development of new products

Does the firm have a formal policy towards the development of new products?	N*	%
Small		
Yes	12	42.9
No	16	57.1
TOTAL	28	100.0
Large		
Yes	-	-
No	3	100
TOTAL	3	100

* Grand Total = 31

influence their company's decisions to introduce new machines. These are presented in Table 7.19 in order of importance.

As it appears from the table "in response to a customer's direct request" is the major factor influencing the introduction of new machines and this may reflect a lack of marketing orientation, whereas the stance of many firms towards innovation appears to be reactive, rather than positive: they develop machinery on the basis of feedback from the customers, rather than as a result of their own forward-looking development and marketing plans.

Test Marketing and the Criteria used to test New Machines

Respondents were also asked to indicate whether or not their companies carry out marketing tests of new machines before selling them nationally. The findings are presented in Table 7.20. From this table it can be seen that twenty firms of the sample studied reported using test marketing.

Table 7.19: Factors influencing new "machine" introduction

Factors	Points*	Rank
1. In response to a customer's direct request	156	1
2. To achieve competitive position	112	2
3. To take advantage of a new technological capability	107	3
4. In response to competitors' actions	88	4
5. General research for improved efficiency	73	5
6. Erosion of market for existing products	61	6

* Ranking is given according to the following: The first factor was given six points, the second five points and so on.

Table 7.20: Test Marketing in the Companies studied

Use of Test Marketing	N*	%
Small		
Test marketing used	17	60.7
Test marketing not used	11	39.3
TOTAL	28	100.0
Large		
Test marketing used	3	100
Test marketing not used	-	-
TOTAL	3	100

* Grand Total = 31

Companies which reported using test marketing were asked to specify the criteria they used in such tests on a five point scale ranging from "to a great extent" to "very little". The answers received are ranked according to the mean value and presented in Table 7.21.

From this table it can be observed that respondents used the first seven factors to a great extent in their test marketing while the last factor was used very little.

In general this information reflects a further step towards the implementation of the marketing concept regarding test marketing.

Reasons for Product Success or Failure

This part of the work is concerned with the assessment of the most important factors which might contribute to the success or the failure of new machines in the textile machinery industry.

Respondents were asked to evaluate a list of factors suggested by the questionnaire and add any other factors that they thought were important in influencing new product success or failure on a five point scale, where a value of 1 was equal to "extremely important" and a value of 5 had the meaning of "not important at all". The results received are ranked according to the mean value and presented in Tables 7.22 and 7.23.

To begin with factors leading to success. As can be seen from Table 7.22 great importance is placed on superior product, good after-sales service, effective promotion, adequate sales force and good stock availability as the main factors for success by a considerable number of respondent firms. Lower price relative to competition, lack of effective competition, adequate market analysis and wide distribution were rated as factors of lesser importance in contributing to successful product launches in the last ten years.

Table 7.21: Extent of using various criteria to test new machinery

Criteria used in testing new machines	To a great extent			Very Little		Total	Mean**
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Technological advantage of the new technique compared to other techniques or technologies of the same firm and other firms.	14 (73.7)	2 (10.5)	2 (10.5)	1 (5.3)	-	19 (100)	1.474
	16 (84.2)			1 (5.3)			
2.Relation of price to performance.	9 (45.0)	7 (35.0)	2 (10.0)	1 (5.0)	1 (5.0)	20 (100)	1.900
	16 (80.0)			2 (10.0)			
3.Machine handling as far as time and ease of operation is concerned.	6 (30.0)	11 (55.0)	2 (10.0)	-	1 (5.0)	20 (100)	1.950
	17 (85.0)			1 (5.0)			
4.Range of application.	5 (27.8)	7 (38.9)	5 (27.8)	-	1 (5.6)	18 (100)	2.167
	12 (66.7)			1 (5.6)			
5.After-sales services.	6 (31.6)	7 (36.8)	4 (21.1)	-	2 (10.5)	19 (100)	2.211
	13 (68.4)			2 (10.5)			
6.Maintenance requirements.	4 (21.1)	7 (36.8)	7 (36.8)	1 (5.3)	-	19 (100)	2.263
	11 (57.9)			1 (5.3)			
7.Repair needs and use of spare parts.	1 (5.3)	7 (36.8)	8 (42.1)	2 (10.5)	1 (5.3)	19 (100)	2.737
	8 (42.1)			3 (15.8)			
8.Energy requirements	6 (31.6)	2 (10.5)	2 (10.5)	3 (15.8)	6 (31.6)	19 (100)	3.053
	8 (42.1)			9 (47.4)			

* Number of valid observations.

** The lower the mean the more important the factor was considered by respondents in test marketing.

Table 7.22: Factors leading to successful product launch in the last ten years

Factors	Extremely important			Not important at all		Total	Mean**
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Superior product	20 (71.4)	5 (17.9)	2 (7.1)	1 (3.6)	-	28 (100)	1.429
	25 (89.3)			1 (3.6)			
2.Good after-sales service	9 (33.3)	14 (51.9)	1 (3.7)	-	3 (11.1)	27 (100)	2.037
	23 (85.2)			3 (11.1)			
3.Effective promotion	6 (23.1)	12 (46.2)	4 (15.4)	2 (7.7)	2 (7.7)	26 (100)	2.308
	18 (69.2)			4 (15.4)			
4.Adequate salesforce	3 (11.1)	12 (44.4)	6 (22.2)	3 (11.1)	3 (11.1)	27 (100)	2.667
	15 (55.6)			6 (22.2)			
5.Good stock availability	3 (11.1)	8 (29.6)	8 (29.6)	5 (18.5)	3 (11.1)	27 (100)	2.889
	11 (40.7)			8 (29.6)			
6.Low price relative to competition	4 (13.8)	4 (13.8)	11 (37.9)	6 (20.7)	4 (13.8)	29 (100)	3.069
	8 (27.6)			10 (34.5)			
7.Lack of effective competition	6 (24.0)	2 (8.0)	6 (24.0)	5 (20.0)	6 (24.0)	25 (100)	3.120
	8 (32.0)			11 (44.0)			
8.Adequate market analysis	3 (10.7)	3 (10.7)	10 (35.7)	7 (25.0)	5 (17.9)	28 (100)	3.286
	6 (21.4)			12 (42.9)			
9.Wide distribution	1 (3.6)	4 (14.3)	7 (25.0)	11 (39.3)	5 (17.9)	28 (100)	3.536
	5 (17.9)			16 (57.1)			

* Number of valid observations.

** The lower the mean the more important the factor was considered by respondents for successful product.

Table 7.23: Factors leading to unsuccessful product launches in the last ten years

Factors	Extremely important			Not important at all		Total	Mean**
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Product defects	14 (58.3)	3 (12.5)	2 (8.3)	2 (8.3)	3 (12.5)	24 (100)	2.042
	17 (70.8)			5 (20.8)			
2.High price relative to competition	5 (20.8)	8 (33.3)	6 (79.2)	3 (12.5)	2 (8.3)	24 (100)	2.542
	13 (54.2)			5 (20.8)			
3.Inadequate market analysis	3 (12.5)	5 (20.8)	11 (45.8)	-	5 (20.8)	24 (100)	2.958
	8 (33.3)			5 (20.8)			
4.Poor timing	2 (8.7)	7 (30.7)	5 (21.7)	3 (13.0)	6 (26.1)	23 (100)	3.174
	9 (39.1)			9 (39.1)			
5.Ineffective promotion	3 (13.0)	4 (17.4)	7 (30.4)	4 (17.4)	5 (21.7)	23 (100)	3.174
	7 (30.4)			9 (39.1)			
6.Competitive reaction	1 (4.3)	6 (26.1)	6 (26.1)	5 (21.7)	5 (21.7)	23 (100)	3.304
	7 (30.4)			10 (43.5)			
7.Inadequate salesforce	3 (13.0)	3 (13.0)	4 (17.4)	7 (30.4)	6 (26.1)	23 (100)	3.435
	6 (26.1)			13 (56.5)			
8.Inadequate distribution	1 (4.5)	2 (9.1)	5 (22.7)	7 (31.8)	7 (31.8)	22 (100)	3.773
	3 (13.6)			14 (63.6)			

* Number of valid observations.

** The lower the mean the more important the factor was considered by respondents as leading to unsuccessful product.

Turning to the case of unsuccessful products, it can be observed from Table 7.23 that the majority of respondents considered the first three factors as important reasons behind the failure of new products, while the remaining factors listed in the table were considered of less importance.

Although the conclusion from the above data are self-evident the following remarks may still be appropriate.

1. By far the most important single factor contributing to success or failure was the product itself, both its performance and its design. Building a sound machine can help to achieve competitive success in the market place.

2. Pricing relative to competition assumed a more important role in explaining failure than in explaining success. This attitude may give support to our earlier argument in the literature review that, providing the customer with the right quality and the right service is not sufficient in itself for success, price must also be competitive. Setting a price too high can lead to the failure of the product in the market.

Broadly the findings of this study strengthen the findings reached by Hooley[1] et al who found that product quality was the most important factor in explaining success and failure. They also found that pricing relative to competition is of more importance in explaining failure than in explaining success.

However the differences between our study and theirs is that wide distribution was considered particularly important in their study.

Major Barriers to Innovation

There are many factors which may hinder the ability of the firm to innovate. These factors are likely to vary between one industry and others certainly in order of importance. This part

of the work was devoted to discover those factors that textile machinery firms perceive as obstruction to innovation. Eight factors were suggested by the questionnaire and respondents were also requested to add any other factors they thought were important and evaluate all of them using a five point scale ranking from "To a great extent" to "Very little". The answers received were ranked according to the mean value and are presented in Table 7.24. The lower the mean the more important the factor was considered by respondents as barriers to innovation.

From the table it can be seen that respondent firms regarded the first four factors as constraints on innovation to a great extent, while the effect of the other four factors is very little.

In view of the above it is evident that economic circumstances and condition of market uncertainty acted as a major barrier to innovation, which in turn put a great responsibility on the management to deal with such uncertainty. In other words the key to machinery innovation lies ultimately in the quality of manager, i.e in the ability of managers to be not only a creative force themselves, but also to ensure that conditions within the firm positively encourage creative work at all levels.

Another problem which faces UK firms and acted as a constraint on innovation, especially for the smaller firms which comprise the bulk of the industry, is lack of capital investment. This result was expected, since few small firms possess the financial resources to enable them to undertake risky innovation endeavours, when failure to successfully produce a new machine can mean the failure of the whole firm.

Finally, lack of qualified R & D manpower emerged as a major barrier to innovation and this may be the result of poor training.

Table 7.24: Major Barriers to Innovation

Barriers	To a great extent				Very little	Total	Mean
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.External economic circumstances (trade cycle general recession)	8 (27.6)	15 (51.7)	2 (6.9)	2 (6.9)	2 (6.9)	29 (100)	2.138
	23 (79.3)			4 (13.8)			
2.Conditions of market uncertainty	5 (16.7)	13 (43.3)	5 (16.7)	3 (10.0)	4 (13.3)	30 (100)	2.600
	18 (60.0)			7 (23.3)			
3.Lack of capital investment	11 (35.5)	8 (25.8)	1 (3.2)	3 (9.7)	8 (25.8)	31 (100)	2.645
	19 (61.3)			11 (35.5)			
4.Lack of qualified R & D manpower	7 (22.6)	7 (22.6)	8 (25.8)	5 (16.1)	4 (12.9)	31 (100)	2.742
	14 (45.2)			9 (29.0)			
5.User management's decisions and policies	2 (6.7)	6 (20.0)	10 (33.3)	5 (16.7)	7 (23.3)	30 (100)	3.300
	8 (26.7)			12 (40.0)			
6.User operatives resistance to change	3 (10.0)	4 (13.3)	9 (30.0)	6 (20.0)	8 (26.7)	30 (100)	3.400
	7 (23.3)			14 (46.7)			
7.Own management conservatism	2 (6.9)	5 (17.2)	7 (24.1)	3 (10.3)	12 (41.4)	29 (100)	3.621
	7 (24.1)			15 (51.7)			
8.User unions resistance to change	-	2 (6.9)	6 (20.7)	6 (20.7)	15 (51.7)	29 (100)	4.172
	2 (6.9)			21 (72.4)			

* Number of valid observations.

