INTERNATIONALIZATION OF MANUFACTURING – OPPORTUNITIES AND THREATS FOR THE SLOVENIAN INDUSTRY AT THE FAR EAST

dr. Slavko Dolinšek
University of Primorska, Slovenia
slavko.dolinsek@fm-kp.si

Armand Faganel
University of Primorska, Slovenia
armand.faganel@fm-kp.si

Ranko Močnik
Iskra Avtoelektrika d.d., Šempeter
ranko.mocnik@iskra-ae.com

Abstract

Transformation and globalization of management needs innovative approach to the processes and excellence in business. We present a company that gained first ISO 9001 quality certificate in East Europe, which enabled them to realize incredible penetration on the demanding markets of West Europe. Fulfilment of quality standards, involving integral process of managing the company, was upgraded with the QS 9000 quality standard in 2000. Today the brand is internationally recognized, they export almost all production, mostly on the EU and USA markets. Dependent production companies are located in Iran, Belarus and China. Products from these units are in general destined for the local demand. In the paper we are addressing the ways to research the global environment for automotive sector, to merge the manufacturing and marketing strategies, analyze the opportunities to gain synergy from the presence on international markets, as well as how to gain from the globalization of resources and global marketing.

Key words: Internationalization, Manufacturing, Marketing strategy.

1 Introduction

After the independence of Slovenia due to the lost of traditional markets many of companies were pushed in a crisis. It became a matter of survival to change the whole strategy of the company – to search new international markets, which demanded different approaches. Transformation and globalization of management needs innovative approach to the processes and excellence in business. At this particular case, we have a company as the first with ISO 9001 quality certificate in East Europe, which enabled them to realize incredible penetration on the demanding markets of West Europe. Fulfilment of quality
standards, involving integral process of managing the company, was upgraded with the QS 9000 quality standard in 2000. Today the brand is internationally recognized, export represents 98% of whole sales, mostly on the EU and USA markets, with the Award for Business Excellence of Republic of Slovenia in year 2000.

Nowadays the company is regarded as an international company; it consists of domestic mother enterprise and foreign companies, from 50% to 100% in ownership. Dependent commercial companies develop distribution and sales abroad, mostly for the second upgrade parts to replenish the offer and after sales services. They attend essential distribution tasks: fiscal distribution and sales, transport and logistics, storing, communication, restore and preserve business contacts. Dependent production companies are located in Iran, Belarus and China. Products from these units are in general destined for the local demand.

In the paper we address the ways, how can the company research the global environment for automotive branch, merge the manufacturing and marketing strategies, analyze the opportunities to gain synergy from the presence on international markets, as well as how to gain from the globalization of resources and global marketing. Dependent companies are placed in different surroundings that differ very much between themselves. They operate in harmony with local environment and often do not consider the facts that occur in other areas. The conflict of interests has to be mediated from the central company, with the coordination and managing the flux of information. In order to contend with the challenges of globalisation, manufacturers have adopted strategies which attach priority to external growth and strengthen activities in which they were in a dominant position, seeking to achieve critical size. The growing pressure for on-site location reflects technological and organisational developments, such as CAD-CAM, just-in-time delivery (JIT) and sequenced production (JIS) which have become key features of the competitive position of the major OEM companies in the motor industry.

2 Automotive Industry

The automotive sector contributes from 4% to 8% of the GDP and accounts for 2% to 4% of the labour force in the Organisation for Economic Co-operation and Development (OECD) countries. Today, nearly 700 million motor vehicles are registered worldwide with over 550 million vehicles (75 passenger cars) registered in OECD countries. The automotive industry leads all other industries, including the computer sector, in R&D investment. Productivity in the automotive industry is above average (ACEA 2002, 12).

The global automotive market can be differentiated into three broad segments. These are (Barnes 2000, 2-3):

- Original Equipment Manufacture (OEM), which is comprised of passenger and commercial vehicle sales,
- Original Equipment Supply (OES), which is comprised of automotive parts and accessory sales through the OEMs, and finally
• the independent aftermarket, which is also comprised of automotive parts and accessory sales, but through independent retailers and repair shops, rather than the OEMs themselves.

