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Change in Competitive Environment and Emerging Challenges for Indian Automobile Industry

Management

KEYWORDS :

Dr. B. R. Patil

Associate Professor,
Bharati Vidyapeeth University Pune, Institute of Management Kolhapur.

1. Globalization and its growth

The *Encarta Encyclopedia* defines globalization as "emergence of a global society in which economic, political, environmental, and cultural events in one part of the world quickly come to have significance for people in other parts of the world". This paper looks at the same meaning and aims to bring out the significance of globalization in the Indian automobile industry.

Global cooperation has always been the need for countries all over the world and can be compared to the need of a society for a man. The last century has shown sufficient proof that countries open to cooperation have grown at rates higher than countries which operated in a closed economy. The last century saw the death of imperialism and henceforth, the emergence of many new sovereign nations. Most of these nations became independent after the Second World War, when the world was already divided into two blocks- Communist and Capitalist, which were on a cold war. These nations had to join either of the two blocks to safeguard themselves. Instead, these countries formed a Third block called the Non-Aligned Movement (NAM). The international institutions like GATT acted as coordinators for trade cooperation between these blocks. During this period, most of the Third Block countries adopted a closed economy to safeguard the local industries against the MNCs from the developed countries (Yusuf, 2001).

The last two decades have seen a lot of change in the political, economic, and social scenario of the world. The dismantling of Soviet Union led to the end of the Cold War. Many of the developing economies started opening up their countries to foreign MNCs due to various forces such as international institutions (GATT/WTO and the Basle Accords), UN agencies and TNCs (Yusuf, 2001). Due to these developments, some of the developing countries posted GDP growth rates far greater that the developed countries. More and more countries joined the bandwagon in recent years, making globalization a phenomenon throughout the world.

This trend seems to continue in the near future too, but there is a debate from some economists that governments of some countries, especially the developed ones may be wary of globalization above a certain extent in the near future (Yusuf, 2001). The domination of transnational corporations in production and trade has been a concern for these governments and they are now wary of TNCs using globalization to their advantage rather than the development of their home countries.

2. Globalization in the automotive industry

The automobile industry is one of the most important engines driving the world economy. Hence, it was imperative for the industry to be subject to globalization in the western world. Need for high resource commitments, the industry's nature of scale sensitivity, the current stage in the industry's life-cycle, increasing competition and decreasing profit margins have forced automobile manufacturers to merge, form alliances, or co-operate in the fields of R&D, production, marketing, and distribution. The formation of global oligopolies first by regional consolidation and then on a global scale has been evident from the spate of mergers and strategic alliances.

Although there is a long history of foreign investment and trade in the automotive sector, globalization today appears to be qualitatively different than even a few decades ago. These differences represent a fundamentally new system of cross-border production and mark a new stage in globalization in the automotive sector.

2.1 Early Development

Through the early 1970s, automakers established foreign production sites primarily in response to incentives such as tariffs and in some cases, regulatory requirements like local content rules. In short, foreign investment was the price for gaining access to both established and emerging markets. However, with the saturation of consumer markets in advanced economies and the rise of Japanese firms, competition in the industry intensified and foreign investment became increasingly tied to cost-cutting strategies that led to organizations trying new and low-cost manufacturing locations in Asia (Chung, 1997).

2.2 Future implications

If liberalization trends continue and/or once promising consumer markets disappear in the wake of the Asian crisis, foreign investment could become even more closely tied to rationalization strategies and regional production arrangements could continue to supplant national structures. Because these changes represent a fundamental break with internationalization strategies of previous periods, current patterns of investment and different set of assumptions about the role of globalization in corporate strategy.

3. Effects of Globalization

At a researchers' conference at MIT in 1999, researchers identified 6 areas, which had been affected due to globalization in the automotive industry. The six areas are as follows:

3.1 Technology

Technology has been affected by more ways than one due to globalization. The oil crises of 1972/73 and 79/80 aided the Japanese foray into the North American market, turning their smaller, fuel-efficient cars into bestsellers in various segments (Wolf, Adamse). The Japanese management techniques of quality management and lean production, which helped them to improve the productivity, became a household name in this era. Soon enough, even the big three firms started to follow these techniques, but were slower in their approach.

There is a marked difference between auto firms of different countries in the way they transfer technology to their manufacturing plants across the world. While the Japanese firms often replicate their domestic manufacturing plants, the Germans and Americans often experiment in new mar-

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kets by putting up newer and innovative manufacturing plants (Lynch, 1999).