Product Uniqueness

As pointed out in Chapter 2 and 4 in this thesis, the stage of a product in the product life cycle in both UK and export markets and the competitive advantages associated with this position are considered vital to international competitiveness. Therefore it was considered important to examine to what extent respondent firms have a unique product which may give them a competitive position in the world of textile machinery.

Table 7.25 demonstrates that only 12.9 per cent of respondent firms have a unique product, while the majority of them produce products which are "To some extent unique" or "Standard". As the previous findings regarding barriers to innovation suggested, this may be due to the lack of skilled technical staff to redesign unique machines or lack of investment and management attitudes to innovation.

Table 7.25: Extent of Product Uniqueness

Degree of Uniqueness	N*	%
1. Unique: No comparable product exists	4	12.9
2. To some extent unique: Some characteristics are difficult to match with competitors' products	21	67.7
3. Standard: Could be exchanged for main competitor's products	6	19.4

* Base = 31 = 100%

Finally, does the degree of product uniqueness vary in relation to the size of the firm? The respondents' answers to this question revealed slight differences, where the four firms which reported they have a unique product are small.

5. Services

Respondents were asked to indicate whether or not they provide their customers with any kind of service. The results are reported in Table 7.26.

Table 7.26: Providing Marketing Services

Does your company provide its customers with any kind of service?	N*	%
Small		
Yes	25	89.3
No	3	10.7
TOTAL	28	100.0
Large		
Yes	3	100
No	-	-
TOTAL	3	100

* Grand Total = 31

As can be seen from Table 7.26 the great majority of respondent firms provide their customers with different kinds of marketing services.

In order to shed more light on this conviction respondents were asked to indicate how frequently each of these services is offered to their customers.

The following scale was used in this question.

Never	Almost Never	Sometimes	Often	Frequently
1	2	3	4	5

The findings of this question indicated that delivery of spares, technical assistance related to machine operations, machine guaranteed against manufacturing defects during a period of six months, machine installation, repair service, machines are guaranteed against manufacturing defects during a period of one year, maintenance service, assistance for layout and training of operators were the most frequent services offered by firms. The machines are guaranteed against manufacturing defects during a period of more than one year was less frequently mentioned.

Overall the majority of companies surveyed showed evidence of the application of the marketing concept regarding the services they offered to their customers.

6. Pricing

A major marketing mix variable is price. Given the nature of the product in terms of design, quality, uniqueness, etc, the price which the customer ultimately pays is crucial to competitive success. This critical importance of pricing policy led the researcher to explore its main aspects in the firms surveyed. The investigation included the firms' pricing objectives, major methods of pricing and prices compared to competitors.

Pricing objectives

In most cases, no marketing function can be performed successfully without an aim, and pricing is no exception. The management of British textile machinery firms should set its pricing objectives before determining the price itself.

Respondents were requested to rank in order of importance the pricing objectives of their companies in both domestic and export market. Seven objectives were addressed to respondents and the opportunity was given to add any others which were not included. The answers received are indicated in Table 7.27.

Table 7.27: Most important Pricing Objectives in both UK and Export Market*

Pricing objectives	Domestic market		Export market	
	Points	Rank	Points	Rank
1. Growth	151	1	141	2
2. Maximum long run profits	147	2	160	1
3. Enhance image of firm and its offering	72	3	81	3
4. Maximum short run profits	46	4	57	4
5. Stabilise market	37	5	31	6
6. Discourage entrants	33	6	27	7
7. Maintain price leadership	31	7	39	5

* Ranking is given according to the following: The first objective was given seven points, the second six and so on.

It can be seen from the above table that profit maximisation in the long run and market growth were placed first or second by the majority of companies both in the UK and export market. A finding which reflects that many firms in the sample are flexible in setting their pricing objectives and adaptable to the need of the market.

Pricing Methods

To obtain information regarding the basis upon which the sample firms set their prices, respondents were asked to indicate the major methods employed in setting the price of their products in domestic and export markets. Three methods were suggested by the questionnaire to respondents who were also invited to add any others that were not found in the question. The results appear in Table 7.28.

Table 7.28: Methods of Pricing in both UK and Export Markets

Pricing Bases	Domestic market *		Export market **	
	N	% ***	N	%
1. Adding a percentage to full cost	18	58.1	13	43.3
2. Pricing according to the market	16	51.6	17	56.7
3. Pricing according to competitive level	13	41.9	18	60.0

* In domestic market, base = 31 = 100%
** In export market, base = 30 = 100%
*** Total more than 100% because many companies reported using a combination of methods.

Three main observations emerge regarding pricing methods from Table 7.28:

1. Full cost pricing is still used by a considerable number of firms with firms in the domestic market tending to put more emphasis on full cost plus more than in export market.

2. The findings of the study reveal to a large extent equal market orientation in price setting in both domestic and export markets.

3. Most companies in export markets base their price decisions on "competitor's price" or "according to the market". However, in the domestic market less emphasis was placed on "competitor's price" as an influencing factor in pricing.

Price Compared with Competitors

Firms were asked to compare their prices with those of their principal competitors in domestic and export markets. The answers to this question are detailed in Table 7.29.

Table 7.29: Firms' Prices compared with those of their Competitors

Degree	Domestic market		Export market	
	N	%	N	%
1. Generally higher	12	38.7	14	45.2
2. Lower than average	5	16.1	3	9.7
3. About average	14	45.2	14	45.2
TOTAL	31	100	31	100

From this table it is evident that prices of respondent firms were equal to or more expensive compared with those of their principal foreign competitors. In particular, a larger proportion of the respondents stated that their prices were more expensive when they export their products to foreign markets.

7. Promotion

In Chapter 3 of this thesis an examination of the relevant literature indicated that promotion was regarded as an essential factor for achieving competitive success in both domestic and export markets.

Because of this it was decided to explore the main aspects of promotion in the firms studied. The investigation includes use of promotional activities, method of promotion, promotion expenditure and finally methods of allocation of advertising budgets.

Use of Promotion

Respondents were asked to indicate whether or not they undertake any promotional activities. The answers received are indicated in Table 7.30 below:

Table 7.30: Carrying out Promotional Activities*

Use of Promotional activities	N*	%
Small		
1. Promotional activities used	28	100
2. Promotional activities not used	-	-
TOTAL	28	100
Large		
1. Promotional activities used	2	66.7
2. Promotional activities not used	1	33.3
TOTAL	3	100

* Grand Total = 31

The above table demonstrates that with the exception of one large firm, all the sample use promotional activities indicating some degree of marketing orientation.

Respondents who reported using promotional activities were asked to identify the major promotional activities they used and rank them in order of importance. The answers are illustrated in Table 7.31.

Table 7.31 indicates that trade fairs and exhibitions, advertisements in trade journals and catalogues and brochures are the main promotional methods used by surveyed companies. This result is consistent with the traditional emphasis on these methods in industrial selling.

Table 7.31: Most Important Promotional Activities*

Promotional activities	Points	Rank
1. Trade fairs and exhibitions	115	1
2. Advertisements in trade journals	105	2
3. Catalogues and brochures	93	3
4. Direct mail	33	4
5. Point of sale	24	5

* Ranking is given according to the following: The first method was given five points, the second four and so on.

The above findings concerning trade fairs and exhibitions lend support to the NEDO study(2), "The anatomy of purchasing clothing machinery" where buyers were asked to rate the importance of sources of information as a machinery manufacturer. The results indicated that the majority of clothing manufacturers seem to attach great importance to exhibitions.

Expenditure on Advertising and Promotion

With regard to expenditure on advertising and promotion, 83.5 per cent of companies who reported carrying out promotional activities spent less than £25,000 per annum.

Methods for Setting Advertising Budgets

Respondents were also asked "on what basis does your company determine the amount to be spent on promotion? (Please tick the appropriate box)". Their answers are reported in Table 7.32.

As the table shows over half of advertising firms used arbitrary methods, i.e spend what you can afford. The second most widely used is objective and task approach with 30 per cent of respondent firms which advertised. A fixed percentage of sales, what competitors do, historical expenditure were little used.

Table 7.32: Methods of Setting Advertising and Promotion Budgets

Methods	N	%
1. What you can afford	17	56.7
2. Objective and task method	9	30.0
3. A fixed percentage of sales	2	6.7
4. What competitors do	1	3.3
5. Historical expenditure	1	3.3
6. A fixed percentage of profit	-	-
TOTAL	30	100

In view of the above the majority of companies determine the amount to be spent on promotion by methods far away from the application of the marketing concept.

8. Personal Selling

Competitive success can accrue through high quality selling, when all other things are equal the customer buys from firms and from salesmen they like.

Accordingly we will examine the following aspects of personal selling:

1. Sales personnel selection
2. Training and motivation

1. Sales Personnel Selection

Respondents were asked to give their opinion on lists of characteristics by which they evaluate sales personnel on a five point scale where a value of '1' was equal to "Extremely important" and value of '5' had the meaning of "Not important at all". The answers received are ranked according to the mean value and presented in Table 7.33. From this table one can notice the following:

Table 7.33: Importance of factors in Sales Personnel Selection

Factors	Extremely important			Not important at all		Total	Mean**
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Dependability	20 (71.4)	6 (21.4)	1 (3.6)	1 (3.6)	-	28 (100)	1.393
	26 (92.6)			1 (3.6)			
2.Management competence	13 (43.3)	8 (26.7)	8 (26.7)	-	1 (3.3)	30 (100)	1.933
	21 (70.0)			1 (3.3)			
3.A high level of energy	12 (40.0)	10 (33.3)	6 (20.0)	2 (6.7)	-	30 (100)	1.933
	22 (73.3)			2 (6.7)			
4.A natural tendency to be competitive	9 (31.0)	12 (41.4)	5 (17.2)	3 (10.3)	-	29 (100)	2.069
	21 (72.4)			3 (10.3)			
5.Abounding self-confidence	7 (24.1)	6 (20.7)	13 (44.8)	3 (10.3)	-	29 (100)	2.414
	13 (44.8)			3 (10.3)			
6.Linguistic ability	4 (14.3)	6 (21.4)	12 (42.9)	3 (10.7)	3 (10.7)	28 (100)	2.821
	10 (35.7)			6 (21.4)			
7.Research competence	3 (10.7)	6 (21.4)	11 (39.3)	4 (14.3)	4 (14.3)	28 (100)	3.000
	9 (32.1)			8 (28.6)			

* Number of valid observation.

** The lower the mean the more important the factor was considered by respondents in sales personnel selection.

i. The majority of respondents reported the importance of all the criteria suggested in sales personnel selection.

ii. In looking at the relative importance attached to each factor it became apparent that the most important factors are dependability, management competence, a high level of energy and natural tendency to be competitive.

2. Training and motivation

Respondents were asked to indicate whether or not they give their sales force any form of training. The results showed that 25 (80.6%) firms reported using internal training for their sales force. Among these nine reported using external training.

In this respect, it is interesting to notice that respondent firms tended to give more attention to sales force training if it compared with the degree of training given to the marketing staff in general. Once again this may reflect the importance of this function for competitive success.

As one marketing manager puts it "particularly today, textile machinery salesmen have to be technically trained to effectively represent a sound textile machinery company".

As far as the sales force is concerned respondents were asked to indicate the major methods employed by them to motivate salesmen. The answers received are ranked in order according to the frequency of mention and presented in Table 7.34.

As the table indicates 55.2 percent of respondents motivate their sales force through salary which may give the salesmen security and permits the manager a degree of control over the salesmen's activities, as does a salary and commission approach used by a further 24% of the respondents. Such control is much more difficult to exercise over salesmen on commission only.

