

8 MARKET AND TECHNOLOGY LEADERSHIP IN THE CHINESE CAR INDUSTRY

JAPANESE AND GERMAN STRATEGIES IN A DYNAMIC ENVIRONMENT

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INTRODUCTION

The People's Republic of China is becoming increasingly significant as a market and a production location for international car manufacturers. At the same time, the car sector with its components supply industry represents one of the mainstays of economic and technological development for the Chinese government. From the point of view of strategic management in companies operating world-wide, globalization and keener international competition are having a stronger impact on current investment in the Chinese market. The change in the Chinese car industry is manifesting itself on several different levels. The economic and political reforms and particularly China's entry into the WTO at the end of 2001 mark a radical change in the country's development. Foreign manufacturers are pressing into the country, eager for their share of rapidly growing demand (Haak and Hilpert 2003).

Car production is no longer tied to traditional locations. In principle, high tech products such as cars can be manufactured, more or less, the same quality all over the world. The peculiarities of the Chinese market and the specific advantages of its locations positively challenge the international car industry to get involved. Inter-firm co-operation, joint development (Haak 2000a), production and distribution and sharing components and technology as part of the international division of labour and decentralized car production are basic factors that will ensure that international strategic production management is successful in securing a global presence (Schacher 1998).

Foreign car manufacturers and the component supplier industry associated with them are introducing new organizational forms and new technologies. They are overthrowing existing manufacturing structures and making the market and the competitive situation in the Chinese car industry more dynamic. This upheaval is accompanied by much turbulence on the market. Only leadership in technology based on faster and better implementation of product and process innovation will bring about market

leadership in China. This technology leadership must be accompanied by a multifaceted marketing approach tailored specifically to the country which highlights policies regarding product design, service and similar tools in the attempt to gain the favour of Chinese consumers.

THE ROLE OF MANAGEMENT IN ESTABLISHING MARKET AND TECHNOLOGY LEADERSHIP

Despite the improved economic climate in Germany and Japan, the international competitiveness of German and Japanese car companies is still the subject of much discussion and social debate. For over thirty years, there has been an enormous amount of business activity in East Asia. Competition on world markets has become much more lively in recent years. These developments have had a considerable impact on the positions of the Japanese and German car manufacturers in global competition. The era of growth in traditional national markets is ending; more than ever before, car manufacturers and suppliers need to think and act globally to stand their ground in international competition. Corporate strategies devised by Japanese and German car manufacturers need to expand to include an international dimension which will ramp up international sales and provide opportunities for research, development, manufacture and assembly to take place in foreign countries. Any company wanting to achieve high production rates and sales income with an innovative product must look to the global market.

In order to achieve their goals, international Japanese and German car manufacturers must ensure that globally available resources are thoroughly exploited. Decentralization and globalization of goods and services is showing that different locations are good for different corporate functions. Division of labour along functional rather than production lines determines on the one hand the geographical pattern of economical activity and on the other structural specialization of the locations. For example, the early stages of a product might demand a location with good human resources for research and development; that is, the work force needs to be well educated and well qualified and the research infrastructure well equipped.

In this respect, Germany and Japan as traditional core countries for motor vehicle development still enjoy significant advantage over China. For the standardized, labour-intensive mass production of cars or, more precisely, car parts, a location with the comparative advantage of lower labour costs might be more attractive. China has the advantage over Japan and Germany here; however, the capital cost of human resources

represents only one aspect amongst many affecting the decision to set up a production base in China.

Management in Japanese and German car manufacturing companies have a permanent remit to apply strategies that will make their company the market leader. In formulating their strategic direction, they must take into account the company's business potential, the changing competition in dynamic markets such as China, prevailing social conditions and economic forces. They must generate new strategic solutions to make the company more competitive in the face of the lively motor vehicle market in China and the new international competition situation which has resulted from globalization and the strengths and weaknesses of the Japanese and German economies. The German and Japanese car manufacturers do not just want to play along in Chinese competition; on the contrary, they want to occupy the top positions in the market. In other words, they want to be market leaders. For Germany, Volkswagen is out in front, in Japan it is Honda and Toyota.