There is also a local element in the way technology is adopted in foreign countries. The requirement to meet the local standards as well as being price-competitive makes firms to just meet the supplier standards rather than exceeding local standards. This often makes some foreign sites unviable to export to other countries (Tewari, 1999).

3.2 Market Homogeneity and Consumer Preferences

Consumer preferences have always been considered to be an entry barrier by firms for expansion into foreign countries. The 1960s and 1970s saw a great deal of difference in terms of consumer preferences in different countries. But, since then, times have changed and there has been an increasing homogeneity in terms of consumer preferences.

Even today, the level of homogeneity in customer preferences affects the level of globalization in the auto industry. Greater homogeneity among customers helps the firm in mass production and achieving economies of scale. There have been suggestions that the relationship between consumer preferences, product design, and global production patterns is complex in part because of an unpredictable relationship between consumer preferences and product design (Fujimoto, 1999).

It has also been observed that firm strategy, history, and philosophy also shape product design and approaches to serving local markets. There have been examples of a difference in philosophy of American and Japanese organizations. While the Americans see globalization as an opportunity to achieve economies-of-scale, the Japanese are keener to cater to the local markets according to the customer needs and preferences (Fujimoto, 1999).

3.3 Supply chain trends

The supply sector has a lot of influence over the development of any manufacturing sector in a country. In the automotive industry, it has become imperative for the firms to have suppliers in the host countries, to reduce the vulnerability due to changes in international environment. Of late, the role of suppliers has been growing as they take on bigger responsibilities in design, manufacturing and logistics (Lynch, 1999).

Automotive manufacturers have also reduced their supply base considerably from about 2000 to 200. These developments have made auto component makers indispensable for the automotive firms. Some of these auto component firms have consolidated their position by acquiring smaller companies. The auto manufacturers are now using their power to suppliers to follow them wherever they expand their operations (Barnes, 1999).

Another contrasting trend that has been observed is the growth of the supplier firms in some of the host countries, like in India or China. There have been observations that locally owned suppliers are more effective in transmitting positive benefits for the automotive firms (Soto, 1999)

3.4 Impact on home countries

Much of the impact of globalization on the home countries has been focused on the threat of loss of employment opportunities for low-skilled labor. Inspite of the political and social attention that this aspect of globalization attracts, researchers agree that not much relevant research has been done on this aspect (Lynch, 1999).

3.5 Impact on host countries

There are two distinct types of host countries according to researchers: Peripheral (or Type I) and stand-alone (or Type II). While the peripheral countries includes Mexico and east-European countries, which are characterized by their "increasing integration into the regional spaces of the Triad economies" while the stand-alone countries include India and China where production is "oriented primarily towards the domestic market." [Definitions have been taken from Humphrey memo, "Memo for MIT/Industrial Performance Centre Meeting on Globalization and the Auto Industry," October 1998. As Humphrey pointed out, his definitions of Type I and Type II markets mirror Sturgeon's distinction between BEMs (Big Emerging Markets) and PLEMAs (Peripheral to Large Existing Market Areas)]

While the fate of peripheral countries will vary depending on the demand in the Triad economies, the growth of an automotive firm in the stand-alone countries will depend on the focus and commitment of the firms, as these countries have a considerable demand for automobiles.

The capacity, confidence, and ideology of the host country governments also influence the effects of globalization in the country. For example, the attitude of governments in Brazil and China are completely in contrast with one another. While the Brazilian government was skeptic in its approach to globalization, the Chinese government has been willing and able to use its power to shape the foreign investment in China, including the types of technology that can be used. In India, foreign investment regulations have been relaxed, including the type of technology that can be used, which shows a shift to a less interventionist role of the government (Humphrey, 1999).

3.6 Use of Cross-sector studies

It has been unanimously agreed by the researchers that globalization as a force in the international economy is unlikely to disappear. Hence, it has become important to study the social and economic aspects of globalization with reference to the host countries. As a part of that, there is a need to study the relationship between different manufacturing sectors and how they affect each other.

Three aspects stand out in the cross-industry studies: inter-organizational learning, organization of production, and product design. The first one stresses on the type of relationships that firms share in different industries and how these types of relationships can be started in the automotive sector. The second aspect covers the aspects of de-verticalization, which can be observed in the textile and pharmaceuticals industry. The third aspect of product design and marketing tries to look at the innovative ways of marketing done by firms, which concentrate only on the design and marketing, while outsourcing their manufacturing operations (Gereffi, 1999).

4. Global Industry Trends

Given the above effects of globalization, there is a need to understand the current global trends in the auto industry, before studying the effects of globalization on Indian auto industry.

4.1 The stagnation

The auto industry is a $1.2 trillion industry and is dominated by few global competitors, who have their presence in virtually, every part of the world. The industry has been going through dramatic consolidations since 1950. Today, five auto-makers have more than half of the global market. But, the industry lags in comparison to other manufacturing sectors in a variety of parameters. For example, it offers one of the lowest returns to its shareholders, has one of the lowest profitability levels, and has seen slower growth rates than most of the other manufacturing sectors. Average profit margins have declined from 20% or more in its youth in the 1920s to around 10% in the 1960s and less than 5% now, and some volume carmakers have actually been losing money. Despite its importance to modern economies, the industry has lost its value in the equity markets.

Although the global firms have managed to capture market shares in most of the developing countries, there are some local players still having decent market shares in these countries. These players bank on their local production facilities, sourcing and distribution capabilities and ability to source technology by forming partnerships with global players. However, with the global economies of scale that these global players enjoy, the future of the local players is uncertain.

4.2 Truly Global?

Cross-sector studies done by the McKinsey Global Institute show that the automobile sector is less global compared to apparel and consumer electronics. The rate of growth is also much slower than these sectors. As the industry matures, there is a need to approach developing countries as low-cost production sites as well as newer markets with higher demand. The industry is yet to balance these two necessities that led to the globalization of auto industry. The expansion to the developing nations has been really slow and has been in the case of highly non core activities and low technology components.

The industry is also has huge over-capacity due to inefficiencies in production. Global players haven't been able to balance supply and demand. They have also been hurt by government policies requiring them to produce locally in areas of low demand, resulting in the establishment of sub-optimal manufacturing plants. (McKinsey Global Institute, 2003)

5. Impact on Indian automotive firms

The present-day auto industries of India were first developed within the broader context of import substitution in the 1950s. High tariffs, quantitative restrictions and local content regulations were used to create a local vehicle industry. Access to the local market could only be achieved through local production. In India, the development of the motor industry was restricted. The distinctive feature of the auto industry in India was that in line with the overall policy of state intervention in the economy, vehicle production was closely regulated by an industrial licensing system that controlled output, models and prices. The government prioritized production of trucks, tractors and buses, while production of cars was restricted well below the level of demand.

Between 1971 and 1980 an average of just 45,000 cars and jeeps were produced each year (ACMA, 1997). The cars were mostly built by two local companies, Premier Auto and Hindustan Motors. However, the Indian market was transformed after 1983 by a relaxation of the licensing policy and the entry of Maruti Udyog Ltd (MUL) into the car market. This was a joint venture between the Indian government and the Japanese auto company, Suzuki. Production of cars and jeeps jumped to over 100,000 units by 1985 and reached 200,000 units in 1989.

5.1 Reforms in the sector

The far reaching economic reforms undertaken by the Indian Government since 1991 have unleashed the growth potential of the Indian economy. These reforms, particularly aimed at deregulating the country and attracting foreign investment have made India one of the rapidly growing nations in the world.

Before these reforms, the Indian government's closed-door policy had restricted the growth of the Indian motor industry. The Indian government promoted the production of buses, trucks, and tractors, which meant that production of cars and jeeps was well under demand. Cars production was mostly dominated by two companies: Premier Auto and Hindustan Motors (Humphrey, 1999). The case was pretty similar with two-wheelers too, where the production was way below the actual demand. The production of scooters was almost monopolized by Bajaj Auto, and the motor-cycles market was dominated by Escorts, Yezdi and Enfield (Ramachandran, 1996). Things changed in mid-1980s when the government started allowing joint ventures in motor vehicle production. But, things did not improve due to the high import levies on auto components. During this phase, Japanese companies like Suzuki, Honda, and Yamaha entered the Indian market by establishing JVs with Indian manufacturers.

The second-generation reforms in 1990s helped to develop a level-playing field, which attracted the MNCs to come to India and set up their production facilities. More MNCs like General Motors, Hyundai, Ford, Mercedes-Benz, Daewoo, and Toyota started entering the Indian market, seeing the opportunity to gain market share in an emerging market. TELCO (now, Tata Motors) also seized the opportunity and started manufacturing SUVs and cars from mid-1990s. Volkswagen, Proton, Nissan and Volvo are among other global auto majors that are seriously evaluating the Indian option.

These developments have turned the Indian automotive market into one of the most competitive markets in the world. The only Indian firms that have been able to stand up to the challenge of the MNCs are Tata Motors and Mahindra & Mahindra, which specializes in MUVs and SUVs. Maruti is now being controlled by Suzuki and is operating as its subsidiary.

5.2 Growth in foreign investment

The Foreign Direct Investment (FDI) in the Indian automobile industry has helped the sector in more ways than one. First, since the auto sector is capital intensive, FDI contributes capital for setting up industries. Second, they can help their Indian partners by sharing their proprietary technology and R&D capabilities.

The automotive Industry in India has been working in terms of the dynamics of an open market. Many joint ventures have been set up in India with foreign collaboration, both technical and financial with leading global manufacturers. Also a very large number of joint ventures have been set up in the auto-components sector and the pace is expected to pick up even further. In this process, the Government of India has been keen to provide a suitable economic and business environment conducive to the success of the established and prospective foreign partnership ventures.

The entry of foreign players has created a tremendous impact on the Indian auto industry. Along with contributing capital, technology, and managerial best practices, the entry of foreign players resulted in intense competition, which led to exit of low productivity players and pushed incumbents to increase productivity drastically.

This made it possible for output and labor productivity to soar. Prices have fallen and, even as the industry has consolidated, employment levels have held steady thanks to robust demand. Nonetheless, with tariffs on finished cars still relatively high, automakers remain sheltered from global competition and the sector is less efficient than it could be. The small cars segment has seen the biggest change after globalization due to rapid increase in the number of companies and improvement in productivity by the existing companisegment hasn't got a respectable demand still, and companies are suffering due to massive over-capacity and diseconomies of scale.

5.3 Recent developments

Looking at the pros and cons of the Indian auto manufacturers, they have advantages in the kind of the sales and distribution network they have. They also have built up a strong supplier base, which gives them the cost and delivery advantages (Krishnan, 1996). Looking at the negative side, the Indian industry hasn't still proved its capability in product design. In recent years, there have been some indigenous products launched by Tata Motors and M&M. TVS Motors has launched an indigenous motorcycle completely designed and developed in-house.

6. Sector Overview

The automobile sector in India comprises of all vehicles, including 2-3 wheelers, passenger cars and multi-utility vehicles, light and heavy commercial vehicles, and the allied engineering sector comprises largely of the auto components sector. Agricultural tractors and Earth Moving Machinery is an associated sector, which keeps the wheels of the agrarian economy moving. It is heavily reliant and aligned to the automobile and allied engineering sector and plays a significant role in India. The Automobile and Allied Engineering Industry may alternatively be termed the automotive industry.

The industry is characterized by a very high percentage (75%) of production in the 2/3 wheeler sector. India ranks as the largest manufacturer of motorcycles and second largest in manufacturing of scooters in the world. India today is also the second largest manufacturer of tractors, as well. The industry has intense forward and backward integration. (ACMA, 2004)

The auto sector of India is one of the fastest growing in the world (CAGR of 16% for number of units produced) producing around half a million units per year (1.6% of the world's production) with sales of around $5 billion (ACMA, 2004). The small cars segment forms the largest segment of the Indian industry contributing around 85% of the sales. Exports form a minor part of the sales, but they have grown steadily in the past few years going from a perfect zero in 1983 to around 10% now.

The large volumes of investment including foreign direct investment in the automobile manufacturing ventures and technical collaboration are propelling a quantum jump in up gradation of technology. Domestic demand for passenger cars and multi utility vehicles is projected at 800,000 cars by 2005. With increased production and capacity creation in the passenger car sector, foreign countries may use India as an export hub. This tremendous growth is likewise triggering growth of the auto-component segment.

Automobile plants in India are often sub-optimal in their scale or their productivity or both, leading to lower productivity. This is mostly due to the volatile demand that has been seen often in the Indian automobile market. Surprisingly enough, the productivity of MNCs in India has been pretty low compared with established players like Maruti, largely due to the lack of scale and poor utilization. The intense competition, which has resulted due to globalization, has forced companies to increase their productivity levels rapidly.

Globalization has also resulted in spillover effect over the suppliers of auto components. The auto component industry has more than tripled in size in the last decade, as sales boomed and auto manufacturers have started outsourcing many non-core components of production. Entry of global auto players led to their supplier's entry into India. The focus of automakers on products with quality and reliability created pressure on component manufacturers to produce good-quality and reliable products. (McKinsey Global Institute, 2003)

Auto assemblers in India have found in the recent past that poor infrastructure is a major obstacle in implementing lean and just-in-time production. As a result, assemblers are devising elaborate and often highly innovative solutions to solve infrastructure problems not only at their own assembly plants but also those at their supplier plants. To offset infrastructure constraints, assemblers are altering and adapting some of the standard competitive strategies that they use in their home countries. For example, assemblers like Maruti-Suzuki, Ford, and Hyundai are requiring their component suppliers to move within a radius of about 80 km from their plants to overcome freight transportation constraints that prevent implementation of just-in-time/ lean production systems. To counter power problems, Maruti-Suzuki, India's largest carmaker, has invested in a gas turbine power plant and is hooking up its component suppliers to this system. Overall, infrastructure constraints are strongly influencing assemblers' sourcing strategies, supplier selection criteria, assembler-supplier relations, and the emerging geography of production in the Indian auto industry.

The present penetration level of automobiles in India is pretty low compared to countries with similar levels of GDP per capita like Pakistan, Nigeria, etc. (MGI, 2001) With India registering higher GDP growth rates in the recent past, analysts and academicians are optimistic about the future of automobile industry in India. Hence, the outlook for future is positive and there are clear indications that the growth rate of around 15% will be achieved in the future.

7. Conclusion - Challenges ahead for Indian manufacturers

Disaggregation of the automobile value chain has led to increased competition, declining margins, increasing disadvantages of being subscale and emergence of a certain set of new opportunities for the Indian firms. However, there are some concerns and challenges, which have to be addressed by the domestic companies.

The Indian industry's main competitive edge has been, and is its manpower. The vast availability of low cost-highly skilled work force in abundance has helped Indian companies to compete with the global players cheaper than the developed countries. However, with the entry of foreign players and establishment of their manufacturing plants, this advantage seems to be diminishing. In such a situation, the challenge for Indian manufacturers now will be going up the value chain in the areas of production and technology.

- The Indian auto firms lack the capability of new product development dynamically. There have been indigenous developments in the recent years, but the Indian firms still lack the capacity to come out with newer models as frequently as their global competitors.
- Indian firms have the advantage of a good sourcing and distribution base in the country, but this advantage isn't supported by the customer service levels that are offered by the global players.
- Finally, the government also has to play its role in the development of the automobile industry in India. The present state of the road and highway infrastructure in the country doesn't augur well with the high growth expectations in the future. Traffic and road congestion problems, bad road infrastructure and high rate of accidents have acted as roadblock for the growth of the automobile industry. Hence, it is imperative that the government takes actions to build good road and highway infrastructure.

There are certain choices that could decide the future existence of the Indian auto firms – choosing an ally or to stay alone and also choice of segment of the value chain to focus on.

However there are certain imperatives for all the firms of Indian auto industry:

- Increase the quality consciousness of the workers through training programs.
- Leverage the competence of Indian IT firms to drive down transaction costs and time-to-market
- They should also invest more in R&D than the meager expenditure they are incurring at present. This would help the Indian companies to develop indigenous products for the Indian consumer. The Indian firms could look at joint ventures for adoption of technology from MNCs (Krishnan, 1996).
- The Indian companies have to adopt newer methods of production like lean production and Just-in-Time.
- Move up the value chain in areas of production and technology.
- Utilize existing relationships with global auto-makers to achieve global recognition.
- Learn from strategic alliances formed with other firms worldwide – utilize the exposure to different companies with complementary capabilities and a mutual interest in cooperation.

It is a really humbling exercise to ascertain Indian automobile industry's position in the global competitiveness league – far below the developed countries and many developing countries. Hence it is time for the Indian automobile sector as a whole to hone its competitive edge. They would have to develop new competencies and radically overhaul existing ones if required, and companies that view their international expansion as an opportunity to learn would find it perfectly suitable to do so.

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