Table 7.34: Major methods employed by firms to motivate salesmen

Methods of Motivation	N	%
1. Salary	16	55.2
2. Salary and commission	7	24.1
3. Commission	4	13.8
4. Bonuses and special incentives	1	3.4
5. Others	1	3.4
TOTAL	29	100

7. Distribution policy

The method by which firms sell their machines is an aspect of competitive marketing strategy. In this sub-section the aim is to explore two important issues. Firstly type of channel of distribution used by textile machinery firms both in the UK and export markets. Secondly, factors considered by firms in their channel selection.

Channel of Distribution used

Respondents were asked in which way their products reach their customer in the UK and three alternatives were suggested by the questionnaire to the respondents who were also requested to add any others not included in the question, and to tick all alternatives that apply. The answers received are ranked in order according to the frequency of mention and presented in Table 7.35 below.

The results clearly indicate that direct selling to industrial users is the most widely used channel (80.6%). This result revealed the nature of competition in the UK market and the competitive environment of the textile machinery industry, where there is a tendency to sell directly to the industrial user to exercise some kind of control over distribution and to get closer contact with the user of the machines.

Table 7.35: Channel of Distribution used by Firms studied

Type of the Channel	N	%
1. Direct to industrial consumer	25	80.6
2. Through distributors	2	6.5
3. Both of these	4	12.9
TOTAL	31	100

Respondents were also asked to give their opinion on the relative importance of various methods of distribution for selling their machines in export markets. Eight methods were addressed to respondents who were also asked to add other methods and evaluate all of them using a five point scale ranging from "extremely important" to "not important at all". The answers received are ranked according to the mean value and presented in Table 7.36. The lower the mean the more important the factor was considered by respondents as a method of selling their machines in export markets.

As can be seen from Table 7.36 respondents considered only the first two methods as important for selling their companies main product to export markets. As the table shows, the percentage of respondents who quoted these methods as important was higher than the percentage of those who ranked them as not important. The findings also show that the remaining methods considered of less importance to sales in export markets.

Agents and distributors were quoted as the most important method of distribution. This emphasis which has been placed on agents may be due to the advantages they offer as a market entry, in terms of gaining market experience and testing the potential market.

Table 7.36: Most important Methods of Distribution used in Export market

Methods	Extremely important			Not important at all		Total	Mean
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Through agents and distributors in overseas market.	18 (60.0)	8 (26.7)	2 (6.7)	-	2 (6.7)	30 (100)	1.667
	26 (86.7)			2 (6.7)			
2.Direct sales by company personnel to overseas customers.	17 (56.7)	4 (13.3)	2 (6.7)	3 (10.0)	4 (13.3)	30 (100)	2.100
	21 (70.0)			7 (23.3)			
3.Through foreign buyers in the UK and export houses	-	5 (18.5)	8 (29.6)	6 (22.2)	8 (29.6)	27 (100)	3.630
	5 (18.5)			14 (51.9)			
4.Through company's own marketing/ sales subsidiaries	3 (13.0)	4 (17.4)	2 (8.7)	3 (13.0)	11 (47.8)	23 (100)	3.652
	7 (30.4)			14 (60.8)			
5.A joint venture with another company	1 (4.3)	2 (8.7)	3 (13.0)	5 (21.7)	12 (52.3)	23 (100)	4.087
	3 (13.0)			17 (74.0)			
6.Licensing a foreign company to manufacture the product	1 (4.2)	1 (4.2)	2 (8.3)	2 (8.3)	18 (75.0)	24 (100)	4.458
	2 (8.3)			20 (83.3)			
7.Contract on manufacturing agreement	-	-	1 (4.5)	2 (9.1)	19 (86.4)	22 (100)	4.818
				21 (95.5)			
8.Management contracting agreement	-	-	1 (4.5)	2 (9.1)	19 (86.4)	22 (100)	4.818
				21 (95.5)			

* Number of valid observations.

Direct sales by company personnel to overseas customers was quoted as the second most important method of distribution which gives further support to Boan study cited in Chapter 5 when he found that big international suppliers in sewing machinery prefer to own their distribution network fully because, in this way they have a control over it.

Factors considered in channel selection

The final choice between the various alternative channels, existing or new, will depend on balance between various factors. In our study respondents were asked to rank in order of importance the criteria they considered when making their decision to use their existing channel of distribution. The results for this question indicated that by far the most important factor was widespread distribution of machines. Desire for control over the channel was second most important and stock facilities during off peak periods next. Fourth most important was competitors also use similar channels.

In general this result may reflect less awareness of the market orientation since the policy of the majority of companies studies is aiming to sell to all segments of the market rather than concentrate on specific targets.

10. Key Factors for competitive success

This part of the work was concerned with the assessment of the most important factors contributing to competitive success, arising out of earlier discussion in Chapter 3 of the differences between price and non-price competition in domestic and export markets.

Respondents were asked to evaluate these factors using a five point scale ranking from "Extremely important" to "Not important at all". This is to be completed firstly for selling to UK markets and secondly for selling to export markets. The answers received are ranked according to the mean value and presented in Tables 7.37 and 7.38.

Table 7.37: Relative importance of factors in gaining sales in Domestic Market

Factors	Extremely important			Not important at all		Total	Mean**
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Consistent quality and product performance	29 (93.5)	1 (3.2)	-	1 (3.2)	-	31 (100)	1.129
	30 (96.8)			1 (3.2)			
2.Meeting delivery dates	9 (29.0)	16 (51.6)	5 (16.1)	1 (3.2)	-	31 (100)	1.935
	25 (80.6)			1 (3.2)			
3.After sales service	11 (35.5)	12 (38.7)	4 (12.9)	1 (3.2)	3 (9.7)	31 (100)	2.129
	23 (74.2)			4 (12.9)			
4.Lower price than competitors	1 (3.2)	2 (6.5)	18 (58.1)	6 (19.4)	4 (12.9)	31 (100)	3.323
	3 (9.7)			10 (32.3)			
5.Promotion	1 (3.2)	5 (16.1)	9 (29.0)	8 (25.8)	8 (25.8)	31 (100)	3.548
	6 (19.4)			16 (51.6)			

* Number of valid observations.

** The lower the mean the more important the factor was considered by respondents in obtaining business in the UK market.

Table 7.38: Relative importance of factors in gaining sales in Export Market

Factors	Extremely important			Not important at all		Total	Mean**
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Consistent quality and product performance	28 (93.3)	1 (3.3)	-	1 (3.3)	-	30 (100)	1.133
	29 (96.7)			1 (3.3)			
2.Meeting delivery dates	17 (56.7)	9 (30.0)	3 (10.0)	1 (3.3)	-	30 (100)	1.600
	16 (86.7)			1 (3.3)			
3.After sales service	12 (40.0)	9 (30.0)	6 (20.0)	1 (3.3)	2 (6.7)	30 (100)	2.067
	21 (70.0)			3 (10.0)			
4.Lower price than competitors	2 (6.7)	9 (30.0)	11 (36.7)	5 (16.7)	3 (10.0)	30 (100)	2.933
	11 (36.7)			8 (26.7)			
5.Promotion	2 (6.7)	6 (20.0)	8 (26.7)	8 (26.7)	6 (20.0)	30 (100)	3.333
	8 (26.7)			14 (46.7)			

* Number of valid observations.

** The lower the mean the more important the factor was considered by respondents in obtaining sales in the export market.

To begin with factors contributing to sales in domestic markets. Table 7.37 shows that respondents considered consistent quality and product performance, meeting delivery dates, and after-sales service as important factors in gaining business in domestic markets. As the table indicates the percentage of respondents who quoted these factors as important was higher than the percentage of those who ranked them as not important. The findings also show that lower price than competitors and promotion are considered of less importance.

Turning to factors contributing to sales in export markets, Table 7.38 shows, by far the most important factors were product quality and meeting delivery dates. Other high important factors include after-sales service and lower price than competition. Promotion was considered of less importance in gaining business if it compared with the previous four factors.

The foregoing data may be fairly obvious, however the following observations may be still in order.

1. Non-price factors namely product quality, meeting delivery dates and after-sales service were regarded as more important than price in gaining sales in both UK and export markets.

2. Were there any significant differences between export and domestic markets in terms of the importance of these marketing factors in achieving competitive success? The results showed slight differences, where price was ranked as a more important factor in gaining sales in export markets and of less importance in the domestic market.

In sum these findings confirm the view that textile machinery firms should concentrate more competition on product quality and its extensions rather than on price.

However, this does not mean that price is not important because all the elements of the marketing mix work together and it is very difficult to determine the effect of any one factor in isolation.

As one managing director puts it "we never compete primarily on price, because we believe that providing the customer with the right quality and the right service is far more important, although of course price must always be competitive".

11. Competitor analysis

As was established in our literature review, the last few years have seen a dramatic change in the orientation of marketing. Strategic thinking has become essential for competitive success and more attention has been paid to the competitor. Indeed instead of looking only at meeting customer wants, the clear message of the marketing concept is know your competitor as well as your customer.

Accordingly the purpose of this sub-section is to investigate the extent to which British companies are aware of competition and their concern with customer needs. To achieve this purpose respondents were asked whether they consider their market to be competitive. The answers received are summarised in Table 7.39 from which one can notice that over half of the sample considered their market to be competitive. However, it was interesting to notice that the three large companies in our sample considered the market of textile machinery to be extremely competitive where a value of (1) was given in their answers.

When asked about the sources of competition 83.9 per cent of respondents, including the three large companies in the sample, mentioned foreign competition in both the UK and export markets. This trends support the view that competition in the textile machinery industry tends to be at the international level.

Table 7.39: Nature of competition in Textile Machinery

Nature of competition	N	%
1. Extremely competitive	9	30.0
2.	7	23.3
3. Average	12	40.0
4.	2	6.7
5. Not at all competitive	-	-
Number of valid responses	30	100

In addition to the above, respondents were asked to indicate whether or not they study their competitors' activities, the results indicated that only 16.1 per cent of respondent firms have a formal (i.e written down and published) system for evaluating the activities of their competitors. This result indicates that the majority of firms surveyed are out of line with the marketing concept where an important indication which illustrates whether or not an organisation is implementing the marketing concept is the extent to which the organisation devotes efforts to identifying competitor activities.

Companies (16%) engaging in identifying competitor activities were asked to specify what kind of activities were evaluated with regard to their major competitors. Ten factors were suggested by the questionnaire to the respondents who were also requested to add any others which were not included. The results received revealed that, technical specification, new product development and competitor price, were the major activities studied by respondents followed by company image. General strategy followed, marketing activities, promotional activity, service arrangements, breadth of competitors' range and sales organisation were considered less. The aim of the final investigation in this area was to find out the differences between UK performance and their competitors.

Respondents were asked to rate UK manufacturers against foreign manufacturers in the following areas, reliability, price, design, after sales service, sales force, image and reputation, advertising and sales promotion and finally distribution.

The answers received are ranked according to the mean value and presented in Table 7.40. The lower the mean the higher the rating given to British manufacturers against foreign competitors.

From Table 7.40 two facts emerged.

1. It is encouraging to note that British textile machinery manufacturers compare reasonably in the area of after sales service and reliability.

With regard to after sales service it is fair to say that British textile machinery manufacturers did well in this area, this appeared from the sample answers to the previous question which was concerned with this function, where we found that the majority of firms offered various kinds of services to their customers. Also as the findings will indicate in the next section respondent firms considered lack of superior after sales service on the part of British textile machinery firms of less importance as a reason behind the decline in competitiveness of the UK textile machinery in the world market.

2. British textile machinery manufacturers still lag behind foreign competitors in the area of distribution, sales force, design, competitive price, advertising and sales promotion, and reputation and finally reliable delivery.

In view of the above, respondent firms felt that UK manufacturers are not doing well in most dimensions of marketing when compared with foreign competitors.