The EU is the largest automotive production region in the world, accounting for 34% of global output. The automotive sector represents 3% of Europe’s GDP, and the manufacturing part of the industry comprises 7.5% of the manufacturing sector in the EU. A total of 10 million people are directly or indirectly employed in the automotive sector representing 7% of employment in the manufacturing sector in the EU. In 2002 the EU motor vehicle exports were worth €66.2 billion, more than double the €30.4 billion of imports for the same period (Rapid 2005).

Global manufacturing supports a global strategy that in turn focuses on which international markets to target, but also covers logistics, tactics and policy. Thereafter, the advantage of a global strategy lies in its implementation, via the alignment and integration of a network of resources and organisational units. To be more specific, the benefits may include reduction of transportation costs, avoidance of tariff and non-tariff barriers, access to low cost production factors, proximity to local markets, and, greater economies of scale compared to manufacturing in numerous countries, combined with not operating multiple plants below their full capacity. The stages that a corporation should work through to develop a business strategy, and derive a supporting manufacturing strategy, are: top management analyses the competition in terms of their products, markets, policies and channels of distribution, to spot what opportunities remain open. After that, the organisation’s strengths are aligned with market niches where it can gain an advantage, before determining precisely how to compete in them.

The main objectives of a manufacturing strategy follow, that is, to meet certain defined standards of performance pertaining to the four broad dimensions of cost, quality, delivery and flexibility. This leads to specific decisions regarding the product range and what innovations to pursue, what to make and what to buy, how many plants to run and what their capacities should be, where to locate them, the choice of process technology, how to exercise management control, and the appropriate organisational structure (Buxey 2000, 1001).

3 Iskra Avtoelektrika d.d.

Iskra Avtoelektrika is priding itself upon a 40 year tradition. It was established in the year 1960 when production of the first automotive electric products started. This was followed by a period of rapid growth caused by the fast increasing needs of the domestic automotive industry and by the company's simultaneous entry into foreign markets.

This rapid growth in production and sales was accompanied by development of other activities. Thus, the company of today masters completely and independently all stages of the business process, from research and development, production to marketing and sales.
Their own development capabilities have made it possible quickly to supplement and upgrade the range of products. From a small range of automotive electric products at the start a wide product range has been designed to cover the customers' needs in the fields of alternators and starter motors. Through development of DC motor drives Iskra Avtoelektrika has entered a completely new market segment, the production of DC motors and pulse controllers covering the needs of logistic equipment producers. Their own technological knowledge enables them to introduce to the market various components produced on the basis of selected technologies, tools, and special equipment.

From the very start, the company has devoted special attention to the quality of its products and services. Thus, it was the first company of its area to acquire the certificate based on ISO 9001 and QS-9000 standard later. After the independence of the Republic of Slovenia, the company was faced with grave problems, resulting from the loss overnight of almost all its domestic market. A prompt and decisive switch to concentrate on export markets has enabled the company to survive and overcome the crisis.

Today the majority of its sales are made on European and world markets. Iskra Avtoelektrika is one of the Slovenian largest industry enterprises intensifying the globalisation of its activities.

The corporation is supplying the world's leading automotive industry manufacturers, tractor and commercial vehicle producers, engine industry, and some other manufacturers with the most advanced starters and alternators.

Ignition system components, plastic parts, cold forged steel parts, aluminium castings, tools, and special machines and devices represent a significant proportion of total corporation sales as a result of their own research and development and technological knowledge. Iskra Avtoelektrika is intensively globalising its marketing activities. The markets of the USA, South America, East Europe, Japan, and some Middle and Far East markets are being added to the traditional West European markets (Iskra Avtoelektrika 2005, 2).