Strategic management for these car manufacturers is trying to achieve market leadership in China with new products at the peak of technological development. Market leadership requires the fulfilment of certain conditions: customer orientation and marketability practised in all areas of the company and by all employees and the establishment of a corporate culture well-disposed towards innovation. Innovation is not just confined to research and development, but is required in many areas throughout the manufacture of a motor vehicle – in the products, in the processes operating within the company and in those that deal with the market outside the company. The implementation of new technology is one of the driving forces, both in generating new sources of income and in increasing resource productivity, thus improving the overall competitiveness of car manufacturers. Continuous improvement to existing technology and processes and the development of new processes are components of strategic corporate management.

The challenges faced by Japanese and German car producers increase constantly with particularly their customers' desire for individualized cars and the trend towards shorter product life cycles presenting them with more and more work. In recent years they have responded with a much bigger range of vehicle types and variants. Increasingly complex production methods and rapid adaptation to market needs mean greater flexibility is required, which must be realized under considerations of cost, quality and supplier reliability. To this end, the Japanese and German manufacturers are pursuing strategies which ensure and increase competitiveness in an international context. Their aim is to use technology leadership to achieve market leadership in China.

CHINA'S DYNAMIC ECONOMY

At the start of the new century, China is one of the most interesting but also the most risk-laden markets in Asia. The reasons for this lie in the interaction between various economic, social and political factors. China's economy is growing at a speed and on a scale previously only seen during the "Wirtschaftswunder" years in Germany and Japan. 8.5 percent growth is forecast for China in 2003 – a development that has been sustained for years now.

The foundations for this economic development were laid in the second half of the 1970s with economic and political reforms and a more open attitude towards the rest of the world (Zhang 1998). In recent years, the dynamic economy has mainly been the result of investment by companies financed from outside China and the increase in exports that this has initiated. The Chinese government continues to rely on increasing public investment, which also stimulates growth. Joining the WTO has brought further impetus to the development, with lasting effects on global car manufacturers (DEG 1999, p. 22).

China is not a consistently uniform economic area. Commerce and buying power are concentrated mainly in the coastal regions, where most of the internationally active companies have established a presence. In the North lie the old heavy industry areas; the modern technology and service centre Shanghai is developing in the East and, since the formation of the first special economic zones, the dynamic economy of the southern regions is developing along the lines of the former British Crown Colony, today the Special Administrative Region, Hong Kong (Keller, Mönter and Drinkuth 1999).

ECONOMIC FORERUNNER REGIONS IN THE PEOPLE'S REPUBLIC OF CHINA

The income of the population is rising, particularly in the industrial centres, and new groups of buyers with a lot of money to spend need to be supplied with high-quality consumer goods – cars in particular. The automotive industry can no longer leave China as a production base and as a market out of their strategies. New forms of business organization and logistics systems along with changes in market requirements have been the key factors driving the new patterns of geographical organization in the global car industry. The car manufacturers have developed a post-Fordist production model with flexible manufacturing systems based on different technologies. Wider ranges of products and increasing numbers of variants, the establishment of sys-

tem suppliers from Japan, Germany and the USA, decreasing manufacturing penetration and accelerated market consolidation through mergers and strategic alliances (Haak 2000b) were characteristic of development at the end of the 20th century. Development, which is overall speeding up, is particularly apparent in the shrinking life cycle of new products on the Chinese market.

At the beginning of the 21st century, global competition continued to become keener, affected by many different factors. On the one hand, the geographical distribution of the demand for cars is shifting. The car industry has established new centres of production outside of the triad: in Latin America, Central and Eastern Europe, in South Korea and, more recently, in China. It is noticeable on the other hand that customers are continuing to ask for more individualization. Associated with this are demands for better quality and more exacting expectations regarding the price-performance ratio. Evidence of tighter competition and complex global production structures can be seen particularly on the procurement side of car manufacture. A global sourcing strategy allows car manufacturers to exploit price differences against a worldwide standard. Pressure to realize economies of scale has driven both manufacturers and suppliers of components to consolidate and globalize. Furthermore, changes to the political and legal conditions such as those created through WTO agreements with many countries are making access to economically interesting areas offering new market opportunities easier and faster.

No company in the car industry wanting to sustain its global market position can seriously afford to neglect the Chinese market in the long-term. Market and technology leadership in China form the key to sustained success in penetrating other markets in East and Southeast Asia (Taylor 1996).

In the course of the 1990s and the first few years of the 21st century, China has established itself as an important car producer. It is a fact that China is now in third place after Japan and South Korea in East Asia. With these rates of growth, it is only a matter of time before China ousts South Korea from second place, particularly as the Korean manufacturers suffered a severe collapse in the course of the Asia crisis. The Chinese car industry on the other hand was able to continue to grow even under such turbulent financial, economic and exchange rate conditions.

