**Asia-Pacific Research and Training Network on Trade**
**Working Paper Series, No. 37, July 2007**

# Changing Features of the Automobile Industry in Asia: Comparison of Production, Trade and Market Structure in Selected Countries

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# *Executive Summary*

The global automotive industry, increasingly characterized by global mergers and relocation of production centers to emerging developing economies, is in the grips of a global price-war. The industry is subject to imperfect competition which has resulted in too much of everything — too much capacity, too many competitors and too much redundancy and overlap. The industry is concerned with consumer demands for styling, safety, and comfort; and with labor relations and manufacturing efficiency. In this context, the study examines the growth patterns, changes in ownership structures, trade patterns and role of governments of selected Asian countries (viz. China, India, Indonesia and Thailand) in the automobile sector.

Thailand is a major automobile exporting country from Asia. The sector is mainly driven by Japanese FDI. Chinese automobile sector is growing very fast and is poised to make its dent in the international trade arena very soon, with a particularly strong position in the component sector. India, on the other hand, is consolidating its position with strong domestic and external demand. The Indonesian automotive industry is essentially an assembly industry dominated by the major Japanese car manufacturers, but also increasing its exports.

The developing countries studied are making efforts to develop their automobile sector through different paths with direct and indirect influence of government through innovative policies and trade liberalization programmes. Government policies towards investment liberalisation brought significant benefits to the selected countries as private players stepped in with modern technology and FDI started pouring in mainly through the hands of Japanese automobile majors.

Different countries adopted different policies to handle the overcapacity problem in the sector. Chinese has promoted consolidation of the industry through mergers and acquisition while Indians sought overseas market. In both these countries, government policies have been towards development of the indigenous automobile sector through strengthening the national players while Thailand focused entirely on the export market through Japanese companies. Domestic players in Indonesia remained as partners to MNCs in assembling activities.

Protection in automobile sector earlier was mainly through high tariffs, import bans on Completely Build Units (CBU), local content use condition, and restriction on private investment and other regulatory restrictions. Protection in component sector did not work well in general as it helped only the basic components sector to grow domestically in these countries, with most of the critical components still being imported. Thailand has aimed to plug the gaps in the component sector through a focused investment promotion scheme. India is also making an effort to develop indigenous component sector through giving focus in R&D and tightening the IPR regime and thereby inviting big players to step in the critical component sector leaving the basic components in the hands of SMEs. China, on the contrary, is increasing its comparative advantage in the basic component sector through further reduction in cost. For vehicles, it is still focusing on the consolidation of the domestic sectors and improving the technological as well as managerial capabilities of the sector in general.

Specialization in automobile sector is increasingly becoming segment specific as each of these countries is finding its niche. China is specalising in components, India in two wheelers and small vehicles, Thailand in pick-up trucks and passenger cars and Indonesia in utility vehicles. Thailand is exporting to developed countries and strengthening its position in ASEAN. Indonesia is also increasing its trade relation with ASEAN. India is concentrating on Middle East and south Asia beside traditional developed country destinations. With the gradual opening up of the component sector, now the challenge is for individual governments to support the development of domestic critical component and sub-system suppliers through, interalia, improvement in the investment environment, stronger patent regimes and incentives for R&D.

## *Table of Content*

# I. Introduction

Automobile industry is a symbol of technical marvel by human kind. Being one of the fastest growing sectors in the world its dynamic growth phases are explained by nature of competition, product life cycle and consumer demand. Today, the global automobile industry is concerned with consumer demands for styling, safety, and comfort; and with labor relations and manufacturing efficiency. The industry is at the crossroads with global mergers and relocation of production centers to emerging developing economies.

Due to its deep forward and backward linkages with several key segments of the economy, the automobile industry is having a strong multiplier effect on the growth of a country and hence is capable of being the driver of economic growth. It plays a major catalytic role in developing transport sector in one hand and help industrial sector on the other to grow faster and thereby generate a significant employment opportunities. Also as many countries are opening the land border for trade and developing international road links, the contribution of automobile sector in increasing exports and imports will be significantly high. As automobile industry is becoming more and more standardized, the level of competition is increasing and production base of most of auto-giant companies are being shifted from the developed countries to developing countries to take the advantage of low cost of production. Thus, many developing countries are making serious efforts to grab these opportunities which include many Asian countries such as Thailand, China, India and Indonesia.