The basic strategy of Iskra Avtoelektrika is the strategy of growth that is based on the customers' satisfaction and globalisation. In addition to high quality at competitive prices and greater flexibility and responsiveness, they are going in the future to increase the developmental support to their customers and the added value by innovations. They are decided to ensure growth by accelerating the sales of new products to the existing and to new customers and by business globalisation. Maintaining a more favourable relation between price and quality will be ensured by providing high quality products and services with quality control in all processes and with business excellence, faster increase of productivity, efficiency and added value in Slovenia, in particular by developing and producing larger batches of up-to-date products using new technologies, by transferring the production of smaller batches of older products into the countries with a cheaper labour force (globalisation), by introducing less expensive supply sources and implementing support activities (outsourcing).
Maintaining greater flexibility and responsiveness will be ensured by business processes control, the implementation of the world class production principles in the process of fulfilling an order, efficient IT support that will be based upon the business information system SAP, and by flexible engagement of all sources. Increasing of the developmental support to the customers and innovativeness will be ensured by investing in people (education and training) and in the development and research infrastructure, by accelerated cooperation with the outer R&D institutions and creative cooperation of the employees, suppliers and customers (Iskra Avtoelektrika 2004, 26).

The brand of Iskra Avtoelektrika is already recognised on some traditional markets. They were supplying starters to ZMZ Lada factory in Russia for long years. With time it became incompetitive because of strategic shut down of production for personnel vehicles, and ZMZ found a local supplier, despite the lack of quality of their starters. One Chinese company copied Iskra's starter and tried to sell it to ZMZ. The quality was better as the one from Russian supplier, but they couldn't break trough. Then they agreed to sell it under Iskra's brand, and they successfully gained that business.

4 Strategies For Relocating Abroad

There are different reasons why manufacturers set up production facilities abroad in seeking new markets, beside the production costs. They can supply the regional market, especially distant markets in Asia and South America. Important reason is also to avoid trade restrictions and legal hurdles. Of course, low wage and production costs are an important factor in assuring the success of such enterprises (Ernst & Young 2004, 5).

The assemblers are becoming more involved in the specification of production; the role of first-tier supplier has become more complex. With technological advances, the systems are becoming more complicated, especially with the incorporation of new materials and electronics. Some components can be produced at centralised locations and shipped to widely spread assembly sites. However, logistics, cost and protectionism make local or regional productions of many items a necessity. In these cases, new entrants to the emerging auto markets are likely to encourage follow sourcing by their preferred suppliers (Humphrey 1999, 4-6).

These factors - globalisation, service orientation, knowledge intensity, and responding to environmental concerns - highlight the importance of undertaking research in the area of manufacturing, not just in Europe, but also on a global level. Manufacturing is a global industry. The way that it is structured, with both supplier and customers located across several time zones, demands a more global approach to research (Kidd 2005, 3-4).

Customer focus in a highly competitive industry where a buyer’s market exists is achieved by integrating the customer into the process of design and development. The traditional approach to innovation in the automotive industry is based on a development and banking method, so that innovations can be pulled off the shell when needed. With the increasing reliance on outsourcing, it will be more and more expected to take over this development
and banking activity with no guarantee that the developments will ever be used (Kidd 1997).

Research made from Orr & Sohal (1999, 360) identified three common strategies/practices which were considered to be necessary for achieving success as global manufacturers amongst the four German companies studied. These practices are: maintaining a focus on core competencies and technological capabilities; maintaining a continuing dialogue between the R&D function at headquarters and the overseas operating units; and providing extensive education and training for all employees in the technologies to be adopted.

The biggest potential market for automotive industry in this moment is Chinese, and Iskra Avtoelektrika is already present there with two companies. Many observers say Russia may soon follow China as the auto industry’s next big new market. Demand for vehicles is rising quickly, but unique challenges face OEMs and suppliers seeking to enter the Russian market. There are only about 30 foreign auto suppliers active there currently. Most of them are happy with the industry growth, but they’d like to see more foreign OEMs enter the market. There is an immediate potential for midsize foreign suppliers with the flexibility to find markets quickly. There is demand right now for their components, and the demand will increase as the Russian auto industry addresses quality issues (Tremblay 2003, 3).

Besides the four domestic, Iskra Avtoelektrika has several production companies placed abroad: Iskra AE komponents d.o.o., Bosnia and Herzegovina; IskRa o.o.o., Republic of Belarus; Jie Hua Iskra Mechanical-Electrical Co., Ltd., and Fawer Ltd., China; Iskra do Brasil Ltda., Brasil. There is also one associated production company: Iskra Autoelectric Iran, JVC, Iran. In the group they have also some trading companies: Iskra Autoelectrique, S.A., France; Iskra Autel, S.r.l., Italy; Iskra Deutschland GmbH, Germany; Iskra UK, Ltd., Great Britain; Iskra AE, Inc., USA, and Istra Autoélectrique Spain (affiliated company of Iskra Autoelectrique, S.A., France), Spain.