CHINA AND THE CAR INDUSTRY

Alongside the foreign companies, there are also some Chinese businesses trying to gain a foothold in the car market. The Chinese car and component suppliers industry has its roots in the 1930s when the government imposed a programme for the manufacture of commercial vehicles. With Japanese and Soviet support, production sites for HGVs were established in the trade and industry centres Shanghai, Tianjin, Changchun and Nanjing between 1938 and 1958 (Reißler 1959, pp. 322–8). With the component supplier industry still weak at that time Chinese manufacturing and assembly plants were characterized by high manufacturing penetration.

Production of the first national passenger car started in 1958 in Changchun with the “Red Flag” and in Shanghai with the “Phoenix”. The following decades saw the foundation of more companies in very different vehicle-manufacturing segments. Today, car manufacturers in China number around 130. This includes both the big joint ventures with foreign shareholders and Chinese-only producers, many of whom manufacture fewer than 1,000 vehicles a year.

In those early years, the Chinese car industry was characterized by a production system which can be described largely as a variant of the Fordist-Taylor model. Controlled by the centrally planned economy of the communist regime, the development of the factories exhibited clearly high vertical integration and little differentiation in the component supplier system. High levels of warehouse stocks, basic manufacturing technology and a low standard of quality were further characteristics of the Chinese car factories. No modern logistics systems were employed.

As the open market economy established itself from the end of the 1970s, contact was sought with the global players amongst the foreign car manufacturers with the aim of modernizing production and technology in the Chinese industry. The first joint ventures in the car sector followed in 1982. In addition, global concerns agreed terms for manufacturing under license with Chinese companies.

Volkswagen AG was the first German car manufacturer to engage in a joint venture in China. In 1985 Volkswagen started production of the “Santana” model in Shanghai. At this early stage, production took place in factories which were simultaneously used for the manually welded and assembled Chinese “Shanghai” model. This was a copy of the Mercedes Benz 180 model, a successor to the “Phoenix” mentioned above (Posth and Rieken 1998, p. 403).

At the end of the 1980s, there were around 5 million vehicles in China of which 75 percent were commercial vehicles and only 25 percent were passenger cars. The commercial vehicles were by and large locally manu-

factured models; the proportion of imported passenger vehicles was particularly high at this time. In 1985, for example, China imported 200,000 vehicles from Japan alone. To stop the outflow of currency, the Chinese government has since 1986 rigorously restricted vehicle imports whilst encouraging the development of a modern domestic car industry to produce passenger vehicles (Posth 1992, pp. 1013–30).

Of the approximately 130 car manufacturers currently operating in China, around 16 produce passenger vehicles. However only four of these companies achieve an annual output of more than 200 000 vehicles. These include SAIC (Shanghai Automotive Industry Corporation), FAW (First Automotive Works), DMC (Dongfeng Motor Cooperation) and Tianjin Automotive Industry Corporation (TAIC). Two manufacturers, Shanghai Automotive Industry Corporation and First Automotive Works, who work with Volkswagen in joint ventures, even achieve an output in excess of 200,000 vehicles annually (Grimm 1999, p. 7).

The other car manufacturers in China make at most 1000 vehicles per year. They have neither a competitive product nor sufficiently sophisticated production technology (Interview with Grimm 2000). A lack of potential for innovation together with meagre capitalization characterize these companies, weaknesses shared by the Chinese components suppliers where the situation looks equally unpromising. There are currently approximately 2,500 producers of components and parts for the car industry in China.

The organizational and geographical structure seen today in the Chinese car industry is the result of extensive institutional reform in the 1980s and 1990s. New production sites were opened in numerous Chinese provinces, which in quite a few cases has resulted in oversupply on the Chinese car market.

A KEY FACTOR IN DEVELOPMENT – STATE INTERVENTION

From an economic perspective, the transport infrastructure represents a bottleneck for the development of the car industry in China. With the exception of some excellent new infrastructure projects in the industrial centres on the coast, the motorway and trunk road system in particular is need of development to achieve an appropriate density and quality. The state is trying very hard to improve this situation with various infrastructure projects: USD 60 billion were invested in motorway construction in 1998.

The government's intention is to make the car industry one of the mainstays of the Chinese economy as quickly as possible in order to

accelerate development in other areas. The previous Chinese leadership had expert knowledge of the industry. Jiang Zemin and Li Lanqing worked in the car industry in the 1950s in Changchun and both spent time working in the car industry in the former USSR. From 1985–1990, as party leader in Shanghai, Jiang Zemin, together with the former Premier Zhu Rongji who was Mayor at the time, gave active support to building up the joint ventures with VW in Shanghai.

The Chinese government views the direct investment from foreign car companies largely as a crucial contribution towards strengthening the economic base of the country. Cars are now regarded as the key industry that will allow China to draw level with the rest of the world in economic and technological terms. The creation of new jobs, expansion of production capacity and import substitution all benefit the economic development of the country.

There are clusters of foreign parts suppliers in the coastal locations of Shanghai, Beijing-Tianjin and Guangzhou and in the interior provinces around the car industry centres Chongqing, Changchun and Wuhan. Economic policy is trying to use joint ventures to integrate foreign capital and know-how in order to improve the supplier networks and at the same time strengthen the economic, financial and technological basis of the regions.

Modernization in the Chinese car industry is not limited to the introduction of new models by foreign investors. Research and development are also being carried out in China, mainly within the context of adaptation to local conditions. One of the most striking examples of this is the Engineering Center set up by General Motors (Pan Asia Technical Automotive Center) in Shanghai. The Center has significance far beyond China as its role within group strategy is to carry out research and development for East and South East Asia.

Eventually in the long-term, 90 percent of the vehicles required by the Chinese will be from domestic manufacture. Bureaucratic restrictions limit allocation of capital from foreign investors to a maximum of half the total equity of the jointly owned company. The strategy pursued by central government is intended to establish three big internationally competitive production centres and three regional centres. The currently evolving structure has Shanghai dominating the Chinese car industry, with medium-sized production centres in Tianjin, Changchun, Wuhan, Chongqing and Guangzhou. There are also a number of small sub-centres manufacturing cars.

At the moment, only eight manufacturers play a significant role in the market. All of them have co-operative associations with foreign manufacturers. The clear market leaders are First Automotive Works (FAW),

Dongfeng/SAW and Shanghai Automotive Industrial Corporation (SAIC). There are five more which are also significant, but cannot be compared to the “big three”. The “smaller five” are Beijing AIC, Guangzhou AIC, Tianjin AIC, Chongqing Chang’an and Guizhou Yunque.

FAW and Dongfeng/SAW are controlled by the State Development Planning Commission, an institution that reports to the Council of State. The big production centres in Beijing, Tianjin and Shanghai are controlled by the local government authorities.

The examples of Volkswagen, Citroën, Peugeot and Chrysler show that regulation by state and local authorities did not stop foreign car manufacturers from operating in China. All the leading global car manufacturers are now represented in China. The “big six” (General Motors, Ford, DaimlerChrysler, Toyota, Volkswagen and Renault) are present as are slightly smaller global players such as BMW, Honda and the French company PSA.

Two joint ventures with the Volkswagen group, Shanghai Volkswagen and FAW-Volkswagen, dominate the passenger vehicle segment. Over many years Volkswagen has managed to gain a market share of over 50 percent. The competition and market situation in China only changed when Honda and General Motors became involved in the 1990s; the failure of Peugeot’s interests helped Honda to enter the Chinese market. The production facility in Guangzhou was extended to make 50,000 Honda Accord models. In the mid-1990s General Motors set up a new factory in Shanghai where 50 000 Buicks are manufactured. In the long-term, General Motors intends to develop the production facility in Shanghai further aiming to use it as a production base for the whole of Asia.

In the 1980s and early 1990s, Japanese companies were more restrained in the amount they invested directly, compared to their American and European competitors (Haak 2002; Haak 2003). The Japanese concentrated on using licensed production to gain a hold in the market (Haak 2000c). Suzuki, Daihatsu and Fuji Heavy Industries were the companies that chose this less risky approach (Bollmann 1999).

Mitsubishi Motors, in which DaimlerChrysler has a huge share, is one of the more recent competitors to appear on the Chinese car market. In Heilongjiang province, more precisely in Harbin, Mitsubishi Motors is building a new car factory. It is planning to develop a small car based on the Lancer for the Chinese market and to start engine production. The first application to the Chinese government for permission to build 20,000 to 30,000 units per year was made in 1998. 10,000 units of the Mitsubishi Pajero will be produced from 2003, as investment from DaimlerChrysler to expand production of the Beijing Jeep has failed to materialize due to falling sales figures. DaimlerChrysler has neglected production in recent

years. The factory has a capacity of 85,000 units; however only around 10,000 units were sold in 2002.

In addition, DaimlerChrysler will soon be starting production of the Mercedes Benz C and E classes in China. They will be partnered by BAIC (Beijing Automotive Industry Holding Company), which as early as 1984 was a player in the foundation of the Chrysler factory Beijing Jeep Corp. (BJC), of which DaimlerChrysler has owned 42.4 percent since the takeover. One condition of entering the Mercedes C and E classes segment was the restructuring of Beijing Jeep Corp. This is why Beijing Jeep Corp. has been manufacturing the Mitsubishi Pajero all-terrain vehicle as well as the Chrysler Jeep since 2003.

BMW is also one of the newcomers on the Chinese car market. In 2001, BMW established a joint venture with Brilliance Automotive Holdings Ltd. in Shenyang, in Liaoning province. In autumn 2003 BMW AG and its partner began trial production of the BMW 3 and 5 series and will eventually produce 30,000.

Brilliance Automotive has in the main been successful in the Chinese market with the manufacture of minibuses based on Toyota technology. In contrast, the new joint venture is targeting the premium segment in the Chinese car market.

In recent years, Toyota and Ford, who also count as newcomers, have made more powerful attempts to penetrate the Chinese market. In 2000, Ford received permission from the Chinese leadership to build up a joint venture with Chang'an in Chongqing mainly to manufacture small family cars. Mazda Motor Corp. is expanding its China operations, forecasting production and sales of 200,000 motor vehicles in China by 2007. As part of the strategic plan, the company will set up a sales holding company with FAW Group Corp. to oversee sales of locally manufactured Mazdas including three Mazda brand passenger cars produced by FAW Group subsidiaries FAW Car Co. and FAW Hainan Motor Co. Mazda and top shareholder Ford Motor Co. will begin joint production by 2007. A production facility with annual output capacity of 200,000 units will be built near Shanghai. Mazda, in charge of the production equipment and technical aspects of the factory, will produce 100,000 units of the successor to its subcompact Demio. The remaining output will be allocated to Ford subcompacts.

It is only in recent years that Toyota has entered into this dynamic and difficult market with direct investment (Haak 2001), having held back from close involvement for a long time. In the 1980s and early 90s, Toyota concentrated on the American and then increasingly on the European market. Toyota was only indirectly involved in the growth of the Chinese car market through the Xiali model (TAIC), which was manufactured

under licence from the Toyota subsidiary Daihatsu. The model was particularly successful in the taxi market throughout China. Toyota is also part of a joint venture outside of the car market which manufactures medium-sized buses in Sichuan province.

The majority of globally active car manufacturers hesitated for a long time before investing directly in the Chinese market, only becoming significantly involved after new framework conditions were created by international institutions and agreements.

SUSTAINABLE GROWTH IN THE CAR SEGMENT

The potential of the car market looks promising. As early as 1992 production passed the one million vehicle mark and today with over 1.7 million cars manufactured and sold annually, the Chinese market has already assumed an impressive size. China has become the tenth largest vehicle manufacturer in the world. The Chinese market, with its combination of a well-developed market with growth potential over coming years and an increasingly sophisticated, brand-conscious buying public has become particularly interesting for global vehicle manufacturers and their components suppliers (Haak 2001).

Car use has changed substantially over recent years. The proportion of institutions purchasing cars, such as authorities, businesses owned by political bodies (the state, province, city and so on) and other public institutions, for instance, taxi companies, has fallen in favour of private buyers. Demand for private use is booming, an indication of the rise in income in the industrial centres.

The years between 1991 and 1996 saw rapidly accelerating development in the car sector: annual average demand increased by 38 percent. The absolute figures are even more impressive: from 12,300 vehicles in 1986, production rose to over 500,000 in 1999.

A closer look at the relative production figures for cars, HGVs and buses for 1991 and the forecast for 2000 reveals a clear shift to passenger car production. In 1991, the percentage shares for cars, HGVs and buses were 11.44, 24.83 and 63.73 percent respectively. In only six years these figures have shifted in favour of car production: cars (30.44 percent), HGV (27.18 percent) and buses (42.35 percent). Forecasts for 2001 go even further: car production is expected to make up two-thirds of the total. The most important car manufacturers such as Guangzhou Honda, FAW Volkswagen or Tianjin Charade have produced more since the beginning of 1999 (Grimm 1999, p. 8). According to estimates from the Chamber for Foreign Trade in Shanghai, by 2005, the buyers will fall into groups as

follows: 55 percent private consumers, 9 percent taxi companies and 36 percent government and government offices.

By 2006 vehicle production in the PRC will reach 4.3 million units. The increase in production from 0.6 million (2001) to 2 million cars in 2006 is crucial for the direction of the market entry and technology strategies pursued by the foreign car manufacturers in China.

TRENDS IN THE CHINESE CAR SECTOR

With the increase in Chinese incomes even in small households, a trend has been apparent since the early 1990s: the popularity of small, privately-owned cars. Consequently, most car manufacturers are focussing their efforts on developing models of this kind. Shanghai Volkswagen is the only manufacturer that is not only making real efforts in this direction but also has available the necessary competence and resources to allow them to manufacture the right kind of small car for the Chinese market from start to finish in a relatively short period. In contrast, the Chinese car producers have problems particularly with the manufacturing technology but also with the quality of their products (Haak 2001).

Since the mid-1980s, Chinese manufacturers of small cars have given up producing their own engines. Chinese management has been pursuing a different strategy: that of importing Japanese technology. The Chang'an Alto, Skylark and Charade models, which are equipped with engines from Suzuki, Fuji and Daihatsu, small car brands leaders in the Chinese market in the 1990s. However, the vehicle quality overall does not yet satisfy international requirements and each attempt on the part of the Chinese manufacturers to improve the quality of their products has resulted inexorably in an increase in the sales price, which has had a not insignificant impact on the numbers sold. Introducing and maintaining higher standards of quality whilst at the same time keeping costs under control is therefore one of the core tasks for strategic and operative production management in Chinese car factories.

Rising production numbers are however only one side of the coin. Increasing competition despite increasing demand is putting pressure on prices for each of the manufacturers. Even production of the Santana at Volkswagen in Shanghai is affected. In the first quarter of 2000, sales of the Santana fell by 17.7 percent. April 2000 saw a fall over the same month in the previous year of 24 percent to 16,840 vehicles (VW 2000, p. 31).

In order to deal with further drops in sales Shanghai Volkswagen has tried to bring prices down. There is another, crucial, issue other than bringing down high levels of stock: the market share of the company

should remain above 40 percent, whereby the market share of the Volkswagen group in China overall in 2002 was 50 percent. New sales and product strategies to penetrate many different segments of the growing market are under discussion at Shanghai Volkswagen.

It is clear that China's car industry will achieve lower profit margins overall with firm pressure to keep prices down. The First Automotive Works group, which in addition to its own HGV production has also entered into various joint ventures with foreign producers (VW and Ford), is feeling considerable pressure on costs. Between 1994 and 1998 gross profits fell dramatically from USD 143.65 million to USD 13.3 million. However a turnaround came in 1999 with the launch of new HGV models. As a licensee of Deutz, FAW builds the new HGV series with modern turbodiesel engines. Together with the Volkswagen Group, FAW is currently producing the Jetta, the New Jetta and various Audi models. More than 100,000 Audis have been sold since 1988. At the beginning of September 1999, the Changchun factory shipped the first "China version" of the Audi A6, successfully maintaining its position in the luxury car market with models from DaimlerChrysler and BMW.

Shanghai Volkswagen is also launching a new model on the Chinese market: the Passat B5. Since mid-2000, the Passat has been in series production in what the VW Group refers to as one of its most modern factories. Parallel to the traditional Santana and Santana 2000 models, advanced technology is now being used to penetrate the market. On product level and in manufacturing, Shanghai Volkswagen is setting new standards. It is the company's strategic goal to counteract the growing competition in the upper middle class segment offered by the foreign manufacturers in China.

General Motors, which is also represented by a production facility in Shanghai, is also concentrating on this market segment. Shanghai Volkswagen will only be able to maintain its market position with strategic technology leadership based on rapid and uninterrupted implementation of product and process innovations. The successes that came with the pioneering strategy are gradually being exhausted; now is the time to face up to the new challenges offered by the technological innovations in the car sector and to start market launches as soon as possible. With forerunner technologies that practically have a monopoly on the market segment, it is possible to maintain a leading market position over the whole life cycle of a technology. This market position can be secured with distribution and price configuration (Bullinger 1994).