The rising competition and increasing global trade are the major factors in improving the global distribution system and has forced many auto-giants such as General Motors, Ford, Toyota, Honda, Volkswagen, and Daimler Chrysler, to shift their production bases in different developing countries which help them operate efficiently in a globally competitive marketplace. During the second half of the 1990's, the globalization of the automotive industry has greatly accelerated due to the construction of important overseas facilities and establishment of mergers between giant multinational automobile manufacturers. Over the years, it is being observed that Asia is emerging as a global automotive hub. Exports of automobiles including components from Asia are also increasing by leaps and bounds. Asia has become the major consumer as well as supplier of automobiles.

At this juncture, the study makes an attempt to evaluate the growth pattern, changes in ownership structures, trade pattern, role of government etc. in automobile sector of selected Asian countries (viz. China, India, Indonesia and Thailand). The objective of the study is to understand the dynamics of Indian automobile sector in comparison to the same sector in other selected Asian countries. Thailand is a major auto exporting country from Asia. The sector is mainly driven by Japanese FDI. Chinese automobile sector is growing very fast and is poised to make its dent in the international trade arena very soon with its strong position in component sector. India, on the other hand is consolidating its position with strong domestic and external demand. The Indonesian automotive industry is essentially an assembly industry, dominated by the major Japanese car manufacturers is also coming up in post-liberalization period and increasing its exports.

Japan and Korea Rep already have developed automobile industry. Hence, comparison with these two countries may not be worthwhile. Selected four are developing countries and making an effort to develop the automobile sector through different paths. The paper will compare the alternative strategies for the growth of automobile industry in these selected countries.

## *II. Changing Structure of Global Automobile Industry:*

### II. I Growth of Automobile industry:

The production of automobiles in volume began in the early 1890s, in Western Europe. The USA started the production of both electric and gas automobiles by 1896. In 1903, Ford stepped in. The price of cars reduced from USD 850 in 1908 to USD 360 in 1916. The great depression and the World Wars saw a drop in sale; but the 1950s and 1960s were the glorious era for automobiles (driven by Ford, GM and Chrysler). Production reached 11 million units in 1970. Industry specialists indicate that international business in the automobile industry dates back to the technology transfer of Ford Motor Company's mass-production model from the U.S. to Western Europe and Japan following both World Wars I and II. This gives rise to two important trends. The first one is that, the advancements in industrialization led to significant increase in the growth and production of the Japanese and German automotive markets. The second important trend was that due to the oil embargo from 1973 to 1974, the export of fuel efficient cars from Japan to the U.S.

Earlier due to low fuel prices, US was producing ‘muscle cars’ but after the oil price shocks US had to compete with Europe and Japan who succeeded in producing fuel efficient cars. For the first time, design, marketing, prices, customer satisfaction etc become important in the automobile market. By 1982, Japan became the world leader in US market. The potential growth opportunities led to global overcapacity in automobile industry. 1990s observed the merger and acquisition (M&A) and formation of strategic alliances to tackle this overcapacity problem.

Increasing global trade also act as a major factor for rising growth in world commercial distribution systems, which has also increased the global competition amongst the automobile manufacturers. Japanese automakers have instituted innovative production methods by modifying the U.S. manufacturing model. They are also capable of adapting and utilizing technology to enhance production and increase product competition.

There are three major trends of world automotive industry, which are discussed briefly bellow:

Global Market Dynamics - The world's leading automobile manufacturers continue to invest into production facilities in emerging markets in order to reduce production costs and therefore rise in profits. These emerging markets include Latin America, China, Malaysia and other markets in Southeast Asia.

Establishment of Global Alliances – Now-a-days, there is trend of joint venture in global automotive industry. Most of the giant automobile manufacturers are merging with each others. The big three U.S. automakers (GM, Ford and Chrysler) have merged with, and in some cases established commercial strategic partnerships with other European and Japanese automobile manufacturers. The Chrysler Daimler-Benz merger, were initiated by the European automaker in order to strengthen its position in the U.S. market. Overall, there has been a trend by the world automakers to expand by merging with other giant automotive companies in overseas markets[*].

