



# EMCC case studies

## Industrial change in the textiles and leather sector: Kvadrat A/S

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## Company facts

Kvadrat A/S is a leading company in the European textile industry. In terms of the industry as a whole, Kvadrat estimates that roughly 70% produces textiles for clothes with the remaining 30% producing interior textiles. In the interior textile sector, one third of production could be termed 'contract' (public arrangements) and this area could be further subdivided into 'corporate', 'social sector and health care' and 'hospitality' (hotels, theatres etc). Kvadrat sees itself as the European market leader and also as having a significant global role within this segment. Its textiles are mostly used for furniture and curtains, and the company occupies a position in the mid and high-end markets.

Kvadrat A/S has its headquarters in the city of Ebeltoft, 50 km outside Aarhus in Denmark. It also has seven subsidiary companies in Europe (mostly sales agencies) and 14 showrooms located in the main European cities: London, Paris, Amsterdam, Milan, and Frankfurt.

As the following table indicates, Kvadrat A/S is a very successful company. For several years it has shown an increase in turnover while maintaining a good profit level.

	1998-99	1999-2000	2000-01	2001-02	2002*
Turnover**	241,296	281,565	350,210	376,763	163,844
No. of employees	86	85	95	110	109 (but 169 in Kvadrat holding).
Result**	5,313	9,583	15,089	13,079	-4,979

\* Figures for 2002-02 are for 6 months only. In 2002, Kvadrat A/S changed its accounting system to match the calendar year. This has especially influenced the figure on turnover.

\*\* All figures are in 1000 DKK.

Source: *Koebmandsstandes oplysningsbureau A/S and Kvadrat, Annual report, 2002*

The lower figure for 2002 falls outside the general pattern for the company, and there are several reasons for this. The most important is the changeover to a new fiscal principle, based on the calendar year and the apparent decline in turnover is partly related to this since the 2002 figures only cover six months. Moreover, as will be seen later, Kvadrat A/S is very sensitive to developments within the global furniture industry, which is currently experiencing its worst recession since World War II. In addition, Kvadrat has invested heavily during 2002 and also experienced problems resulting from the introduction of a new ICT system.

Nevertheless, Kvadrat considers that it has a strong competitive position, good products and a solid brand. Results for 2003 are expected to be more even, and an increase in profits is forecast for 2004.

## Market dynamics and company changes

Kvadrat's main customers are furniture architects and designers. As well as customer visits to the showrooms, Kvadrat sales staff also visit around 10,000 architects four times a year to keep them updated on product development and concepts. Architects can either order standard textiles or collaborate with Kvadrat in order to identify new concepts. A good example of this is the collaboration with the American architect Frank Gehry on developing textiles for furniture at the Walt Disney Concert Hall in Los Angeles, USA.

Recently, Kvadrat has also started to do business directly with end-users. This is mainly carried out for big corporate customers who want a new concept developed for their offices. Kvadrat's client base includes Deutsche Bank, DaimlerChrysler, and Allianz Insurance.

Kvadrat is very sensitive to fluctuations in the international building and construction industry and especially in the furniture industry. These industries are currently experiencing their worst recession since World War II, and it is evident that this has had a negative impact on Kvadrat A/S.

However, the company still enjoys its position as market leader within their industry and segment. Some years ago, a vision statement projected the future of the company as the market leader within Europe. This became true just one year later, so the vision was redefined. Today the vision forecasts the company's position as leading the market within its segments in all European regions and taking its first steps towards becoming a global market leader.

Kvadrat A/S has four main competitors in Europe, but these are mostly oriented towards the low and mid-end market segments, whereas Kvadrat focuses on mid and high-end markets - thus competition is mostly in the mid-end market. The company believes that its European competitors have a 'follower' strategy and are largely inspired by the Kvadrat designs and concepts.

In regard to competition from Asia, which has been experienced within many other segments of the textile industry, Kvadrat does not consider this as a real significant threat. The textiles produced by Kvadrat are highly sophisticated and based on a production process driven by technology and competencies. It is thought that Asian competitors will have difficulties using this approach. However, a more important consideration is the fact that Kvadrat operates with a very strong service concept. They operate a 'just-in-time' delivery process with their customers, meaning that if an order is placed before 2.00 p.m. it will be shipped the same day. Furthermore, 98% of all orders are delivered within three days. As transportation times are crucial in this industry, it would be difficult to maintain these high service standards if the textiles were produced in the Far East. Thus, the lack of Far East competitors can be explained by production technology and process, high quality standards and transport times (logistics and responsiveness).

However, Kvadrat keeps a watchful eye on developments, especially from China, as currently huge investments have been made in the textile industry and it is likely that potential competitors could emerge there. Another related issue is the location of Kvadrat's production (described in more detail in the following section). Currently, production takes place with sub-suppliers located in Europe. It could, for instance, be feasible for some of these sub-suppliers to sub-contract work to India. Kvadrat's managing director reported that some of its suppliers had examined this possibility but found it unacceptable due to inadequate technology, lack of quality, and logistical problems.