Shanghai Volkswagen intends to start producing two new small cars in China over the next few years. One of these will be modelled on the familiar Lupo; however, plans for the more distant future include the development of a completely new model.

THE VOLKSWAGEN GROUP – MARKET AND TECHNOLOGY LEADERSHIP

The Volkswagen Group recognized the long-term opportunities in the Chinese market very early on. The first discussions about Volkswagen operations in the People's Republic took place in 1978. In 1982 Volkswagen and the Shanghai Tractor & Automotive Corporation signed an agreement on the assembly of the Santana, which at that time was produced in South America and Europe. Just one year later, the Santana was rolling off the production line in Shanghai. The signing of a joint venture agreement in October 1984 represented a further important milestone in Volkswagen's involvement in China. Along with Volkswagen (50 percent) the joint venture consists of three more partners on the Chinese side: the Shanghai Automotive Industry Corporation (SAIC, 25 percent), the Bank of China (BOC, 15 percent) and the China National Automotive Industry Corp. (CNAIC, 10 percent).

Assembly of the Santana and the development of an independent engine manufacturing facility were among the basic aims of the joint venture. In addition to capital, the Chinese partners provided the joint venture with land, labour, buildings, raw materials and energy. For its part, Volkswagen undertook to develop the manufacturing technology and to impart the necessary management expertise. In 1985 the Shanghai Volkswagen Automotive Company Ltd. (SVW) joint venture went into business. As early as 1993, Shanghai Volkswagen was producing over 100,000 Santana cars and an equivalent number of engines in the custom-built factory. Two years later, production had increased to 160,000 vehicles, which included 30,000 units of the Santana 2,000 successor model.

In 1996 200,000 vehicles rolled off the line in Shanghai, of which 80,000 were Santana 2000 models. With this rapid growth, Shanghai Volkswagen expanded its capacity to 300,000 vehicles and 330,000 engines per annum. According to director Robert Büchelhofer, the VW Group sold a total of 315,232 vehicles in China in 1999. 5 percent growth is expected for 2,000 and sales are estimated at EUR 5 billion. The VW group has invested around EUR 2 billion in China so far and employs more than 10,000 workers in Shanghai. Volkswagen will continue to base its involvement and growth and expansion strategies on the strategic concept of technology leadership: by 2005, VW will have invested an additional EUR 2 billion, expecting to maintain its 50 percent market share after China joins the WTO with the Chinese car market expected to double in size in the next three to five years (Bücheldorfer 2000, p. 28).

Volkswagen AG and its Chinese partner company Shanghai Automotive Industry Corporation are investing EUR 240 million to build a new engine factory in Shanghai. VW's joint ventures in China had a capacity

of 750,000 engines at the end of 2003. In its initial phase, the new factory will supply 180,000 engines, to be upgraded to 300,000 later. The new engines are primarily intended for installation in the Polo model. Shanghai Automotive Industry Corporation President Hu Maoyuan intends to learn engine manufacture from Volkswagen, so that his company will eventually be able to produce engines suitable for export. Between January and August 2003, sales of cars in China rose by 89 percent over the previous year. VW wants to double its vehicle sales in China of 800,000 units to 1.6 million within five years.

Volkswagen's leading position in the market and in technology is also supported by its involvement in North East China, in Changchun. Following successful entry into the market in Shanghai, the next step to expansion in the Chinese market was the conclusion of a licensing agreement between Volkswagen AG and the First Automobile Works (FAW). Audi production started in the North China province Jilin, in the town of Changchun, in 1988.

The second joint venture in China followed in 1991. Volkswagen owned 40 percent of the FAW Volkswagen Automotive Company Ltd. (FAW-VW) in Changchun. Today, the products manufactured are the VW Jetta, the New Jetta and various Audi models. In September 1999 the first Audi A6 rolled off the line. VW strategic technology leadership is seen very clearly in this market segment. Audi is in 2004 testing the new Audi A6 for the Chinese market.

SUMMARY

China has developed over the last two decades into a very promising, but also very risky target country for international car manufacturers. Competition for market share is becoming keener, particularly due to China's entry into the WTO. Japanese, American and European companies are investing substantially in this dynamic market; their intention is not only to tap its full growth potential, but also to share in the locally added value in the long-term. Maintaining a presence in the country and being familiar with the market and general conditions give companies more scope for successful operation in one of the most important car markets in Asia.

The foreign car manufacturers have an important task in working with Chinese partners to develop the car and components industry into an integrated supply and manufacturing system. More modern forms of organization are finding their way into the Chinese car industry, encouraging the implementation of quality management systems. The certification of components suppliers is an important step towards achieving interna-

tional standards. However, seen against the global background, the shortfalls in the Chinese components industry still give cause for concern.

Growth in the Chinese car market is supported by the emerging middle classes. This group of buyers is concentrated in the coastal towns. Buyers of cars for private use have played a key role in the growth rate over recent years. At the beginning of the 1990s, they were still an insignificant group of consumers. However, it must be remembered that only those with higher-level incomes (over 100,000 RMB annually) can buy a car for their private use.

The dominant trend in the 1990s was the increase in demand for small cars and the increasing significance of the price as a sales argument. Recent years have seen a price war, which will continue to escalate with China's membership of the WTO and a rising market share for imported vehicles. Major trends in the very dynamic Chinese car market are quantitative growth and price differentiation. For example, in 2001 20 new models were launched on the market, compared to only seven in the years between 1996 and 2000. Clearly, Chinese consumers want to express their status and individuality in what they buy.

The German and Japanese manufacturers are reacting to this development by targeting their model policy. A new premium market is developing with the new free enterprise culture in China which wants to be supplied with prestigious cars of technologically high quality. The Passat B5 and Audi A6 models are supporting this development as are the Accord (Honda) and the Buick (GM). Increasingly, the Chinese are buying expensive cars for their private use at a market price over RMB 250,000 (approximately EUR 34,000).

Customers wish to differentiate on more than just brands and features; auxiliary services such as customer care and financing are playing an increasingly important part in the decision to buy. More intensive customer orientation and heightened marketing activity are therefore an integral part of the China strategy pursued by German and Japanese manufacturers. The sales and service network is currently developing faster than the car market itself. For example, Volkswagen is planning to expand its share of almost 50 percent of the Chinese market on the basis of its new range of leasing and financing services.

The key trends and features expected in the Chinese car market for the coming years can be summarized as follows:

- Prospects for growth based on demand for cars for private use are good.
- Liberalization will continue and foreign car manufacturers will be more involved, forcing internationalization of the production structures.

- More models and greater orientation towards service will bring further differentiation to the range of products available.
- China will become increasingly important as a base for research and development in the car industry.
- Components supply will develop, becoming increasingly competitive on a global basis.
- Cost considerations will become less important than quality and technology.

Under the different conditions prevailing today, the old strategies of using out of date models and obsolete technology to penetrate the market which are unable to provide competitive standards of quality on an international level are no longer workable. New strategies such as those already implemented by Volkswagen and Toyota are required. Innovative products that are more in tune with what customers want demonstrate the correct way forward. Cars built to the most exacting technological standards will also find a buyer in the dynamic Chinese car market.

The need for strategic realignment must not be seen as a result of political or statutory impositions. On the contrary, orientation towards the Chinese consumer in the form of increasing model differentiation, stand alone developments specifically for the Chinese market and the establishment of service and financing products are a direct result of the changing social conditions in China brought about by liberalization and globalization. Market entry and penetration in the Chinese market with the best technology and the most successful models is the key to successful positioning. Companies arriving late on the scene, such as Toyota, need to use advanced technology to secure their brand image in China in the long-term.

The market penetration strategies pursued by European, American and Japanese business in China differ; one of the main reasons for this is the way they are implemented. Global car manufacturers have at their disposal many opportunities for differentiation in the practical realization of their market penetration strategy. Readiness to conform, creativity and flexibility, intercultural skills and sensitivity on the part of management and consideration of the social-cultural environment and the specific local requirements are basic conditions for the successful implementation of competitive market strategies in China. However, it is crucial that the companies secure a prominent market position with technology leadership (Spur 1998). Although this approach requires additional expense, closely associated with opening up the market and developing resources, the real benefit is in getting ahead of the competition with the opportunity to have available potentially powerful technology.

Car manufacturers with international operations now have the task of establishing creative strategic technology management in China with a

view to the Asia Pacific region. This should embrace all the functions of the company, starting from the core areas: production, the product, organization, human resources and distribution. Four major players must have a permanent role in the analysis: the company itself, the customers, the competition and the state. These four elements with their own interests, different motivations and goals form a dynamic whole. If statutory provisions, regional distinctiveness and historical structures are not taken into account, the competitiveness of a company in China can be at risk.

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