Table 7.40: UK Performance compared with Foreign Competitors

	1	2	3	4	5		Total	Mean**
	N (%)	N (%)	N (%)	N (%)	N (%)		N* (%)	
1.Good after sales service	3 (10.3)	5 (17.2)	16 (55.2)	3 (10.3)	2 (6.9)	Poor after sales service	29 (100)	2.862
		8 (27.6)			5 (17.2)			
2.Very reliable	3 (10.3)	2 (6.7)	21 (70.0)	2 (6.7)	2 (6.7)	Very unreliable	30 (100)	2.933
		5 (16.7)			4 (13.3)			
3.Superior distribution system	1 (3.6)	4 (14.3)	15 (53.6)	7 (25.0)	1 (3.6)	Inferior distribution system	28 (100)	3.107
		5 (17.9)			8 (28.5)			
4.Superior sales force	-	2 (6.9)	17 (58.6)	8 (27.6)	2 (6.9)	Inferior sales force	29 (100)	3.345
		2 (6.9)			10 (34.5)			
5.Well designed	-	3 (10.0)	15 (50.0)	9 (30.0)	3 (10.0)	Poorly designed	30 (100)	3.400
		3 (10.0)			12 (40.0)			
6.Very cheap	1 (3.3)	1 (3.3)	13 (43.3)	13 (43.3)	2 (6.7)	Very expensive	30 (100)	3.467
		2 (6.7)			15 (50.0)			

Table 7.40: UK Performance compared with Foreign Competitors (Cont'd)

	1	2	3	4	5		Total	Mean**
	N (%)	N (%)	N (%)	N (%)	N (%)		N* (%)	
7.Superior advertising and sales promotion	1 (3.4)	1 (3.4)	12 (41.4)	13 (44.8)	2 (6.9)	Inferior advertising and sales promotion	29 (100)	3.517
		2 (6.9)			15 (51.7)			
8.Superior image and reputation	-	2 (6.9)	14 (48.3)	9 (31.0)	4 (13.8)	Inferior image and reputation	29 (100)	3.517
		2 (6.9)			13 (44.8)			
9.Reliable delivery	-	2 (6.9)	14 (48.3)	8 (27.6)	5 (17.2)	Unreliable delivery	29 (100)	3.552
		2 (6.9)			13 (44.8)			

* Number of valid observations.

12. Control and Evaluation of the Marketing Function

To achieve marketing objectives and to help in the achievement of competitive success, British textile machinery firms must control their marketing efforts effectively.

The first stage in this area of investigation was to determine the extent to which British textile machinery companies carry out some types of control of the marketing function, such as management by objectives, budgetary control, marketing audits, sales analysis and control charts.

As can be seen from Table 7.41 the majority of companies claim to carry out some type of control of the marketing function on a frequent basis. The most frequently used method for controlling the marketing activities are budgetary control and sales analysis. Management by objective was given as the third most frequently used method of control. Marketing audits and control charts were less regularly analysed, few companies claimed to carry each out on a regular basis. These are methods of control which are simple to understand and operate, yet which can be effective in given control as described by numerous writers such as Baker and Kotler.

The second stage in this area of investigation was related to the basis for evaluating marketing performance. Respondents were requested to indicate the major bases which they used in evaluating their marketing functions. These are presented in Table 7.42 in order of importance.

The findings of Table 7.42 reveal that overall profits, total sales volume, return on investment and market share by product are the major factors used in evaluating the marketing performance. On the other side market share by market and sales force expenditure appeared to be of less use in this regard.

Overall the above findings indicated that the majority of companies in the sample studied exhibited a tight control of the marketing functions.

Table 7.41: Frequent control of the Marketing Functions

Frequent control of:	Frequently	Sometimes	Never	Total
	N (%)	N (%)	N (%)	N (%)
1.Sales analysis	11 (36.7)	16 (53.3)	3 (10.0)	30 (100)
2.Budgetary control	16 (55.2)	10 (34.5)	3 (10.3)	29 (100)
3.Management by objectives	9 (31.0)	14 (48.3)	6 (20.7)	29 (100)
4.Marketing audits	1 (3.4)	16 (55.2)	12 (14.4)	29 (100)
5.Control charts	1 (3.4)	10 (34.5)	18 (62.1)	29 (100)

* Number of valid observations

Table 7.42: Importance of factors in Evaluating Marketing Performance

Factors	Points*	Rank
1. Overall profit	167	1
2. Total sales volume	135	2
3. Return on investment	116	3
4. Market share by product	104	4
5. Market share by market	85	5
6. Sales force expenditure	56	6

* Ranking is given according to the following: The first factor was given six points, the second five points, and so on.

Main Conclusion

In this section an attempt was made to explore the current status and performance of the marketing activities undertaken by British textile machinery firms under investigation to face foreign competition in both domestic and export markets, as well as

generating information about the role of some marketing factors in achieving competitive success in the field of textile machinery.

To do so, the following areas were investigated as follows:

1. Marketing planning
2. Market segmentation
3. Market research
4. Product policy
5. Services
6. Pricing
7. Promotion
8. Personal selling
9. Distribution
10. Key factors for competitive success
11. Competitor analysis
12. Control and evaluation of the marketing functions.

It would seem that, while some textile machinery firms were very sophisticated and successful marketers, there was considerable scope for improving the current performance of the marketing activities carried out by other firms in the sample studied.

More specifically, there are some good signs in the attitudes and practice of the marketing activities carried out by respondent firms, the most obvious areas were providing high standard of services, promotional activities, test market, and market segmentation.

In turn the findings of this survey revealed weaknesses in marketing orientation concerning various marketing activities adopted and pursued by a large proportion of the respondents. The most notable areas were, inability to produce and introduce unique products, lack of marketing planning, inadequate market research and unawareness of studying competitor's activities. In other

words the marketing concept, with its total integration of business activities designed to provide customer satisfaction as well as the achievement of the companies' goals, is not wholly adopted and implemented by the British textile machinery firms under investigation.

From the above, and as long as our sample was considered reasonably representative to the firms operating in the textile machinery industry as a whole, one may claim that the lack of commitment to marketing orientation is a factor behind the declining competitiveness of the British textile machinery industry. As such it lends support to our first hypothesis put forward in the previous chapter that "the marketing techniques used by the majority of British textile machinery firms are not adequate to meeting the challenge the firms appear to be facing from foreign competition".

In the following section an attempt will be made to examine to what extent poor marketing has been a significant restraint on British textile machinery industry international competitiveness, as well as the respondents' views on those actions that might be taken by the UK government to improve the international competitiveness of the industry.

SECTION THREE

Factors affecting Competitiveness in the UK Textile Machinery Industry

Introduction

Having presented the actual performance of the marketing function carried out by respondent firms, it is convenient to turn our attention to examine the main reasons underlying the decline of the UK textile engineering industry's international competitiveness. In particular the investigation focuses on understanding the role that marketing factors have played in this decline and the means by which other countries have avoided or overcome similar circumstances.

In addition to the above, this section is aimed at generating information about government assistance to the industry as well as the view of respondents on those actions that might be taken by the UK government to improve the competitive position of the industry.

In order to achieve these aims, the survey investigated the following three major areas:

1. Reasons for the UK's lack of international competitiveness in the world of textile machinery industry.
2. Factors affecting the future competitiveness of the UK textile machinery industry.
3. What steps government might take to improve the competitive position of the industry.

1. Reasons for the UK lack of international competitiveness in the world textile machinery industry

Respondents were asked to specify these factors underlying the decline in the UK textile machinery industry's competitiveness using a five point scale ranging from "extremely important" to "not

important at all". Fourteen factors were suggested by the questionnaire and the respondents were also requested to add any others that they thought were important. These factors which were proposed by the questionnaire include these factors related to marketing that were the subject of an extensive discussion carried out by the researcher in his literature review. The answers received are ranked according to the mean value and are presented in Table 7.43.

From this table it is becoming evident that respondent firms considered only the first ten factors as main reasons behind the decline of competitiveness of the British textile machinery industry where the percentage of respondents who mentioned these factors was higher than the percentage of those who quoted them as less important. The results also revealed that the remaining factors are considered of less importance as reasons behind the UK lack of international competitiveness where the negative side of the scale outweighed the positive side.

From the above findings the following conclusions can be made:

1. Foreign firms are seen to adopt a more professional and positive attitudes towards marketing to attack British manufacturers in both the UK and export market.

2. The role played by non-price factors in the UK's lack of international competitiveness in the textile machinery industry was more important than that played by the price factor. It is strongly suggested by Table 7.43 that foreign manufacturers have achieved their competitive advantage over the British mainly due to their ability to produce more advanced and well designed machines. Lower prices of imported machines was largely discounted among reasons given by UK manufacturers for losing their competitive edge in the market place.

Table 7.43: Reasons behind the decline in the UK textile engineering industry's international competitiveness

Factors	Extremely important			Not important at all		Total	Mean**
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Machines made abroad show a very high degree of technological advancement.	9 (31.0)	10 (34.5)	5 (17.2)	5 (17.2)	-	29 (100)	2.207
	19 (65.5)			5 (17.2)			
2.Foreign built machines are generally very well suited to the needs of British firms.	4 (13.8)	14 (48.3)	9 (31.0)	2 (6.9)	-	29 (100)	2.310
	18 (62.1)			2 (6.9)			
3.More aggressive marketing by foreign manufac-turers.	9 (31.0)	6 (20.7)	10 (34.5)	3 (10.3)	1 (3.4)	29 (100)	2.345
	15 (51.7)			4 (13.8)			
4.UK delivery promises are unreliable.	6 (20.7)	10 (34.5)	11 (37.9)	1 (3.4)	1 (3.4)	29 (100)	2.345
	16 (55.2)			2 (6.9)			
5.Lack of sales effort by UK firms	5 (17.2)	12 (41.4)	6 (20.7)	5 (17.2)	1 (3.4)	29 (100)	2.483
	17 (58.6)			6 (20.7)			
6.Foreign machinery is better in all-round design and performance.	3 (10.3)	10 (34.5)	10 (34.5)	5 (17.2)	1 (3.4)	29 (100)	2.690
	13 (44.8)			6 (20.7)			
7.UK firms are unable to meet peak demand	3 (10.3)	10 (34.5)	8 (27.6)	6 (20.7)	2 (6.9)	29 (100)	2.793
	13 (44.8)			8 (27.6)			
8.Lack of promotional efforts e.g advertising and sales promotion by UK firms.	2 (7.1)	8 (28.6)	9 (32.1)	8 (28.6)	1 (3.6)	28 (100)	2.929
	10 (35.7)			9 (32.1)			

Table 7.43: Reasons behind the decline in the UK textile engineering industry's international competitiveness (Cont'd)

Factors	Extremely important			Not important at all		Total	Mean**
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
9.Foreign machinery is of better all-round quality	1 (3.4)	8 (27.6)	13 (44.8)	6 (20.7)	1 (3.4)	29 (100)	2.931
	9 (31.0)			7 (24.1)			
10.Foreign machinery is more reliable.	1 (3.4)	9 (31.0)	11 (37.9)	6 (20.7)	2 (6.9)	29 (100)	2.966
	10 (34.5)			8 (27.6)			
11.Greater availability from stock of foreign built machinery.	2 (6.9)	10 (34.5)	5 (17.2)	8 (27.6)	4 (13.8)	29 (100)	3.069
	12 (41.4)			12 (41.4)			
12.Foreign firms generally offer superior after-sales service.	3 (10.3)	3 (10.3)	14 (48.3)	6 (20.7)	3 (10.3)	29 (100)	3.103
	6 (20.7)			9 (31.0)			
13.Inadequate import control programme.	2 (7.1)	4 (14.3)	5 (17.9)	7 (25.0)	10 (35.7)	28 (100)	3.679
	6 (21.4)			17 (60.7)			
14.Imported products are cheaper	2 (6.9)	4 (13.8)	5 (17.2)	7 (24.1)	11 (37.9)	29 (100)	3.724
	6 (20.7)			18 (61.1)			

* Number of valid observations.