Industry Consolidation - Increasing global competition amongst the global manufacturers and positioning within foreign markets has divided the world's automakers into three groups, the first group being GM, Ford, Toyota, Honda and Volkswagen, and the two remaining group manufacturers attempting to consolidate or merge with other lower group automakers to compete with the first group companies[†]. Diagram1 provides a snapshot view of this.

World automotive industry, in its early stages of development, was concentrated mainly in hands of developed countries like U.S., Japan etc. But as automobile industry become more and more standardized, the production base of most of auto-giant companies was shifted from the developed countries to developing countries. Standardization makes production more profitable in developing countries due to low cost of labor. That’s why countries like Thailand, China today are the main production base for many multinational automobile companies, and that explain why this study is concentrated only on selected countries in Asia. Table 1 below compares basic features of automobile industry in three major markets in the world.

Table 1: Comparison of Basic Features in Three Major Automobile Market

| Characteristics | US Market | European Market | East and South East Asian Market |
|---|---|---|---|
| Contribution to | Motor vehicle | The automotive industry represents | In Japan industry represents 13 % |

[*] http://www.loc.gov/rr/business/BERA/issue2/industry.html

[†] 1st Group Company Mergers - Volkswagen-Lamborgini; BMW-Rolls Royce
2nd Group Company Mergers - Chrysler-Mercedes Benz; Renault-Nissan-Fiat
3rd Group Company Mergers - Mazda-Mitsubishi; Kia-Volvo

| | | | |
|---|---|---|---|
| Economy | production represents over 5 % of the U.S. private sector GDP in 2002 | approximately 9 % of the EU manufacturing sector | of its total manufacturing output and 10 % of employment. South Korea is exporting 41 % of its total motor vehicle production, with roughly 35 % of the exports going to the U.S. It contributed around 3.7% to GDP in 1999. |
| Industry Characteristics | Organisational and technological change is the key characteristics of the US industry. Of late, steps are taken to increase its global presence by expanding global alliances and seeking greater collaboration with other U.S. automakers. Productivity is more than EU but less than Japan. | The European automotive market is comprised of a concentrated and sophisticated global network, which includes joint-ventures, cooperatives, productions and assembly sites. Like USA, over capacity, intense competition and investment for technology are general features. The industry is driven by MNCs mainly located in Western Europe. However, the growing production is noted in the Czech Republic, Hungary, Poland, Slovenia, Slovakia and Turkey. | East Asian market is mainly driven by Japanese FDI. Apart from this, state sponsored initiatives are observed in Korea Rep., China, etc. These countries are making attempt to develop indigenous auto-industry base. Others are driven by MNCs. Profitability in the industry is relatively more than EU |
| Market Share | Ford, GM and Chrysler makeup approximately 76 % of U.S. passenger vehicle production, while Japanese automakers, Toyota, Honda, Nissan, Mitsubishi, Subaru, Isuzu represents 18 %, and European automakers, BMW and Mercedes (division of Daimler-Chrysler) make up nearly 2%. | The EU's largest automotive producer is Germany estimated at 30 % of EU's total production, followed by France at 19 % and Spain at 17 %, and the United Kingdom at 10 %<br>The largest automakers producing multiple brands, such as General Motors, Ford, Daimler Chrysler, Volkswagen, Fiat and Peugeot Citroen. There are also independent automakers, such as Porsche, BMW and Bertione. | In Japan Toyota, Honda, Nissan, Mazda etc dominate the market. In Korea Rep, Hyundai acquired Kia and Asia Motors in 1999, and sold 10 % of its equity to DaimlerChrysler in 2000; Daewoo purchased 52 % equity in Ssanyong in 1998; and GM purchased 42 % equity of Daewoo; and in 2000, French automaker Renault purchased Samsung Motors. In ASEAN region, Toyota, Hyundai, Suzuki, GM are major players. |
| Demand Pattern (Domestic and export) | The US producers mainly produce for domestic market and | Consumer demand is the driving force for industry in EU. More models, shorter life-cycle is the key | Asian market is growing relatively slowly but steadily in post-financial crisis period. Asia's three core |