Purpose of production establishment abroad lies in the strategies to get nearer to the customers, to lower the production costs and to increase competitiveness. The only exception is the factory in Bosnia and Herzegovina, which is specialized for the production of components only for the needs of Mother Company in Slovenia, and not for final products. Because of relative proximity and lower production costs it was meaningful to transfer labour intensive operations to that location.

Production is fully on the run in Iran, Belarus, and Bosnia and Herzegovina and at Jiehua Iskra Ltd. in China. Company in Brasil is still in the phase of equipment before the start of the production. Company Fawer Iskra in China is the newest and just established. Reason for the establishment of two companies in China is to be sought in the constipation of Chinese market, because of different interests of diverse automotive producers and political influence of local authorities. Accessibility to wider range of customers has proven to be impossible, through one company only, because of the strength of different clans.
Companies are run by Slovenian managers; there is also a permanent strong presence of technical personnel from Iskra Avtoelektrika.

4.1 Chinese Market

The famous and many times misused word - globalisation represents the realisation of trans-national reorganisation of production, which has become a daily matter in several industries (e.g. automotive, pharmaceuticals), and its potential feasibility (Speidel 2000, 4). Burdened by excess capacity and increasingly saturated home markets, Western automotive companies are rushing to invest in China’s car industry. Representing approximately one fifth of the world’s population, the potential of the Chinese market is almost unlimited and is likely to be fought over intensively. The attraction is obvious: Chinese vehicle sales have grown at annual rate of more than 22% over the last 10 years, making China easily the fastest growing market in the world. Sales rose from just 377,000 in 1996 to 2,4 in 2004 as China’s economic boom led to a dramatic rise of Chinese able to afford car ownership (Ernst & Young 2005a, 1). Nevertheless, many foreign automotive companies are finding Chinese market is a hard nut to knack. After several years of very rapid growth, sales have started to slow, putting pressure on margins, and raising fears of excess capacity, resulting in retreat of some actors from this market (Ernst & Young 2005a, 1).

But the Chinese government wants to develop an independent automotive industry, capable of developing its own technology. This represents an opportunity for the producers of automotive parts, prepared to move their know-how and technology to China, in order to support their home automotive industry. They are limited in exporting to global automotive sector because of low quality components and the unsuitable offer for the western taste. There is also a bad reputation of China in the field of intellectual property infringement. To acquire necessary technical capabilities, Chinese companies can use several ways. They can form joint ventures with foreign automotive companies, foreign component manufacturers will step up their investment in China in response to rising production volumes, this will accelerate the development of a competitive parts industry. Chinese companies can also buy foreign companies to access skills and technology. And of course they will dedicate substantial resources to developing their own technology (Ernst & Young 2005a, 5-8).

China is already the forth largest global producer of cars and light trucks, and the projections are that this will triple over the next ten years. The Chinese government regards the automotive sector as vital to economic growth and is determined that China will develop its own brands and vehicles, in direct competition to established brands (Ernst & Young 2005b, 2).

Jiehua Iskra Ltd. produces starters and alternators for Chinese vehicles and was established on the initiative of Chinese partner that was seeking for suitable foreign company to modernize their production programme. Partner was a huge producer of auto electrics, selling its products to a closed circle of customers, but he didn’t mach the new demands to renovate their own products. Iskra Avtoelektrika decided to enter into this joint venture for some reasons:
- possibility to reach the customers on an entirely new market,
- development of local suppliers, in order to import low cost components to Slovenia,
- getting close with production to Iskra’s traditional customers from EU and USA that are moving their own production to China,
- possibility of extend the production on other Iskra’s production programmes.

Fawer Iskra Ltd. is Daughter Company of the group FAW (First Automotive Works), which is the oldest, biggest, most important and probably politically one of the most reserved Chinese companies. FAW is in state ownership and has the longest tradition of trucks and bus production in China. FAW wanted to gain modern auto electric products and also to become independent from local suppliers through the establishment of its own production capacities.