** The lower the mean the more important the factor was considered by respondents as a reason behind the UK lack of international competitiveness.

3. The results reported here concerning after-sales service reinforces the earlier findings in the previous section that the majority of British textile machinery firms see this as a competitive advantage.

4. Inadequate import control is not seen as an important factor which may be a hopeful sign that at least our respondents recognise the need to compete rather than shelter behind tariff barriers.

These results support the second hypothesis that "Poor marketing, and more specifically, non-price factors have been a significant restraint on the British textile machinery industry international competitiveness", and are in agreement with the previous studies conducted in the UK which showed that inadequate marketing has been an important factor in the decline of the British competitive market position.

2. <u>Factors affecting the future competitiveness of the UK textile machinery industry</u>

As we have suggested in Chapter 4 of this thesis, if British industries are to retrieve and maintain their traditional competitiveness in the world market, a fundamental marketing orientated approach should be adopted by management of these industries. In particular British firms should focus their attention on non-price competitiveness.

Hence an attempt is made to investigate the role of various marketing factors in improving the competitive position of the British textile machinery industry in the world market.

Respondents were asked to specify these factors using a five point scale ranging from "extremely important" to "not important at all". The answers received are ranked according to the mean value and presented in Table 7.44. The lower the mean the higher the

Table 7.44: Factors affecting the future competitiveness of the UK textile machinery industry

Factors	Extremely important			Not important at all		Total	Mean
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Making what the customer wants rather than selling what the textile manufacturer can make.	19 (63.3)	7 (23.3)	3 (10.0)	-	1 (3.3)	30 (100)	1.567
	26 (86.7)			1 (3.3)			
2.Increasing investment in technological innovation.	13 (43.3)	14 (46.7)	2 (6.7)	-	1 (3.3)	30 (100)	1.733
	27 (90.0)			1 (3.3)			
3.Meeting delivery dates.	15 (50.0)	8 (26.7)	5 (16.7)	2 (6.7)	-	30 (100)	1.800
	23 (76.7)			2 (6.7)			
4.More aggressive marketing.	15 (50.0)	9 (30.0)	3 (10.0)	2 (6.7)	1 (3.3)	30 (100)	1.833
	24 (80.0)			3 (10.0)			
5.Better all-round design and performance.	13 (43.3)	10 (33.3)	5 (16.7)	2 (6.7)	-	30 (100)	1.867
	23 (76.7)			2 (6.7)			
6.Improving sales effort.	11 (36.7)	14 (46.7)	3 (10.0)	2 (6.7)	-	30 (100)	1.867
	25 (83.3)			2 (6.7)			
7.Providing efficient after-sales service.	10 (33.3)	15 (50.0)	3 (10.0)	2 (6.7)	-	30 (100)	1.900
	25 (83.3)			2 (6.7)			
8.Improving performance reliability.	9 (30.0)	14 (46.7)	4 (13.3)	2 (6.7)	1 (3.3)	30 (100)	2.067
	23 (76.7)			3 (10.0)			

Table 7.44: Factors affecting the future competitiveness of the UK textile machinery industry (Cont'd)

Factors	Extremely important			Not important at all		Total	Mean
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
9.Improving the quality of the machine.	11 (36.7)	8 (26.7)	6 (20.0)	4 (13.3)	1 (3.3)	30 (100)	2.200
	19 (63.3)			5 (16.7)			
10.More competitive price.	7 (23.3)	7 (23.3)	11 (36.7)	3 (10.0)	2 (6.7)	30 (100)	2.533
	14 (46.7)			5 (16.7)			
11. Improving promotional efforts e.g advertising, sales promotion.	2 (6.7)	11 (36.7)	12 (40.0)	4 (13.3)	1 (3.3)	30 (100)	2.700
	13 (43.3)			5 (16.7)			

* Number of valid observations.

factor was considered by respondents as essential for improving the competitive situation of the industry.

It can be seen from Table 7.44 that almost all respondent firms considered all the factors to be essential for improving the competitive situation of the British textile machinery industry.

Making what the customer wants rather than selling what the textile machinery manufacturers can make is the first way through which British textile machinery firms will be able to maintain their traditional competitiveness in the world market. Hence marketing is not about being all things to all men but about examining the customers, segmenting them, analysing their current and potential needs and deciding whether the current machine is suitable for the market in question. If it is not, a decision must be taken on the viability of the changes that may be required to make it acceptable in terms of design, quality, price and so on.

Great importance is placed on increasing the level of investment in technological innovation. This result provides empirical evidence in support of our earlier argument in Chapters 3 and 4 that investment in new technology is one of the most important factors for maintaining the traditional competitiveness of British industries in the world market. As such, it gives support to Baker's argument that if the British are to retrieve and maintain the traditional competitiveness of their products in international markets, in the area of high technology capital equipment, they should emphasise ".... R & D and technology push".

Again the data in Table 7.44 very strongly supports the contention that non-price factors are an extremely important ingredient in determining the competitiveness of the industry. However, in spite of the low score of "pricing" this factor remains an important tool for improving the competitive position of the industry. This in turn supports the argument that price is still

essential because all the marketing mix work together and it is difficult to determine the effect of any factor in isolation.

In general it is clear that maintaining the traditional competitiveness of the UK textile machinery industry in the world market is associated with all features of competitive marketing.

This latter conclusion lends strong support to Smally[3] the managing director of Stone Platt when he stated that Britain will remain competitive in the world market but if and only if:

- we remain market oriented;
- we have the incentive and will to remain world leaders;
- we get our priorities and product specialisation right;
- we are allowed to earn enough money to plough back into future research and into modern machine tools and equipment.

Finally our results are in line with a recent study conducted in the US textile machinery in 1986[4] where the following factors were suggested to improve the competitive position of the industry:

- Making what US customers want is the way through which the industry can retrieve and maintain competitiveness;
- Renewed commitment to research and development;
- Increased emphasis on automation, electronics and computerisation;
- Specialised in unique market niches;
- Improved service and quick response to US mills.

3. The Role of Government

Government macro-economic policy and policies aimed at specific industries can have an important effect on firms' adoption of the marketing concept and their international competitiveness. Here the main aim is to outline the government aids to the British textile machinery industry. To achieve this purpose respondents

were asked to indicate whether or not they have received any kind of assistance from government. The results are reported in Table 7.45 which indicates that the majority of respondents including small and large firms have received assistance from government.

Table 7.45: Number of companies received assistance from government

Categories	N*	%
Small		
Yes	22	78.6
No	5	17.9
Don't know	1	3.5
TOTAL	28	100.0
Large		
Yes	3	100
No	-	-
Don't know	-	-
TOTAL	3	100

* Grand Total = 31

Firms which reported that they have received assistance from government were asked to indicate what kind of governmental aids they have received. The results are illustrated in Table 7.46. From this table it can be seen that assistance with overseas exhibitions, grants for design and development, information about overseas markets, assistance with missions abroad, and export credit guarantees are the most frequently mentioned areas of government support. On the other hand government support in the area of product development, training, overseas market research, government loans, joint venture support, development areas, building grants, interest relief grants and grants for setting up a new export market seem to be of little weight, although it might be

of importance to improve the competitive position of these companies as reported later in this section.

Table 7.46: Types of Governmental Aids

Types of Assistance	N	%
Assistance with overseas exhibition	17	68.0
Grant for design and development	15	60.0
Information about overseas markets	14	56.0
Assistance with trade missions abroad	14	56.0
Export credit guarantees	13	52.0
Assistance towards product development	10	40.0
Employment and training	5	20.0
Overseas marketing research advisory service	5	20.0
Government loan	3	12.0
Relief grant on capital cost	3	12.0
Joint venture support	3	12.0
Development area building grants	2	8.0
Interest relief grant	1	4.0
Research department	1	4.0
Grant for setting up new export marketing	-	-

Base = 25 = 100%

In order to shed more light on this area of investigation respondents were asked to give their opinion on a list of steps that government might take to improve the competitive position of the industry, using a five point scale ranging from "extremely important" to "not important at all". The answers received are ranked according to the mean value in Table 7.47. The lower the mean the more important the step was considered by respondents.

Table 7.47: Importance of steps that government might take to improve the competitive position of the UK textile manufacturing industry

Factors	Extremely important			Not important at all		Total	Mean
	1	2	3	4	5		
	N (%)	N (%)	N (%)	N (%)	N (%)	N* (%)	
1.Provide better credit facilities	12 (38.7)	9 (29.0)	7 (22.6)	1 (3.2)	2 (6.5)	31 (100)	2.097
	21 (67.7)			3 (19.7)			
2.Reduce company taxation	11 (35.5)	12 (38.7)	3 (9.7)	2 (6.5)	3 (9.7)	31 (100)	2.161
	23 (74.2)			5 (16.1)			
3.Make development grants more easily available.	9 (29.0)	12 (38.7)	6 (19.4)	3 (9.7)	1 (3.2)	31 (100)	2.194
	21 (67.7)			4 (12.9)			
4.Facilitate specialist training for engineering graduates in textile engineering.	9 (29.0)	9 (29.0)	9 (29.0)	3 (9.7)	1 (3.2)	31 (100)	2.290
	18 (58.1)			4 (12.9)			
5.Encourage textile education.	6 (19.4)	13 (41.9)	8 (25.8)	2 (6.5)	2 (6.5)	31 (100)	2.387
	19 (61.3)			4 (12.9)			
6.Leave industry alone.	7 (22.6)	5 (16.1)	11 (35.5)	4 (12.9)	4 (12.9)	31 (100)	2.774
	12 (38.7)			8 (25.8)			
7.Offer incentives for the UK textile industry to buy British.	6 (19.4)	11 (35.5)	1 (3.2)	7 (22.6)	6 (19.4)	31 (100)	2.871
	17 (54.8)			13 (41.9)			
8.Provide consultancy and advice.	-	3 (10.0)	13 (43.3)	9 (30.0)	5 (16.7)	30 (100)	3.533
	3 (10.0)			14 (46.7)			

* Number of valid observations.

From Table 7.47 it appears that the first seven factors were considered as important steps that government might take to improve the competitive position of the industry because the positive scores (Column 1, 2) of the scale outweighed the negative ones (Columns 4, 5). The reverse is true for the final step indicated in the table.

Providing better credit was considered the most important step that government might take to improve the competitive position of the industry. This gives further support to the argument that many textile machinery firms may be able to achieve a position of competitive advantage through the development of effective credit strategy.

Clearly in many developing countries in which many British textile machinery exporters are involved some buyers are looking for cheap general purpose equipment where the credit facilities play an important role.

With regard to taxation, the textile machinery respondents clearly felt that they had suffered unduly because of the taxation problem. Taxation in the UK has been too high. This evidence is apparent from Table 7.47 where the majority of firms believed that reduced company taxation is an important factor for improving the international competitiveness of the industry.

Also to maintain the industrial competitiveness it is essential that government should make development grants more easily available (mean 2.194). This might be because due to the recent recession, few firms are in a position to undertake capital investment without government grants.

Referring once more to Table 7.47, great importance was placed on encouraging textile education and specialist training as further steps which might be taken by the British government to improve the

competitive situation of the industry. This result may give support to what we established earlier, namely that the absence of a sound education system and the specialist training for engineering graduates in textile engineering may be blamed for the UK lack of international competitiveness. It also adds strength to Dr Ray Harwood's study in 1986[5] which reported that "It is the opinion of the companies that as a matter of immediate urgency, it is essential that school leavers, at all levels of attainment, are well informed of the good prospects for their future and of rewarding and intellectually stimulating nature of the vacancies within these" (i.e the textile and textile machinery companies).

Finally leaving industry alone without interference from the government and giving incentives for the UK textile industry to buy British are regarded as important steps that might contribute to the competitive success of the industry, however, consultancy and advice was rated as being of lesser importance.

To end this area of investigation respondents were asked to propose some other steps that government might take to improve the competitive position of their companies. The answers received to this question indicated that there is an urgent need to take action by government in the following areas:

1. The growing need for early reduction in interest rates.

   Export credit support in the UK has been generally inadequate. Several firms felt that with better government credit support it could have increased its export by winning some major orders lost to overseas competitors who were supported by their government.

2. Associated with the above, the need to encourage a reduction in the value of sterling.

Respondents said that government policies can affect the value of the pound. The British government has not done the things that are needed to change the value of the pound. Many think it is overvalued.

However, an over-valued pound is not causing all the problems in the British textile machinery industry. Certainly it has discouraged exports which are down significantly. But, the value of the pound does not change the urgent need for competitive marketing strategy as the previous findings indicated.

3. More incentives and more effort in innovation and product development are needed.

4. Information and consulting service is needed to help owners and managers of small businesses with their plans and problems and also to advise those thinking of starting their own business.

   This finding is inconsistent with the previous result regarding "Providing consultancy and advice as a further step for improving the competitive position of the industry". Nevertheless, there is no doubt that using such consulting services in West Germany is seen by some British manufacturers as an important contributory factor in the success of the West German textile engineering industry.

5. Encouragement and support for exporting activities through advice, financial assistance, information about tariffs, non-tariff barriers and other regulations.

6. The critical importance of action to deal effectively with upsurge of imports from other foreign countries.

7. Some firms claimed that UK government and industry have adverse relationships rather than the co-operative one enjoyed by foreign competitors. The UK government was not seen to be sensitive to business needs in its bureaucratic requirements.

Finally a sample of typical comments offered by respondents in this matter were as follows:

"Reduce taxation, stabilise exchange rate, improve credit facilities for customers, financing export."

"1. Remove red tape;
2. Reduce tax burden;
3. Encourage financial institutions to provide more risk capital at home and overseas."

"Create a situation in which Britain works. By which I mean that plans and timetables are not constantly disrupted by labour and union disputes."

"Prevent dumping of textiles which prevent fair competition by our customers. A solid home market increases our chances in the export markets."

"By further improving personal tax incentives beyond BES to encourage much more money into manufacturing industry plus lower corporation taxes, etc. for manufacturers to pay people worthwhile rates in industry."

"Government could introduce tax concessions on expenditure for new plant to help maintain competitiveness."

"Support in overseas promotion, i.e exhibitions, travel grants."

In summary the UK textile machinery industry has been the recipient of substantial government aid in the past, but generally government policies were not seen to play an important role in the

competitiveness of the industry. Many firms in our sample felt that government support did not result in successful new product development or export competitiveness. A result which supports the third hypothesis that "Government aid to the UK textile machinery industry is not sufficient to maintain its competitiveness".

Main Conclusions

A number of important points have arisen from this section. The more significant of these are:

1. Because the competitive performance of the UK textile machinery industry has declined in the world market, it was decided to ask British textile machinery manufacturers a series of questions relating to the reasons for this lack of international competitiveness. The answer to these questions indicated that some of the reasons for that decline are linked to a relative lack of marketing orientation. In other words reasons given for the steady decline in the UK industry's share of the home and export markets, over the past five years or so, had been mainly due to a rapid improvement in the performance and marketing ability of foreign competitors and lack of aggressive marketing by British firms, foreign built machines are generally very well suited to the needs of the customer, machines made abroad show a very high degree of technological advancement, foreign machinery is well designed, more reliable and of better all round quality and performance, UK delivery promises are unreliable, lack of sales effort by UK firms, and finally poor promotional efforts by UK firms, after-sales service, greater availability from foreign made machinery, inadequate import control programme and lower price were of less importance as reasons behind the decline of the industry.

2. In view of the important changes taking place in the UK textile machinery industry and the urgent need to improve its competitive position, all British textile machinery firms needed to adopt a professional approach to marketing. This involved a full understanding of customer needs, belief in innovation, the need to produce well-designed and reliable machines, provide quality service, competitive price and an awareness of the importance of promotion.

3. The government's role was the essential one of providing the stable environment in which the industry could improve its competitive position.

   From government the industry asked for better credit provision, reduced company taxation, make development grants more available, facilitate specialist training for engineering graduates in textile engineering, encourage textile education and leaving industry alone without any interference from the government in its affairs.

   Other forms of support might include, overseas market research, stabilise exchange rate, joint venture support and financial assistance to smaller companies reflecting the currency provided by some other foreign governments to their textile machinery manufacturers.

Therefore, we conclude that, in order to retrieve and maintain the international competitiveness of the UK textile machinery industry, it is essential that there should be radical changes in the attitudes of British management and government regarding the current performance of the marketing functions. As for company managements, they should understand that the company's success depends on studying the customer's wants and genuinely making progress in doing so. They should reconsider and re-evaluate the traditional components of competitive marketing and refashion them according to the need of the market.

Also government should seek to remove the many obstacles which impede the performance of the industry including lack of investment, lack of qualified R & D manpower and bureaucratic practices. Without these radical attitudinal changes there will not be any guarantee of finding a solution to the industry's problems and its decline will continue.

In the following chapter the contribution and limitations of the study and some suggestions for further research will be presented.

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CHAPTER 8

SUMMARY AND IMPLICATIONS OF THE STUDY

CHAPTER 8

SUMMARY AND IMPLICATIONS OF THE STUDY

Introduction

The UK textile engineering industry has suffered a decline in international competitiveness during the post-war years. At this time the industry faces keen competition from foreign producers abroad and in the UK market. However, there is no available detailed study which evaluates the current practice and performance of marketing in this industry which has been proposed as one of the main reasons behind its declining competitiveness. Such a study is felt to be necessary in order to help British management and government to take the necessary action which enable companies in the industry to become more efficient and competitive.

The objectives of this research were therefore:

1. To assess how appropriate present policies towards marketing in the British textile machinery firms are to meeting the challenge they appear to be facing, in particular from foreign competition. Specifically, is the level of marketing technique adopted by the British firms in the industry adequate to meeting this challenge?

2. To discover which policies and which particular patterns of marketing are associated with competitive success.

3. To gain an understanding of the reasons underlying the decline of the UK textile machinery industry's international competitiveness. In particular the research focuses on understanding the role that marketing factors have played in the declining competitiveness of the UK textile engineering industry.

4. What improvements can British government and management make to avoid this decline and improve their competitive situation.

Drawing upon influences from the study findings the main conclusions are as follows:

1. The marketing concept with its total integration of business activities designed to provide customer satisfaction at a reasonable profit, is not wholly adapted and implemented by the UK textile machinery firms under investigation. This lack of commitment to a marketing orientation may be a reason behind the decline competitiveness of the British textile engineering industry.

2. In support of the above, the study findings have also shown that the steady decline of the UK textile machinery industry's international competitiveness is due to the approach adopted by British management in selling their machines in the market place. Many British companies are production or sales, rather than marketing oriented. By contrast the in-roads being made into the UK market by foreign textile machinery manufacturers were largely based on a strategy aimed at satisfying consumer needs and wants.

3. As for the future competitiveness of the industry the results demonstrated that all the British textile machinery firms needed to adopt a professional approach to marketing. This involved a full understanding of customers, belief in market segmentation, produce well designed and reliable machines, provide after sales service, offer competitive price and awareness of the importance of promotion and distribution.

4. Government policy also has a major role to play to improve the current performance of the industry. The study findings revealed that respondents consider they receive less support from government than that provided by some other countries to their textile machinery industries and this hinders the competitive position of the UK industry.

Implications of the Study

In terms of the rationale and objectives of this study, the results obtained make important contributions which have implications for marketing management and government policy.

For Marketing Management

The major implication of this study is the need to apply the marketing concept in the UK textile engineering industry if Britain is to maintain its traditional competitiveness in the world of textile machinery. The results of this study showed that the marketing approach, adopted by British and foreign management, is an important influence on the performance of their industries.

More specifically the results of this study suggest that the following changes would be needed in order to improve the competitive position of the UK textile manufacturing industry.

1. British textile machinery manufacturers should change their attitudes regarding the vital role of marketing as a competitive tool for achieving competitive success. Such attitudes must give more attention to the sovereignty of the customer, placing them at the beginning of the exchange process, not at its end.

2. For success the industry requires both a long term strategy and appropriate tactics. Its aim should not be necessarily to produce more machines but to manufacture them at higher quality and more cheaply relative to overseas competitors. To do so British management must pay greater attention to determining customer needs and translating these into cost effective and reliable products.

Furthermore, the findings of this study contribute to the theory of marketing which stresses the importance of the firm's marketing mix variables of product design, quality, reliability,

after-sales service, price, distribution and promotion in order to achieve competitive success in the market place. In the context of this industry these elements varied in terms of their contribution to competitiveness, non-price factors namely quality, reliability, and performance were ranked more important than the price factor.

For Government Policy

This study makes a contribution to government in making clear what has happened and why it has happened. The textile machinery industry epitomises both the relative strengths which this country used to have in engineering and the problems of remaining competitive against the rest of the world.

In terms of the results obtained from this study, one would say that government efforts in the UK textile machinery industry should be directed where necessary at influencing the competitive position of the industry. Government assistance is needed in several key areas. For example it can provide financial aid, particularly to small firms. It can also encourage firms to increase their investment in new machines by providing them with the appropriate financial and technological aids. It can provide more information about overseas markets. Attempts should also be made to diminish the effects of the over-valued pound, interest rates, the shortage of raw materials and finally the shortage of skilled technical staff to redesign competitive machines.

All the above problems which have implications for competitiveness in product design, reliability, quality, price and delivery require the attention of the UK government.

Limitations of the Study

This study, like any other, has its limitations. First of all, because the number of responses in this study was low, one can not claim the respondents' views regarding the current performance

of the industry are wholly representative and wider sampling from the industry would be necessary to confirm the results of this study.

Second: This study was applied to the textile machinery industry and as such the application of its results to other industries cannot be claimed.

Third: The study has evaluated the current performance of the industry from the producers' point of view. Undoubtedly, studying the buyers' attitudes may produce further insights to the problem. However, it should be mentioned this particular limitation was imposed by the time constraints.

Taking account of these limitations we recommend alternative areas for further research:

1. As mentioned above this present study is applied only to the textile machinery industry. So, it would be of interest if a study could be made to examine the extent to which the factors investigated here have contributed to the international competitiveness of other British industries.

2. Another area of research which emerged from the present study and which could be useful is to investigate the opinion of buyers regarding the current performance of the industry. As Rothwell pointed out earlier "in seeking reasons for the declining competitiveness of the British industry, it would seem sensible to seek the opinion of the purchaser. It is he, after all, who has to weigh the factors (prices, productivity, reliability, versatility, etc) off, one against the other, when making his decision to buy from a wide range of available models of varying price and performance".

3. As was apparent from the literature review there are many successful firms from different countries such as West

Germany, Switzerland, Japan, Italy and the UK who have improved their performance in the world of textile machinery by becoming marketing oriented. As such a suggestion for further research is to examine separately and in more detail the extent to which the marketing concept and techniques have been applied in these firms and how far the application of this concept has contributed to their competitive success.

4. Alternatively one could examine the extent to which the application of specific marketing activities might contribute to the international competitiveness of the UK textile engineering industry, e.g the role of design, promotion, etc.

To conclude, in terms of a long term strategy, it would be important to emphasise the role of both government and management to improve the current performance of the UK textile engineering industry. It is recommended that a marketing oriented approach should be adopted by British management, and that government should take steps to remove the obstacles which impede the performance of the industry such as inadequate investment, lack of qualified R & D personnel and the proliferation of bureaucratic practices.

APPENDICES

APPENDIX A: Covering Letter

APPENDIX B: Follow-up Letter

APPENDIX C: Questionnaire

APPENDIX A

Professor Michael J. Baker TD BA BSc (Econ) DBA

University
of Strathclyde

STUDENT RESEARCH PROJECTS*
Department of Marketing

Stenhouse Building, 173 Cathedral Street, Glasgow G4 0RQ
Tel: 041-552 4400

March 1986

Dear Sir

I am writing to seek your help in a research project being undertaken by this Department into Competitiveness in the Textile Machinery Industry in line with the recommendation of the Textile Machinery Economic Development Committee (EDC). The objective of the research is to establish the contribution which various marketing tools may make to help companies within the Industry become more efficient and competitive.

I would be very grateful if you could take a few minutes to complete the attached questionnaire and return it in the enclosed stamped addressed envelope.

All information will be treated as strictly confidential and the results will be presented such that it will be impossible to identify individual companies. We shall also be pleased to provide a summary of the findings for your personal use should you require one.

Thank you in advance for any help you can give us.

Yours faithfully

Tawfik M. Abdel Mohsen

Tawfik M Abdel Mohsen

*Student research projects are an integral part of the undergraduate and post graduate curricula of the department.

APPENDIX B

University
of Strathclyde

Professor Michael J. Baker TD BA BSc (Econ) DBA

STUDENT RESEARCH PROJECTS*
Department of Marketing

Stenhouse Building, 173 Cathedral Street, Glasgow G4 0RQ
Tel: 041-552 4400

April, 1986.

Dear Sir,

Just before Easter I wrote to ask for your help in completing a questionnaire concerning competitiveness in the textile machinery industry.

As I have not heard from you it occurred to me that this may have become mislaid over the holiday period. To be really useful I need as many replies as possible so, if this is the case and you are willing to help, please let me know and I will send another questionnaire.

All replies will be strictly confidential and a summary of the findings will be provided on request.

I look forward to hearing from you.

Yours sincerely,

Tawfik M. Abdel Mohsen

Tawfik M. Abdel Mohsen.

*Student research projects are an integral part of the undergraduate and post graduate curricula of the department.

PART 1: COMPANY BACKGROUND

Q.1a)What is the main product manufactured by your company?
(Please tick only one answer).

Textile machinery:

- For processing fibres ☐
- For producing fabrics and carpets ☐
- Finishing and other textile machinery ☐
- Accessories ☐
- Other (please specify) ☐

_____ ☐

_____

b)Approximately what proportion of your company's sales (in money terms) are made in

UK Markets? %	Export Markets? %
☐	☐

c)Approximately how many employees do you have?

Under 50	☐
50 - 199	☐
200 - 499	☐
500 - 999	☐
Over 1,000	☐

d)What was the approximate turnover of your company in the UK during 1984?

£ _____

e)What was the approximate pre-tax profit or loss of your company in the UK during 1984?

Profit of £ _____

Loss of £ _____

PART 2

This part of the questionnaire is concerned with the British textile machinery industry generally - not necessarily your own company.

Q.2 In your opinion how important is each of the following factors as a reason behind the decline in the UK textile engineering industry's international competitiveness?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

		Scale					
	Extremely Important	1	2	3	4	5	Not Important at all
a)	More aggressive marketing by foreign manufacturers.						____
b)	Foreign built machines are generally very well suited to the needs of British firms						____
c)	Machines made abroad show a very high degree of technological advancement.						____
d)	Foreign machinery is more reliable.						____
e)	Foreign machinery is of better all-round quality ..						____
f)	Foreign machinery is better in all-round design and performance						____
g)	Greater availability from stock of foreign built machinery						____
h)	Lack of sales effort by UK firms						____
i)	Lack of promotional efforts e.g advertising and sales promotion by UK firms						____
j)	Imported products are cheaper						____
k)	Foreign firms generally offer superior after-sales service						____
l)	UK firms are unable to meet peak demand						____
m)	Inadequate import control programme						____
n)	UK delivery promises are unreliable						____
n)	Others (please specify)						
	_____						____
	_____						____

Q.3 In your opinion how important is each of the following factors in improving the competitive position of the UK textile machinery industry?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

		Scale					
	Extremely Important	1	2	3	4	5	Not Important at all
a)	More aggressive marketing						____
b)	Improving the quality of the machine						____
c)	Improving performance reliability						____
d)	Better all-round design and performance						____
e)	Increasing investment in technological innovation..						____
f)	Providing efficient after-sales service..						____
g)	More competitive price						____
h)	Meeting delivery dates						____
i)	Improving sales effort						____
j)	Improving promotional efforts e.g advertising, sales promotion						____
k)	Making what the customer wants rather than selling what the textile machinery manufacturer can make ..						____
l)	Others (please specify)						
	_____						____
	_____						____

Q.4 What is your opinion of the importance of the following steps that government might take to improve the competitive position of the UK textile manufacturing industry?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

		Scale					
	Extremely Important	1	2	3	4	5	Not Important at all
a)	Reduce company taxation						____
b)	Provide better credit facilities						____
c)	Leave industry alone						____
d)	Offer incentives for the UK textile industry to buy British						____
e)	Make development grants more easily available ..						____

f) Facilitate specialist training for engineering graduates in textile engineering .. .. ____

g) Provide consultancy and advice .. .. ____

h) Encourage textile education .. .. ____

i) Others (please specify)

_____ .. .. .. ____

_____ .. .. .. ____

PART 3: Marketing Orientation and Organisation

Q.5 By ticking the appropriate circle in the scale, please indicate the extent to which you agree or disagree with each of the following statements:

	Agree			Disagree		
	Totally	Quite	A Little	A Little	Quite	Totally
a) Marketing is mainly concerned with stimulating demand for a product.	○	○	○	○	○	○
b) Marketing is no more than the sale of a product.	○	○	○	○	○	○
c) Customers needs should be the most influential factor in making all the firms policies and decisions.	○	○	○	○	○	○
d) The aim of the company should be to sell what products it can offer rather than offering what customers want.	○	○	○	○	○	○
e) The world will beat a path to the door of the firm which makes a better product.	○	○	○	○	○	○
f) Competition and innovation from other firms have increased the importance of effective marketing.	○	○	○	○	○	○
g) A broad, comprehensive definition of marketing is selling the firm's products to their customers.	○	○	○	○	○	○

Q.6 Does the firm have a Marketing Department?

Yes ☐ No ☐

If Yes, approximately how many people does it employ?

(Write in) _____

Q.7 Does your firm engage in marketing training programmes?

Yes ☐ No ☐ (Go to Q.9)

Q.8 If Yes, what marketing programme does the firm use?

a) External programmes ☐
b) In-house programmes ☐
c) Others (Please specify) ☐

_____

Q.9 Does your company employ any of the following outside services?

	Yes	No
Marketing Research Agency	☐	☐
Advertising Agency	☐	☐
Marketing Consultants	☐	☐
Training Consultants	☐	☐
Design Consultants	☐	☐
Public Relations Consultants	☐	☐
Sales Promotion Consultants	☐	☐
Others (Please specify)	☐	☐
_____		
_____		

Q.10 To what extent does management in other departments work with sales and marketing management?

	Very Closely	Quite well	To some extent	Occasion-ally	Not at all
Manufacturing	1	2	3	4	5
R & D	1	2	3	4	5
Purchasing	1	2	3	4	5
Engineering	1	2	3	4	5
Accounting	1	2	3	4	5

Q.11 To what extent do you feel you have been given sufficient authority to do your job well?
(Please circle the most appropriate number)

To a great extent — Very little

1 2 3 4 5

To what extent do you participate in the following areas?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

Scale
To a great extent — Very little
1 2 3 4 5

a) Advising directors on marketing policy .. .. .. ____
b) Improving product quality .. .. ____
c) Marketing research .. .. ____
d) Pricing policy, discounts and credit terms .. .. ____
e) Sales promotion and advertising .. .. ____
f) Sales force management .. .. ____
g) Distribution channel policy .. .. ____
h) Other (Please specify)

_____ .. .. ____

PART 4: Current Marketing Practice

Q.12 Does your company have a formal (i.e written down and published) marketing plan?

Yes ☐ No ☐

If Yes, what period does it cover?

6 months to 1 year ☐
1 to 3 years ☐
3 to 5 years ☐
Over 5 years ☐

Other (Please specify)

_____ ☐

Q.13 Which of the following statements best describe the current marketing objectives of your company?
(Please indicate all those that apply and rank them (1,2,3 etc) in order of importance)

	Domestic Market	Export Market
To earn the maximum short-run profit	☐	☐
To earn the maximum long-run profit	☐	☐
To earn a satisfactory rate of profit	☐	☐
To gain the highest possible market share	☐	☐
To sell as much as possible	☐	☐
Others (Please specify)	☐	☐
_____		

Q.14 How are these objectives made known to the managers responsible for their achievement?

Formal written statement	☐
Informal written guidelines	☐
General company policy meetings	☐
Others (Please specify)	☐
_____	

Q.15 When formulating marketing plans, what information do you take into account?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

		Scale					
	Extremely important					Not important at all	
	1	2	3	4	5		
a)	Total market size	..	..	..	..	..	.. ____
b)	Company market share	..	..	..	..	..	____
c)	The competition	..	..	..	..	..	.. ____
d)	The degree of product differentiation	..	..				____
e)	Contribution margins	..	..	..	..	..	____
f)	Scale and experience curve effects	..	..				____
g)	Capacity utilisation	..	..	..	..	..	____
h)	Market growth rate	..	..	..	..	..	____
i)	Other (Please specify)						
	_____	..	..	..			____

Q.16 Does your company attempt to segment its customers/markets into groups?

Yes ☐ No ☐

If Yes, what bases for segmenting markets have been adopted?

Purchasing characteristics	☐
Customer size	☐
Type of application	☐
Geographic region	☐
Other (Please specify) _____	☐

Marketing Research

Q.17 Do you carry out any marketing research?

Yes ☐ No ☐ Go to Q.20

If Yes, what is the approximate annual expenditure on marketing research?

Less than £10,000	☐
£10,000 to £25,000	☐
£25,001 to £50,000	☐
£50,001 to £100,000	☐
£100,001 or more	☐

Q.18 What proportion of your marketing research is undertaken "in house"?

Write in percentage % ____

Q.19 In your opinion how important is each of the following marketing research functions to your company?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

	Scale					
Extremely Important	1	2	3	4	5	Not Important at all

a) Defining the market.. .. .. ____

b) Establishing and monitoring business trends .. ____

c) Product concept testing .. .. ____

d) Product testing .. .. ____

e) Product and brand image tests .. .. .. ____

f) Consumer preferences/motivation research .. ____

g) Price/profit analysis .. .. ____

h) Structure and organisation of channels of distribution .. .. ____

i) Promotional mix research.. .. .. ____

j) Appraising competitors activities .. .. .. ____

k) Others (Please specify)

_____ .. .. .. ____

Q.20 By ticking the appropriate circle, please indicate the extent to which you agree or disagree with each of the following reasons for not doing any marketing research.

		Agree			Disagree		
		Totally	Quite	A Little	A Little	Quite	Totally
a)	Cost	○	○	○	○	○	○
b)	From our experience we know all we need to know.	○	○	○	○	○	○
c)	Lack of necessary research facilities.	○	○	○	○	○	○
d)	Management opposition to marketing research.	○	○	○	○	○	○
e)	Time constraints.	○	○	○	○	○	○
f)	Not seen as very useful.	○	○	○	○	○	○
g)	Need for secrecy.	○	○	○	○	○	○
h)	Others (Please specify). _____	○	○	○	○	○	○

Product Policy

Q.21 How often do you change/modify your products?
(Write in) _____ years

And for what reasons do you make such modifications?
(Please write in)

_____

_____

Q.22 Does the firm have a formal (i.e written down and published) policy towards the development of new products?

Yes ☐ No ☐

Q.23 What are the major factors which influence your company's decision to innovate?
(Please tick all that apply and rank in order of importance)

a) In response to a customer's direct request ☐
b) To take advantage of a new technological capability ☐
c) In response to competitors' actions ☐
d) To achieve competitive position ☐
e) Erosion of market for existing products ☐
f) General research for improved efficiency ☐
g) Others (Please specify) ☐

_____

Q.24 Does your company test new products by marketing them in a restricted geographical area before selling them nationally?

Yes ☐ No ☐

If Yes, in your opinion to what extent are the following criteria used to assess the performance of the new product in its test market?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

Scale

To a great extent 1 2 3 4 Very little 5

a) Technological advantage of the new technique compared to other techniques or technologies of the same firm and other firms .. .. ____
b) Machine handling as far as time and ease of operation is concerned .. .. ____
c) Maintenance requirements .. .. ____
d) Energy requirements .. .. ____
e) Repair needs and use of spare parts .. .. .. ____
f) Relation of price to performance .. .. ____
g) Range of application .. .. ____
h) After-sales service .. .. ____
i) Other (Please specify)
_____ .. .. ____

Q.25 Thinking of products which you have introduced in the last ten years which you rate as successful, please indicate on the scale your opinion of the importance of each of the factors to that success.

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

		Scale					
	Extremely Important	1	2	3	4	5	Not Important at all
a)	Adequate market analysis						____
b)	Superior product						____
c)	Low price relative to competition						____
d)	Good stock availability						____
e)	Wide distribution						____
f)	Adequate salesforce						____
g)	Effective promotion						____
h)	Lack of effective competition						____
i)	Good after-sales service						____
j)	Others (Please specify)						
	_____						____

Q.26 Thinking of products which you have launched in the last ten years which you rate as unsuccessful, please indicate on the scale your opinion of the importance of each of the factors as a contributor to that lack of success.

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

		Scale					
	Extremely Important	1	2	3	4	5	Not Important at all
a)	Product defects						____
b)	Inadequate market analysis						____
c)	High price relative to competition						____
d)	Poor timing						____
e)	Competitive reaction						____
f)	Ineffective promotion						____
g)	Inadequate sales force						____
h)	Inadequate distribution						____
i)	Others (Please specify)						
	_____						____

Q.27 Listed below are some major barriers to innovation. Please use the following scale to indicate in your opinion, to what extent these factors have acted as a constraint on innovation in your own company.

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

		Scale				
	To a great extent	1	2	3	4	5 Very Little
a)	Lack of capital investment					____
b)	Lack of qualified R&D manpower					____
c)	Conditions of market uncertainty					____
d)	User management's decisions and policies					____
e)	User operatives resistance to change					____
f)	User unions resistance to change					____
g)	Own management's conservatism					____
h)	External economic circumstances (trade cycle, general recession)					____
i)	Other (Please specify) _____					____

Q.28 Would you describe your main product as

a) Unique: no comparable product exists? ☐
b) To some extent unique: some characteristics are difficult to match with competitors' products ☐
c) Standard: could be exchanged for main competitors' products? ☐

Q.29 Does your company provide its customers with any kind of service?

Yes ☐ No ☐

If Yes:
Using the scale provided please indicate how frequently <u>each</u> of the types of service is offered by your company. Please pick the appropriate number and note in the space beside each item.

		Never 1	Almost Never 2	Some-times 3	Often 4	Frequently 5
a)	The machines are guaranteed against manufacturing defects during a period of six months					____
b)	The machines are guaranteed against manufacturing defects during a period of one year					____
c)	The machines are guaranteed against manufacturing defects during a period of more than one year ..					____
d)	Machine installation					____
e)	Delivery of spares					____
f)	Technical assistance related to machine operations					____

g) Maintenance service .. .. ____
h) Repair service .. .. ____
g) Assistance for layout .. .. ____
h) Training of operators .. .. ____
i) Others (Please specify)
_____ .. .. ____

Pricing

Q.30 What are the basic pricing objectives of your company?
(Please rank in order of importance all that apply)

	Domestic Markets	Export Markets
a) Maximum long run profits	☐	☐
b) Maximum short run profits	☐	☐
c) Growth	☐	☐
d) Maintain price leadership	☐	☐
e) Stabilise market	☐	☐
f) Discourage entrants	☐	☐
g) Enhance image of firm and its offering	☐	☐
h) Others (Please specify) _____	☐	☐

Q.31 Which of the following methods does the company use in setting its pricing policy?

	Domestic Markets	Export Markets
a) Adding a percentage to full costs	☐	☐
b) Pricing according to competitive level	☐	☐
c) Pricing according to the market	☐	☐
d) Others (Please specify) _____	☐	☐

Q.32 How do your company prices compare in general with those charged by your competitors?
(Please tick one only in each column)

	Domestic Markets	Export Markets
a) Generally higher	☐	☐
b) Lower than average	☐	☐
c) About average	☐	☐

Promotion

Q.33 Has your company undertaken any promotional activities?

Yes ☐ No ☐

If Yes, which of the following methods are used?
(Please rank in order of importance)

a) Trade fairs and exhibitions. ☐
b) Advertisements in trade journals. ☐
c) Catalogues and brochures. ☐
d) Direct mail ☐
e) Point of sale ☐
f) Others (Please specify) ☐

_____

Q.34 Approximately how much does your company spend on advertising and promotion each year? (Please tick appropriate box).

Less than £25,000 ☐
£25,000 to £50,000 ☐
£50,001 to £100,000 ☐
£100,001 to £250,000 ☐
£250,001 to £500,000 ☐
£500,001 to £1,000,000 ☐
Over £1 million ☐

Q.35 On what basis does your company determine the amount to be spent on promotion? (Please tick appropriate box).

a) A fixed percentage of sales. ☐
b) A fixed percentage of profit. ☐
c) What competitors do. ☐
d) Objective and task method. ☐
e) What you can afford. ☐
f) Historical expenditure. ☐
g) Others (Please specify) ☐

_____

Sales Force

Q.36 In your opinion how important is each of the following as a criterion in sales personnel selection?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

	Scale					
	Extremely Important	1	2	3	4	5	Not Important at all
a)	Management competence	..	..	..	..	..	____
b)	Research competence	..	..	..	..	..	____

c) A high level of energy .. .. ____
d) Abounding self-confidence .. .. ____
e) Dependability .. .. ____
f) Linguistic ability .. .. ____
g) A natural tendency to be competitive .. .. ____
h) Others (Please specify)

_____ .. .. ____

Q.37 Are sales personnel given any form of training?
(Please tick all that apply)

a) Internally ☐
b) Externally ☐

Q.38 How are salesmen motivated?
(Tick one only)

a) Salary ☐
b) Commission ☐
c) Salary and commission ☐
d) Bonuses and special incentives ☐
e) Others (Please specify)

_____ ☐

Q.39 (a) How do you sell your main product in the UK market?
(Please tick all that apply)

i. Direct to industrial consumers ☐
ii. Through distributors ☐
iii. Both of these ☐
iv. Others (Please specify)

_____ ☐

Q.39 (b) In your opinion how important is each of the following methods to the sale of your company's main product to your export markets?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

	Scale					
	Extremely Important	1	2	3	4	5	Not Important at all
i.	Through foreign buyers in the UK and export houses.						____
ii.	Through agents and distributors in overseas market(s).						____
iii.	Direct sales by company personnel to overseas customers						____

iv. Through company's own marketing/sales subsidiaries .. ____
v. Licensing a foreign company to manufacture the product .. .. ____
vi. Contract manufacturing agreement .. .. ____
vii. Management contracting agreement .. .. ____
viii A joint venture with another company .. .. .. ____
ix. Others (Please specify)
_____ .. .. .. ____

Q.40 Please rank in order of importance the criteria used in selecting the preferred distribution channel.

a) Stock facilities during off peak periods ☐
b) Competitors also use similar channels ☐
c) Widespread distribution of machines ☐
d) Desire for control over the channel ☐
e) Others (Please specify) ☐
_____

Q.41 How competitive do you consider the textile machinery industry to be? (Please tick one space).

Extremely Competitive		Average		Not at all competitive
1	2	3	4	5

What is the major source of this competition?
(Tick one only)

a) Domestic firms ☐
b) Foreign firms operating in the UK ☐
c) Others (Please specify) ☐
_____

Q.42 Compared with foreign machines UK machines are:

Very reliable		About the same		Very unreliable
1	2	3	4	5

Very cheap		About the same		Very expensive
1	2	3	4	5

Well designed		About the same		Poorly designed
1	2	3	4	5

Q.43 In your opinion how important is each of the following factors in your company's sales to the UK market?

Please pick a number from the scale to indicate your opinion and note it in the space beside each item.

		Scale				
	Extremely Important	1	2	3	4	5 Not Important at all
a)	Consistent quality and product performance..					____
b)	Meeting delivery dates..					____
c)	After-sales services					____
d)	Lower price than competitors					____
e)	Promotion					____
f)	Others (Please specify)					
	_____					____

In your opinion how important is each of the following factors in your company's sales to export markets?

a)	Consistent quality and product performance..					____
b)	Meeting delivery dates..					____
c)	After-sales services					____
d)	Lower price than competitors					____
e)	Promotion					____
f)	Others (Please specify)					
	_____					____

Q.44 How would you rate UK manufacturers against foreign manufacturers in the home (UK) market on the following areas, UK manufacturers have:

Reliable delivery		About the same		Unreliable Delivery
1	2	3	4	5
Good after-sales service		About the same		Poor after-sales service
1	2	3	4	5
Superior sales force		About the same		Inferior sales force
1	2	3	4	5
Superior image and reputation		About the same		Inferior image and reputation
1	2	3	4	5

Superior advertising and sales promotion		About the same		Inferior advertising and sales promotion
1	2	3	4	5
Superior distribution system		About the same		Inferior distribution system
1	2	3	4	5

Q.45 Does your company have a formal (i.e written down and published) system for evaluating the activities of its competitors? (Please tick one only)

Yes	☐
No	☐
Don't know	☐

If Yes, which of the following factors do you consider? (Tick all that apply)

a)	Technical specification	☐
b)	New product development	☐
c)	Breadth of competitors' range	☐
d)	Service arrangements	☐
e)	Price	☐
f)	Company image	☐
g)	Marketing activities	☐
h)	Sales organisation	☐
i)	General strategy followed	☐
j)	Promotional activity	☐

Q.46 In controlling the marketing function how regularly are the following methods used?

	Frequently	Sometimes	Never
a) Management by objectives	1	2	3
b) Budgetary control	1	2	3
c) Marketing audits	1	2	3
d) Sales analysis	1	2	3
e) Control charts	1	2	3

Q.47 How important is each of the following bases for evaluating the marketing performance of your company?
(Please rank 1 = most important, to 6 = least important)

a) Overall profit ☐
b) Total sales volume ☐
c) Market share by products ☐
d) Market share by markets ☐
e) Return on investment ☐
f) Sales force expenditure ☐
g) Other (Please specify) ☐

_____

Q.48 Have government organisations made any contribution to your company during the last ten years by providing any kind of assistance? (Tick one only)

Yes ☐
No ☐
Don't know ☐

Q.49 If Yes, please indicate what governmental aids your company has received?
(Please tick all that apply)

Development area building grants ☐
Grant for design and development ☐
Government loan ☐
Relief grant on capital cost ☐
Interest relief grant ☐
Joint venture support ☐
Assistant towards product development ☐
Employment and training ☐
Information about overseas markets ☐
Overseas marketing research advisory service ☐
Grants for setting up a new export marketing research department ☐
Export credit guarantees ☐
Assistance with trade mission abroad ☐
Assistance with overseas exhibitions ☐
Others (Please specify) ☐

_____

50. Finally, what else can government do to improve the competitive position of your company?
(Please write in)

_____

_____

_____

Name of Company: _____

Respondent's job title: _____

Address for summary of results if required:

_____

_____

_____

THANK YOU VERY MUCH FOR YOUR CO-OPERATION.

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