However, Kvadrat A/S does face some significant competition from the USA. This is seen as the main future challenge. American producers are very advanced in terms of technology, they have good equity, a very large home market (with a very good profitability as American customers tend to pay more for the goods), and are exposed to more advanced competition. One of the most serious competitors is the company Steelcase, which has equity of one billion dollars, is a world leader within furniture production, and has its own textile division. Kvadrat believes that textile competitors will enter the European market riding on the back of the furniture producers. There is a distinct advantage to integrated companies producing both furniture and textiles, insofar as it is easier for them to facilitate mutual learning and exchange ideas and concepts due to the common ownership of the separate divisions.

Kvadrat and other European textile manufacturers for the furniture industry could be exposed to significant competition from the American producers once they become a presence on the European market. What is keeping them out at the moment are low profitability in Europe and the complex nature of the market.

In order to anticipate this expected competition, Kvadrat A/S has initiated a number of actions. First, it tries to further increase its presence in the European market. However, it has also initiated a joint venture with one of the leading American producers which involves Kvadrat handling the marketing of American textiles on the European market, and

the American counterparts doing the same for Kvadrat in the USA. This cooperation has resulted in joint ventures on the Japanese and Australian markets, which is a way for Kvadrat to gain access to new markets. On the other hand, this is also a valuable means of gaining insight and information into the latest trends within its business area. Kvadrat can thus access market and product development information more rapidly than if the company merely gathered information from fairs and exhibitions.

A final aspect of Kvadrat's preparations for competition from American producers is investment and experience with new materials, which will be discussed below.

Broadly speaking, Kvadrat has seen a major concentration tendency among the European textile producers and it is estimated that this will continue in the future. There is only room for very big companies who have the strength to improve economies of scale and invest in technology and research and development.

Furthermore, the international engagement is of utmost importance. Historically (but also today) the most typical competitor was a small or medium-sized producer with an annual turnover of roughly four to eight million euro and a big home market share. However, this type of company will probably totally disappear within the next year and unfortunately larger competitors are not even interested in buying these companies. This means that the small or medium-sized producer will simply go bankrupt.

The main changes in the future will thus be a continuation of the concentration tendency and the significant competition that the European textile industry will face from their American counterparts. The responses to this are market penetration coupled with branding of products, research and development in new materials, and openness and engagement with customer concepts ('responsiveness').

Another issue, dealt with below, is the stronger focus on core competencies instead of value-chain integration. Historically, the industry has focused on integration as a means to facilitate transaction costs control via maintaining a steady flow. In the future, actors within the industry will have to focus on identifying core competencies and outsourcing other aspects into networks. For instance, it is evident that especially within the clothing industry more and more work will be moved to Asia where wages are low and the workforce has the competencies to produce basic goods. However, this is not yet feasible for Kvadrat, since it operates in a high-end market where customers are willing to pay more for high-quality premium products. Currently, the European manufacturers have a competitive advantage based on technology, but in the future their suppliers could subcontract some of the basic work to Asia. However, estimates are that it would take a long time before these companies could take care of the whole process and thus the European suppliers have a competitive advantage when it comes to aftercare of the basic materials.

## **Organisation and the market**

In order to keep in touch with the market – customers and broad developments within the industry concerning design trends, etc – Kvadrat maintains a number of showrooms. It also has national sales agencies in most western European countries to keep contacts with customers (architects, designers, large enterprises and end-users). Agencies have recently been set up in Australia and Japan in cooperation with a large American company. Currently Kvadrat operates mainly in western Europe, but could target eastern Europe in the future. However, this is not likely to happen in the immediate future as Kvadrat's high-end products would be considered too expensive in these locations.

For its production, Kvadrat uses 25 independent sub-suppliers mostly located in Europe. Eight of these are considered main suppliers, producing roughly 70% of the textile flow. Typically, Kvadrat purchases between 20% to 90% of sub-supplier production. Besides this, Kvadrat is a very good customer as it is a 'season buffer'/'equaliser', not heavily

dependent on seasonally fluctuations as is the case for clothing producers. As the suppliers often produce clothing also, they can use their affiliation with Kvadrat A/S to maintain stability and secure a more effective use of production technology and resources.

In terms of suppliers, Kvadrat only uses the absolute best in terms of quality and technology. These companies are often also suppliers for highly branded fashion companies such as Hugo Boss and Lacoste.

The fact that the European textile industry is very technologically advanced means that it has a competitive advantage to Asia and even America. Much of the production technology used by the American competitors has often been invented and produced in Europe.

Another advantage of using European suppliers is logistics and transportation time. If Kvadrat A/S is to maintain its service concept, which is a main part of its competitive advantage, the suppliers must be located close to Kvadrat A/S since its main warehouse is located there. The company has one million meters of textiles (sorted on 2000 individual SKUs) in stock, and 98% of orders are delivered within three days.

Before any production takes place, the concept and design are first identified. For this purpose, Kvadrat has two chief designers employed in Ebeltoft. These chief designers coordinate the work of 15 to 20 affiliated designers. These affiliated designers are freelancers, but have exclusive contracts meaning that they are only allowed to work for other companies (or as self-employed) as long as they are not working with directly competitive products. Once a concept has been identified, a concept team is set up together with procurement, which identifies the right supplier and then markets the goods. The supplier produces a given quantity which is then transported to the central warehouse from where it is distributed to customers. As is mentioned below, Kvadrat integrates information and communication technologies (ICT) in a way that allows the eight main suppliers to monitor sales and the status of goods they are producing. The aim of this is two-fold: Kvadrat can reduce stock-keeping activities since this is done by the suppliers themselves, and the suppliers get better opportunities for production planning. This is seen as a very promising way of improving efficiency and profitability, but suppliers must be ready to invest in, and open to implementing, new technology.

## **Employees**

Kvadrat A/S has experienced a significant increase in the number of employees, which grew from 90 to 160 in a short time. There is no evidence of any significant change in the gender composition, which is currently 45% male and 55% female. However, there has been a change in the level of competence and education among the employees. Within a mere three years, the share of employees having a higher education has grown from 3% to 15%.

Kvadrat views having an educated workforce as crucial to the competitiveness of the company, especially since it operates in a rather autonomous and flat organisation structure where much responsibility is delegated to the individual employee. Competencies such as the ability to cope with complex tasks and to be able to structure and maintain an overview are deemed very important. It is planned that the new generation of middle managers will need to be much more educated than previously.

The implementation of the new ICT system, which is described in more detail in the next section, has also influenced job profiles and skills requirements. As the organisation operates on a just-in-time principle, with data flowing electronically between sales and logistics, some old functions are now superfluous. This includes tasks such as receiving orders and typing of data into the logistics systems. Globally, however, the number of employees has been steadily increasing. Thus the introduction of ICT has mainly changed job profiles rather than reduced the need for employees.

A final aspect, which should be mentioned in regard to employee competencies, is the fact that Kvadrat relies heavily on market intelligence systems. These were initiated with an Oracle database system that could create intelligent overviews of sales and market development. The management of these systems and interpretation of the data require specialist skills.

## **Virtualisation of the workplace**

Kvadrat is a very technology-oriented company and has made great efforts to implement new technology. As mentioned above, Kvadrat has much experience in using market intelligence systems, which gives the company a competitive advantage through better forecasting and production planning.

Furthermore, the company has linked together all companies owned by Kvadrat. This is done with a customer relation management (CRM) database system which enables the geographically dispersed affiliate companies to share data and knowledge about customers and trends. The system is the backbone for the just-in-time principle as data flows very quickly between sales staff and the logistics department in Ebeltoft, and ultimately to stock management and procurement planning.

At present, Kvadrat is working on including its main suppliers in the system. The advantage of doing this is that the whole process, from sales to logistics and ultimately production, would be made even more efficient. The suppliers would be able to get information about their products and sales, and thus could use this information for production planning. If this system is achieved, it could result in a win-win situation, which adds positively to the competitiveness of both Kvadrat and its suppliers.

## **Research and development**

Kvadrat is a company that focuses on technology, innovation, and quality. This is what gives it a competitive advantage in the high-end market in which it operates.

A good example of research activities initiated by Kvadrat is the new waterborn textile which has been developed in cooperation with a French designer as well as with a Japanese company working with new materials. This will be a premium product that will be sold internationally to the high-end market. The textiles have new, special characteristics that improve durability and use.

The waterborn textile is only one of Kvadrat's many interesting initiatives. Currently, Kvadrat is working closely with other Japanese companies who have invented and patented a new, environmentally correct way of producing new plastic-coated materials. Not only will these new materials have certain, specific characteristics but, even more importantly, the production process has been made more efficient and environmentally-friendly. The basic concept is that the coating material can be dissolved in water instead of in highly toxic organic solvents. By doing this, only 8% of the toxic materials used in traditional production processes are needed, thus resulting in a much cleaner end-product. Furthermore, it is expected that once the production process has been even more refined, it will only require minute amounts of organic solvents to do the process.

Kvadrat is involved in these types of projects in order to come up with new textiles which are not only better than traditional goods but also have special characteristics (for example, are fire-resistant) and are produced in a 'cleaner', environmentally correct way.

Kvadrat is also working in new ways with old and well-known materials. Kvadrat makes extensive use of wool, which is a natural material with many good qualities. This has, for instance, been introduced in the American market, where there is not much tradition of using wool.

The managing director places much emphasis on innovation aspects, and feels that this will be absolutely crucial for the competitiveness of the European textile industry from now on. The winners will be companies which can offer the best products and the best service at a fair price, while at the same time managing to come up with innovative solutions.

However, the managing director believes that there is scope for more European research into new materials. Companies working intensively with new materials are generally based in the USA or Japan. Production takes place in Europe, since many companies possess good technology and the right competencies, but these companies are not inventing anything and thus are not gaining patent rights, but are merely working as production centres for others.

Europe has advanced textile manufacturers, Europe is producing the technology that others use, and Europe has a very strong chemicals industry, but there is little interplay between actors. One of the main challenges facing the European textile industry is to increase the level of innovation and technology transfer between the different sectors.

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