Strengths of Iskra Avtoelektrika on Chinese market are the trustful and quality products, good supplier chains, cheap labour force, and assured market. Weaknesses are relatively unknown customers and territorial confinement for Jiehua Iskra, and inexperienced partner in the producing of auto electrics for Fawer. Among opportunities we can align big sales potential, great possibilities to cut the costs with the localization of production, and huge export potential. Threats to be considered are extreme macro economical changes in strong influence of politics. There are already some signs that it is becoming difficult to find skilled and educated workers, who want more appropriate wages.

4.2 Iranian Market

Iran’s automotive industry is the country’s fastest growing industry. Between 1995 and 2000, its average annual growth rate was 27.2%, which is 5.5 times that of the country’s average industrial growth as a whole and 7 times that of the GDP increase. Currently, Iran has a population of 64 million, almost one percent of the world’s total, but its share of the total global car production is a little over 0.6%. This progress has been limited to assembly, parts production and design (Atieh Bahar 2002, 1). The Iranian automotive industry first developed in the 1960s with the arrival of foreign vehicle manufacturers. Today, the industry is growing year-on-year and has become one of Iran’s key economic activities, after oil production. Fourteen vehicle manufacturers and 1,200 parts suppliers employ 500,000 people directly or indirectly (PSA – Peugeot Citroen, 2005).

This market is almost unique globally in that it is characterised by state ownership and intervention, and is dominated by old car models. Imports are restricted by the 130% import tariff imposed in 1993, and local production is encouraged by incentives for companies to both manufacture locally and to use a large amount of local content. Iran’s unique geographical position, sharing borders with 14 other countries, gives it a great opportunity to manufacture cars for export as well as for the domestic market. Foreign companies are investing in Iranian partnership for precisely this reason, and it is in fact written into agreements that they must export a certain percentage of their output (GEM 2005, 1-2).
Given its geographical vastness, population and energy resources, Iran needs to overhaul and equip its transport fleet. The country is already regarded as the largest auto market in the entire Middle East region. But political challenges remain as an obstacle in the way of efforts by the national auto industry to absorb foreign investments and eventually enter international competition. Hence, other mechanisms have to be worked out for tackling challenges facing the car industry. One of the key solutions would be to upgrade the quality of domestic cars. This would call for establishing joint ventures with major international carmakers (Alireza 2005, 6).

Whilst the law does not stipulate a limit on the share of foreign capital in a venture it has previously been accepted that a foreign share exceeding 49% might be construed as violating the constitution. However with the need for foreign capital becoming more urgent the Organisation for Investment, Economic and Technical Assistance of Iran is emphatically denying that there is a limit on a foreign equity. Investment must not entail any monopoly of the granting of special privileges. In exceptional circumstances, foreign companies are allowed to break the 49% rule. The law on establishing a branch office in Iran is unclear. In November 1997, the Iranian Parliament passed a law designed to facilitate the opening of branch offices in Iran. However, to date, the executive orders which outlines what steps are necessary to open a branch office have yet to be published. The old law on establishing a branch office is something of a 'Catch 22' situation. It states that a branch office cannot be established unless the foreign company has a contract establishing a business relationship with an Iranian governmental organisation (ministry, company, municipality etc.). However, a separate law states that a service contract can only be awarded to a company, which already has an office in Iran. Companies seeking to find their way through this legal jungle have found it time-consuming and expensive. The key to success is to have the backing of one of the government ministries, e.g. the Ministry of Industry.

Foreign investors' rights are protected by the "Iranian Attraction and Protection of Foreign Investments Act", originally enacted in 1955 (followed by the relevant Executive Regulations in 1956) and re-enacted in 1992. The Act has hardly been applied other than with respect to compensation paid (under Article 14 of the Regulations) to certain foreigners whose holdings have been nationalised (UK Trade & Investment).

Iskra Autoelectric is already present in Iran for a period of 25 years. After the Islamic revolution and the exile of western capital, Iskra got an exceptional opportunity (in that period friendly Yugoslavia fr Iran) for direct supplies of products for personal vehicles. Due to development of required applications, good quality, relatively favourable prices, and regular supplies, they quickly got the renown of distinguished supplier. Because of the politics of local industry development, it became necessarily to think about the placement of the local production. Such a decision proved to be correct, as Iskra succeeded to maintain and increase their market share. In the production programme of starters and alternators, they cover the needs for about 60% of personnel vehicles.
The most important customers are both biggest producers of cars, Irankhodro and Saipa. Opportunities on Iranian market are quick growth of automotive industry, good mix of products, localization of production, recognized brand, big potential for second tier assembly. Threats could be the instable macroeconomic environment, increasing competition, bad payment discipline, and weak protection of local production, unfavourable tax legislation, and weak protection for foreign investments. Opportunities are to be sought in deep localization of production, support of mother company Iskra Avtoelektrika, commitment to business excellence, and customer communication. Possible threats are financial sources, weak local supplier chains, underdevelopment of after sales net, bad planning, huge fluctuation, and shortage of expert technical staff.

5 Discussion

Past and present strategically orientation Iskra Avtoelektrika was the high quality and technical performance products based on long-term relationships with customers, their high requirements and expectations and our longstanding experience in development and production. High quality operating reliability are assured by optimising the design of products for use in different operating conditions and controlling the quality through the production process using ISO 9001 and QS-9000 standards. We can consider such a strategic as a basic precondition to enter into the world automotive market and to become reliable supplier and world class manufacturer. Consequently the customer, German manufacturer of diesel engines Deutz AG, gave them the award »Supplier of the Year 2004«. This award was to promote our extraordinary achievements on the common project regarding alternators.

Process of globalisation and strategic alliances in the world forced Iskra Avtoelektrika to enter the specialization of programmes and to export the manufacturing to the countries with lower labour price. Average annual growth of GDP in Europe began to slow down, so did the demand of customers in EU. Incensement of fuel and raw materials prices caused the growth of costs. Some of important customers from EU and USA moved their production to China, so Iskra Avtoelektrika had to follow them.

With the cooperation between Fawer, the biggest manufacturer of passenger and freight vehicles in China, Iskra Avtoelektrika entered into agreement about founding a new joint venture. Fawer chose Iskra Avtoelektrika for a partner who can and will ensure the necessary knowledge, R&D and quality products for the common company. On the other side, Iskra Avtoelektrika chose Fawer for its market position advantage and excellent relationships with starter motor and alternator customers within the FAW Group. The established JV combines the best attributes of both partners. However, based on experiences from different global companies, establishing joint venture in Chinese, a proper strategy considering the transfer knowledge and technology should be established. The basis strategic orientation is that the company will strength and sustains the global position in the world market.
6 Conclusion

We have established that Iskra Avtoelektrika must follow the demands of its buyers, who are looking for more appropriate and cheaper locations to move their production to. Thereby we presented a sort of policy where a company conquers a new market and increases its market share, whereby it eventually enforces its market position. The company must bring the production closer to its end consumers, increase the number of production locations abroad, broaden marketing channels, develop supplier chains and, above all, develop new products and undertake new technologies. Thereby it should use cheaper labor force, as the cost of labor in some foreign countries is even up to ten times lower than in Slovenia.

The choice of foreign partners solves the problem of being in an unfamiliar business environment; such a partner has established distribution channels, is well-known on the local market and easily manages business processes there. Advantages for the foreign partner are, among other things: the acquisition of a quality product, modern technology, necessary know-how, the goodwill of Iskra who is an established world brand and access to the experience of Slovene experts.

Special emphasis was devoted to the meaning of the synergy effects of global functioning, which are still poorly developed. Here lie big opportunities which could help to bring about increased sales and a rise in competitiveness. These functions must be supported by using the possibilities of development and the use of the trademark, the meaning of which has also been substantiated.

The stated globalization policy is undoubtedly correct and we advise its further implementation. This is also demanded by the buyers who often reminded Iskra that “You are not global enough for our needs”. In its struggle to survive and continue the development of the entire group, Iskra Avtoelektrika will therefore constantly have to be on the lookout for new international opportunities, plan global expansions and take advantage of the synergy effects resulting from this.

References:


