

## Foreign Direct Investment in India's Car Industry: Policy Paradigms and Impact

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### Abstract

India has experienced many a paradigm shift in its industrial policy over the years, turning from a highly controlled regime to more de-controlled regime. The shift in the policy set-up since mid-1980s specifically market oriented reform measures was expected to change the pattern and structure of passenger car industry. Significant amongst all is the entry of foreign firms and changing nature of competition in the automobile industry in general and the passenger car industry in particular. The paper examines the implications of growing foreign presence, more specifically, the influence of changing nature of entry on the market structure of India's passenger car industry vis-à-vis the Indian policy framework and perspective since 1947. The paper also highlights the impact of new form of foreign presence on capacity utilization and Balance of Payments.

### Key Words:

Policy changes, foreign direct investment, competition, car industry, and capacity utilization.

### 1. Introduction

Rapid increase in the FDI inflow in large volumes is expected to cause change in the industrial market structure in the host country. The growing presence of foreign players can influence the structure of the industry directly, by increasing competition in the industry and indirectly through attracting more investment for innovations (Lall, 1979; Lundin et al., 2007; Dunning and Lundan, 2008). The likely changes in the industrial structure in the presence of foreign firms are context-specific, that varies across industries as well as across countries. It is conditioned by industry/firm-specific factors as well as institutional set-up of the country (Dunning and Lundan, 2008; Singh, 2009; Singh et al., 2011).

For this, various policy changes and developments that India's passenger car industry has observed since independence deserve due attention. This paper looks at these issues, describing policy changes into three phases. First phase covers the period 1947 to 1980; second phase 1981 to 1993; and third phase 1993 onwards. The major focus of this categorization is to discuss issues pertaining to (a) policy regime relating to the passenger car industry; (b) the influence of the policy regimes on the nature of foreign entry; and (c) its implication for the structure of the industry.

The paper is divided into seven sections including introduction. Section II develops an analytical understanding of the relationship between foreign presence and market structure. Section III provides information on the data sources and methodology used for this study. The nature of foreign presence and the major highlights of the state policies around the passenger car industry are discussed under section VI. The empirical analysis and interpretation of results is given in section V. The implications for capacity utilization and balance of payment are explained under section VI. The conclusion and implications of the study is presented in section VII.

### 2. Foreign Presence and Industrial Structure: Research Evidence

The influence of foreign presence on industrial structure is a widely studied area of research in India and other parts of the world (Lall, 1979; UNCTAD, 1997; Dunning and Lundan, 2008; Singh et al., 2011). This relationship is not uniform across the countries and across industries within the same country. Among other factors, the nature of the relationship is largely determined by the institutional set-up of the host country, local production and technological capabilities, mode of entry of foreign firms (green field investment or merger and acquisition), and industry where foreign firms are entering (Singh, 2009).

Significant amongst all is the structure of market of domestic industry where foreign firms are entering, it is fundamental to the understanding of the influence of FDI on market structure (UNCTAD, 1997). The entry of foreign manufacturers in the form of greenfield investment in a concentrated industry will directly add to the number of manufacturers in the market. The growing number of manufacturers will compete for the existing market and consequently the intensity of competition in the market is likely to increase in the short-run. The long run effect of foreign presence on market structure is conditioned on competitive strength and technological capabilities of host country firms (Fu, 2008; Blalock & Gertler, 2009). Technological capabilities (technical, managerial and organizational skills) are firm specific and evolve over time through experience and purposeful investment made by the firm in technological up-gradation (Ernst et al., 1998).

Firms with the minimum threshold level of technological capabilities are more likely to improve/upgrade in the wake of rising competition from foreign firms. It is so because firms can enhance basic capabilities through various types of investment linkages<sup>1</sup>; vertical transformation of technology and technology spillovers, with foreign firms (Sutton, 2007; Dunning and Lundan, 2008). The process of learning from foreign firms facilitates local firms to improve their technology base which subsequently enables to reduce the technology gap between two sets of firms. The narrowing technological gap permits existing domestic suppliers to compete successfully with new entrants. Accordingly, the intensity of competition in the host country industry will improve in the long run (Driffield, 2001; Lundin et al., 2007).

However, the entry of foreign firms may increase concentration in the host country. This is specifically true under two conditions: First, the entry of firms may increase concentration specifically in those cases where local firms are equipped with poor absorption capabilities (Ernst et al., 1998). Instead of capitalizing upon their technological capabilities, local firms may get discouraged and reduce investment in research and development activities over a period of time. The reduction in investment in technology will reduce the degree of learning of such firms. Consequently, the technology gap will widen between local and foreign firms. The rising technological gap between local and foreign firms may lead to the displacement (crowd out) of local firms from the market. The displacement of local firms will increase the degree of market concentration in the host country (Haller, 2004; Joseph, 1997). Second, the concentration is also possible when foreign firms are entering in those industries where technology is rapidly changing (or life span of technology is very short) or if domestic firms are not able to cope up with rapidly changing technology. As a result, the technological gap between foreign firms and domestic firms will be widened substantially. The widening gap will be difficult to bridge. With the passage of time, the modern technology will become inaccessible to local firms (Kaplinsky, 1984). Consequently, the foreign firms will control market and may lead to oligopoly like situation (Singh, 2009). The emerging oligopolistic market structure has implications for investment in technology related activities. Earlier research also viewed that oligopoly market structure had hardly provided any motivation to the market leader (or big size firms) to put serious efforts in developing long-run technology related investment (Fransman & King, 1984). Evidence from India also supported this view; the oligopoly market structure in most industries till mid-1980s did not motivate firms to engage in research related activities. Rather than investing in technology, the firms in oligopoly market engaged in rent seeking activities (Narayana, 1989; Kathuria, 1996; Sagar & Chandra, 2004). For instance, in India HM was the dominant firm in Indian passenger car industry till the early 1980s. But the spending on research and development (R&D) by this firm was just around 0.1 per cent of the total sales turnover (Mohanty et al., 1994).

Based on above discussion, the rising market influence of foreign presence on the industrial structure is ambiguous. It may intensify competition or increase concentration in the host country. The nature of emerging industrial structure in host country in the presence of foreign firms is conditioned by firm-specific factors as well as institutional set-up of the country (for detail, see Singh, 2009; Singh et al., 2011). Hence, the need to understand the influence of growing foreign presence as well as changing nature of foreign entry on the emerging industrial structure in the Indian passenger car industry.

### 3. Data Sources and Methodology

Various secondary sources and policy documents provide data related to sales and production: (i) Statistical Profile of Indian Automobile Industry annually published by Society of Indian Automobile Manufacturers (SIAM); supplemented with the (ii) Automotive Components Manufacturers Association (ACMA) annual publication entitled Automotive Industry of India: Facts and Figures; and information related to foreign direct investment collected from the Secretariat for Industrial Assistance-Newsletter published by the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India.

The empirical analysis conducted at two levels to measure changes in industrial market structure indicates: first, structural changes at overall level in car industry, analysed by measuring the percentage share of respective passenger car firms to the total production of the industry, that would inform about the impact of changing economic policies on the car industry as a whole; and Second, sub-segment-wise changes in the passenger car industry, analysed by using the following classification within passenger car industry. Different segments have emerged during the last couple of decades viz. mini size car (length up-to 3400 mm, namely M800, Nano etc); Compact (3401 - 4000 mm, namely Alto, Wagon R, Zen, i10, A-star, Swift, i20, Palio, Indica etc); Mid-size (4501 -

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<sup>1</sup> These linkages can be of input suppliers, through joint venture with foreign firm etc.

4700 mm, namely City, Sx4, Dzire, Logan, Accent, Fiesta, Verna etc); Executive (4501 - 4700mm, namely Corolla, Civic, C class, Optra, Octavia, etc.); Premium (4701 - 5000 mm, namely Camry, E class, Accord, Sonata, Laura, Superb, etc.); and Luxury (above 5000 mm, namely Mercedes S class, 5 series etc).

#### 4. Nature of Foreign Presence: Phase-wise Analysis

The entry of foreign firms in the host country can be seen in terms of equity holding; non-equity holding or technological collaboration; and a mix of the two. The developmental effect of different types of foreign presence is not the same. Under technological collaboration, foreign firms supply technology to firms in the host country and receive payments in terms of technology fee or license fee. Through this type of entry, foreign firms cannot directly influence the structure of industry. It is so because the ownership right remains with the domestic firms. On the other hand, the entry of foreign firms through equity holding has direct implications for the host country's industrial structure through its effects on production capacity. Similarly, the mix of the two said strategies is bound to have its own merits, implications and impact.

In India, state intervention in the form of policy decisions has played an important role in the process of industrialization (Lall, 1987). A series of policy measures have been used to build a strong industrial base in the economy and, in turn, the policy measures have not only affected economic environment in which India's passenger car industry has evolved but also regulated the nature of foreign presence in the same (see, Table 1, Column 2 & 3 respectively).

**Table 1: Nature of foreign presence and Policy development in India's passenger car industry**

Phases	Policy Framework: Main features	Nature of foreign presence
1	2	3
Phase 1: 1947- 1980	<ul style="list-style-type: none"> <li>- Emphasized on the indigenization of manufacturing activities.</li> <li>- Restricted the capacity expansion and number of manufacturers through licensing system.</li> <li>- Price regulation.</li> <li>- High custom duty.</li> <li>- Banned the imports of complete vehicles in 1949.</li> <li>- Number of firms till mid-1970s: 3 (HML, PAL and SMPIL).</li> <li>- Market dominated by two firms, namely HML and PAL.</li> </ul>	<ul style="list-style-type: none"> <li>- Only technological collaboration was allowed:</li> <li>- HML technology collaboration with Morris Motor Ltd;</li> <li>- PAL with Fiat;</li> <li>- SMPIL with Standard-Triumph.</li> </ul>
Phase 2: 1980- 1993	<ul style="list-style-type: none"> <li>- Some relaxations in licensing system.</li> <li>- Broad-banding of licenses allowed manufacturers to make flexible use of existing production capacity.</li> <li>- Joint Venture between GOI and SMC to form Maruti Udyog Limited (MUL).</li> <li>- Number of firms increased to 5.</li> </ul>	<ul style="list-style-type: none"> <li>- Except MUL, no foreign firm allowed to enter in the form of equity holding.</li> <li>- Other firms, namely HML, PAL, SMPIL entered in technological collaboration with foreign firms. HM collaborated with Isuzu and Vauxhall Motors; PAL with Nissan Motor and Technolience Ltd.; SMPIL with Austrn Rover;</li> </ul>
Phase 3: 1993 onwards	<ul style="list-style-type: none"> <li>- De-licensing in 1993.</li> <li>- Restrictions on FDI were removed.</li> <li>- Relaxed the imports of raw material and components.</li> <li>- Removed conditions like foreign exchange neutrality, license for imports, local content requirement etc. in April 2001.</li> <li>- The new automobile policy announced in 2002.</li> <li>- Number of firms: &gt; 10</li> </ul>	<ul style="list-style-type: none"> <li>- Nature of foreign presence changed.</li> <li>- Foreign manufacturers permitted to enter both in terms of technology transfer as well as in the form of equity participation.</li> <li>- Equity participation initially allowed up 51 per cent and in 2002 it increased up to 100 per cent via automatic route</li> </ul>

Source: Compiled by the author based on India Brand Equity Fund (2010); ICRA, 2003.

Note: GOI-Government of India; HML- Hindustan Motor Limited; PAL- Premier Automobiles limited; SMPIL-Standard Motor Products India Limited; SMC- Suzuki Motor Corporation.

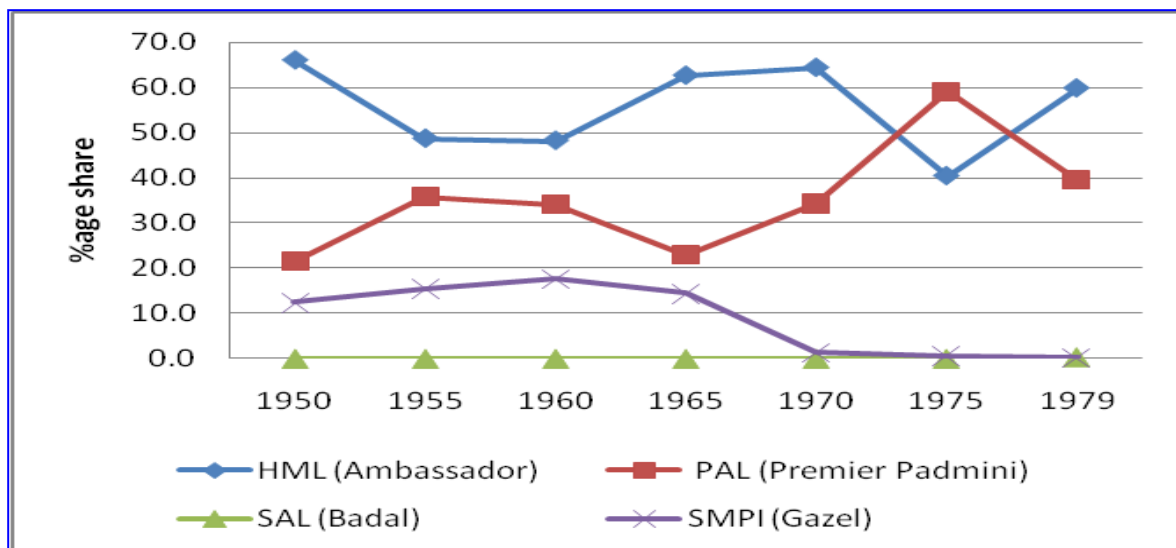
## 5. Structure of Passenger Car Industry: Empirical Analysis

This empirical exercise examines *the influence of foreign presence on the market structure of India's passenger car industry*. To understand this, the market share of different manufacturers operating in the car industry is calculated for each policy regime. The changing market position of manufacturers informs about the degree of competition in the market. In a market, continuous strengthening of market position of one or two leading manufacturers indicates the absence of competition in that market.

### Phase-wise analysis

**First phase (1950 to 1980):** In this phase, the number of manufacturers in the passenger car industry remained limited due to government licensing policy and other policy instruments. Consequently, till late 1970s, only three firms were operating in the car industry and each manufacturer was permitted to produce only a single model of a car (Pingle, 1999; Okada, 2004; Saripalle, 2012). Figure 1 presents the market share of each manufacturer in the car market, indicating that Hindustan Motor Limited (HML) and Premier Automobiles Limited (PAL) were the dominant players in the market. In 1950s, the market share of HML, PAL and Standard Motor Products India Limited (SMPIL) was 66.1 per cent, 21.5 per cent and 12.3 per cent respectively. Except some fluctuations, the market position of each manufacturer remained same till late 1960s. The only change observed in the late 1960s was that SMPIL experienced gradual erosion of its market share and it got disappeared from the car market in 1980s (Figure 1).

**Figure 1: Market Share of Cars: By Producers and types of products**



Source: Automotive industry of India (Various Years) Facts and Figures; Automotive Components Manufacturers Association.

Displacement of SMPIL from the market led to rise in the market share of the other two firms. For instance, in 1980s, the market share of HML and PAL increased up to 71.2 per cent and 28.6 per cent respectively. No third firm got entry in the car market.

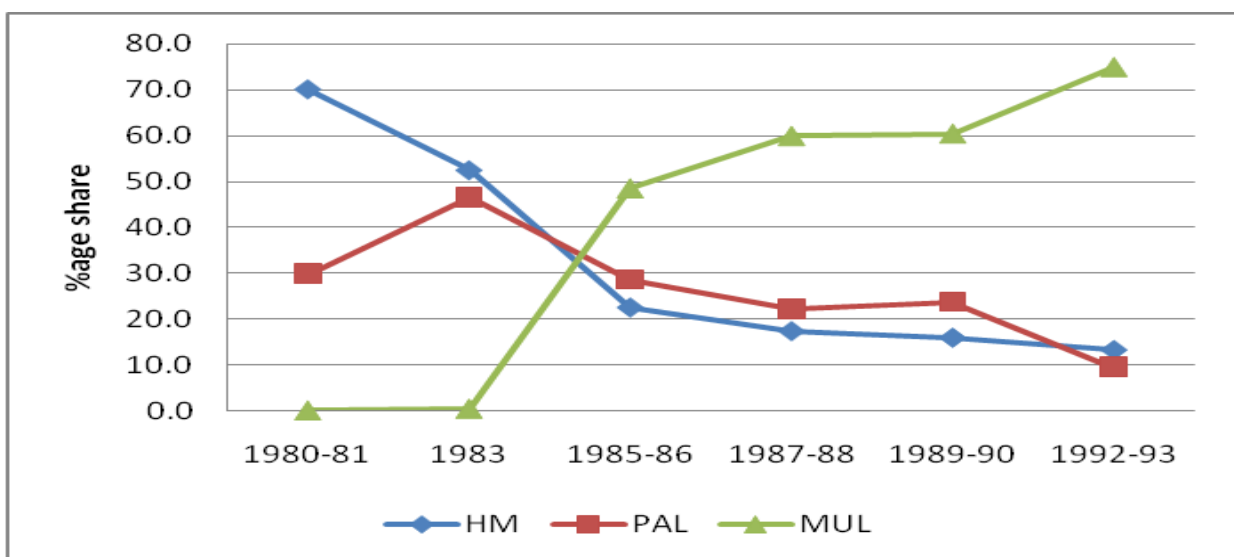
Hence, the car market in 1980s was more like a duopoly market where HML was the market leader. It happened because of two reasons: (a) the government did not allow foreign firms to participate in the car industry in the form of equity participation (entry through equity participation had not been conceived as a policy measure till then) and that they could participate only in a limited way under the licensing system (See Table 1). In turn, the foreign firms could not directly influence the market structure of the car industry; and (b) the entry of new firms (both from Indian and abroad) was subjected to government approval. Hence, in this phase, primarily the state policies played a decisive role in shaping the market structure of the passenger car industry.

**Second Phase:** Figure 2 presents the changing market structure experienced by the passenger car industry under the second phase of policy changes. During this phase, the passenger car industry got significantly restructured (Narayana, 1989; Costa, 1995). It was the period when Indian

government initiated some degree of relaxation on the policy front in general and extended specific benefits to Japanese private investment (Kumar, 2002; Sinha, 2004)<sup>2</sup>. Resultantly, Japanese car manufacturers experienced their entry in India's car industry both in the form of technology agreement as well as in the form of equity participation (D'Costa, 1995). The Japanese participation specifically in the form of equity holding brought significant changes in the structure of passenger car market (Figure 2). With the formation of a joint venture between Japanese private capital and India's state capital, the established manufacturers in the passenger car industry namely HML and PAL observed sharp decline in their market shares. The market shares of HML and PAL were 70 per cent and 30 per cent respectively in 1980-81 that declined drastically to 13.4 per cent and 9.4 per cent respectively in 1992-93. Other established producer, SMPIL and Sipani Automobiles could not hold ground in the car market (Figure 2). Subsequently, these two firms left the car market altogether. Contrary to this, the market share of new joint venture under the name of Maruti Udyog Limited (MUL) witnessed a significant rise in their market share. Within the period of eight years, the market share of MUL increased from zero per cent in 1983 to 60.3 per cent in 1989-90 and further to 74.8 per cent in 1992-93 (See Figure 2).

This situation was exactly similar to what was predicted in analytical framework. The poor technology base of domestic manufacturers provided space for technologically sophisticated joint ventures to get larger market shares.

**Figure 2: Shares of Car Producers**



Source: Same as figure 1.

*Factors that facilitated MUL to become the market leader within a short span of time* There are two main factors behind MUL leadership: First, the passenger car industry in India primarily developed in isolation from the world market till early 1980s because of domestic protection granted to it by the government, through various policy measures to provide certain market for their products and, that too, for almost three decades since 1947. The protective policy environment improved the learning of local firms through indigenization of the production process (Lall 1987). The learning of manufacturers is evident from the degree of indigenization which they had successfully achieved by early 1980s. According to Agarwal (1987) and Narayana (1989), the indigenous content used in the production of Ambassador car; Fiat car, Standard Ten car, Tata Mercedes Truck, Stude-baker Truck, Dodge Truck, Leyland Comet, and Jeep was 99.82 per cent, 99.64 per cent, 99.33 per cent, 98.8 per cent, 93.7 per cent, 99.85 per cent, 96.55 per cent, and 96.5 per cent respectively in the early 1970s.

However, this indigenization process failed to generate enough incentives for the manufacturers to attract investment for research and development activities. According to Mohanty, Sahu and Pati (1994) the investment in technology by HML and PAL was almost negligible till the entry of MUL. It was only after the entry of MUL in car industry that the existing manufacturers started investing in

<sup>2</sup> To attract Japanese manufacturers, government of India has undertaken series of measures. It includes (i) in December 1986, Cabinet Committee on Economic Affairs permitted foreign equity even in existing Indian industries employing sophisticated technology; (ii) in 1988 the government announced the setting up of a 'fast channel' for clearing of Japanese private investment and technology (Kumar, 2002) and (iii) the government also announced exemption of export profits from income tax to attract Japanese corporations to produce in India for exports.

technology. For instance, during 1980-1985, the average investment in R&D by HML was just 0.1 per cent of total sales which increased to 0.3 per cent during 1985 to 1990. Similarly, PAL's investment on R&D was not more than one 1 per cent of its total sales turnover. At the same time, the average investment on R&D of leading international automobile firms varied between 3 to 4 per cent of their total sales turnover (Fuss and Waverman, 1992). The differences in the spending on R&D between Indian and international firms suggested the incompetency of Indian firms. *The poor performance of technology and low absorption capacity also proved to be a major constraint for these firms to effectively indigenize the imported technology.* As a result, the domestic firms failed to compete with technologically efficient firms and their market position weakened after mid-1980s. Given the technological sophistication and optimal production scale, the products produced by MUL were 21 per cent cheaper than the lowest price model available in India in 1980s (D'Costa, 1995; Humphrey et al., 1998, Pingle, 1999; Okada, 2004).

The second factor that facilitated MUL's growth was that, except Maruti Suzuki joint venture, no new firm was allowed to enter the car industry with foreign collaboration. The government received 19 proposals for permission from many foreign firms to contest in the Indian passenger car industry including Citroen, Fiat, Honda, Toyota, and Mitsubishi. Among all, the most important proposal for joint venture, which the government had rejected, was between Tata Motors and Honda Motors (Japan), despite the fact they were fulfilling the basic requirements of indigenization. The proposal of the joint venture was agreeing to utilize 50 per cent local content in the first year of production and to increase it upto 90 per cent in the fifth year of production. Instead the government raised the requirement of use of local content to upto 70 per cent in the first year of production. These companies were not in a position to meet the enhanced requirement of use of local content and their proposal was rejected on the ground of excessive foreign exchange outflow (Aggarwal, 1987; D'Costa, 1995). The rejection of proposal of a joint venture between Tata Motors and Honda Motors (Japan) in turn helped MUL to increase its market share in the passenger car industry. Besides economic reasons, political back-up from the government in terms of restricting entry of other competitive firms also played an important role in the MUL's market success.

**Table 2: Market Share of Passenger car Industry by Producers**

Years	H M	MUL	PAL	Tata Eng.	DM	PP	Fiat India	GM India	HYD	Ford India	Honda Siel Cars Ltd.	Toyota Kirloskar Motors	Skoda Auto India	Total
1990-91	14	62	24	0	0	0	0	0	0	0	0	0	0	99.5
1995-96	8	77	6	3	3	3	0	0	0	0	0	0	0	99.6
2000-01	5	66	0	9	0	0	0	2	17	1	1	0	0	99.8
2005-06	1	51	0	15	0	0	0	1	23	2	4	1	1	99.8
2009-10	0	49	0	11	0	0	1	3	28	2	3	0	1	99.4

Source: Statistical Profile of Automobile Industry (Various years), Society of Indian Automobile Manufacturers.

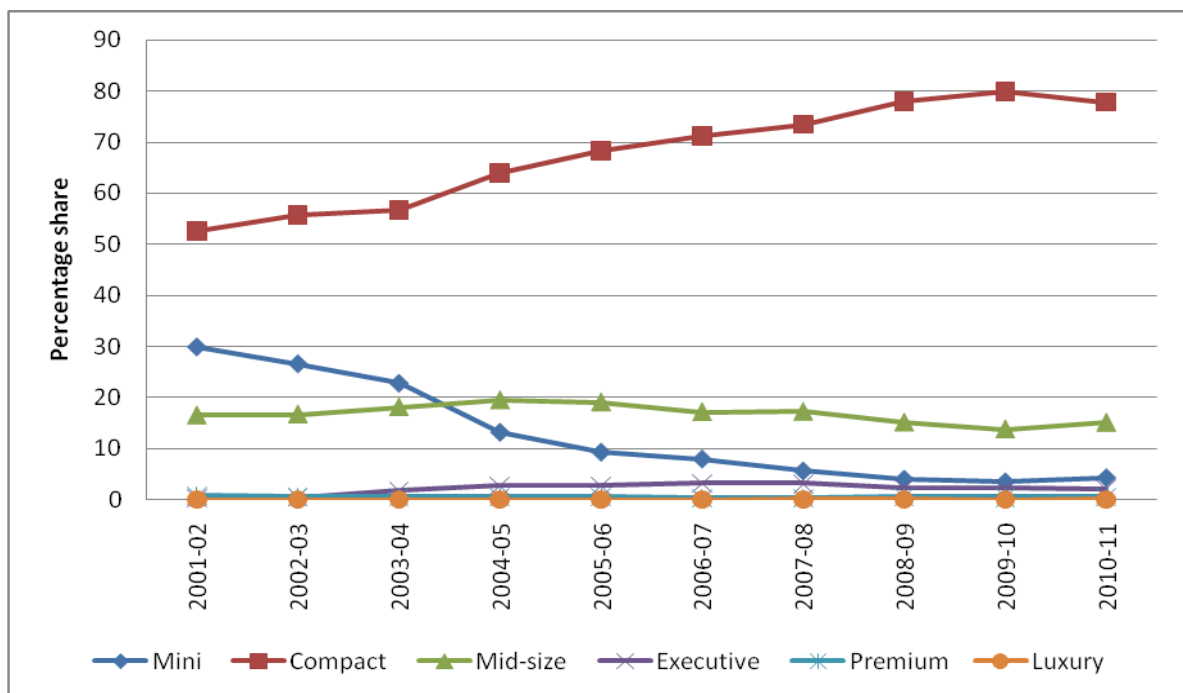
**Third phase:** In this phase, that is, post-1993, the nature of foreign presence changed from one of technology suppliers to direct participants in the Indian car industry (Sagar and Chandra, 2004; Kale, 2012). Direct participation by foreign firms to start car production activities in India caused a paradigm shift in the nature of foreign presence that attracted large number of foreign firms. Amongst the new entrants, the most prominent ones included Ford India Private Limited; Hyundai Motor India Limited; Tata Motors Limited; Honda Siel Cars India Limited; Skoda India; Daimler-Benz India; Toyota Kirloskar Motor Private Limited; Nissan Motor India Private Limited, etc (Refer Table, 2). The entry of these firms completely restructured the passenger car industry in India. These firms started competing with existing firms for the same market. Hence, the intensity of competition increased in the industry, coupled with the changing position of existing manufacturers. For their survival, therefore, the older established firms, namely HML and PAL entered into technological collaborations as well as formed joint ventures with various foreign firms (Kale, 2012). Irrespective of technology collaborations and joint ventures with foreign firms, the established firms witnessed decline in their market share. In 1990-91, the market share of HML and PAL was 14 per cent and 24 per cent respectively which declined to 5 per cent and 0 per cent respectively in 2000-01 causing PAL to withdraw completely. The growing intensity of competition not only affected the older firms established before 1980s, but also posed a challenge to the technologically advanced firms like MUL. Though MUL is still the largest manufacturer in the Indian car market, its market share too declined from 77 per cent in 1995-96 to 49 per cent in 2009-10, mainly because of the entry of new players in

similar segments of car production as of MUL. This phase witnessed change in favour of competition as a strategy for the manufacturers.

Till the mid-1990s, the manufacturers in India’s car industry were producing limited number of products with no segmentation within car industry. In the wake of growing entry of new players and subsequently rising competition, the manufacturing firms in car industry changed their marketing strategy. Instead of focusing on the whole car industry, they started targeting those segments of cars where they are either competitive enough or the market potential allowed them to enjoy economies of scale in production. This development in the car industry classified the whole production of cars into different segments<sup>3</sup>. It permitted the car manufacturers to plan their product so as to target a particular section of consumers. For instance, Tata Motor manufactured low cost Nano car to target potential buyers who were mainly using two-wheelers as a mode of transportation.

Figure 3 presents segment-wise distribution of cars in India between 2001-02 and 2010-11. During last ten years, the composition scenario of car production in India drastically changed in favour of a skewed composition towards compact segment that accounted for almost 80 per cent share of total car production in India in 2010-11 as compared to was just 50 per cent in 2001-02 (Figure, 3). The market share of mid-size car segment more or less remained same whereas the market share of mini car segment declined from 29.87 per cent to 8.03 per cent and further to 4.37 per cent during the same period. Sharp decline in the market share of mini car segment and the rapid expansion of the compact segment of passenger car attracted new as well as existing manufacturers to produce products for compact segment. For instance, Ford India introduced Ford Figo; Hyundai Motors introduced EON; Renault India introduced Pulse, Chrysler Corporation introduced Spark, besides many more firms with long term plans to enter into this market. During the reference period, the Premier and Luxury segments also observed high growth and subsequently their market share in the total production improved. The combined share of these two segments is less than 1 per cent of total market as their products produced are not for mass population, they are just for the richest few of the Indian population.

**Figure 3: Changing composition of passenger car by categories (% age share)**



**Source: Statistical Profile of Automobile Industry (Various Issues), Society of Indian Automobile Manufacturers**

<sup>3</sup> Based on the length of car, the Society of Indian automobile Manufacturers has broadly divided car industry into six segments from mini segment to luxury segment (see section on data and methodology).

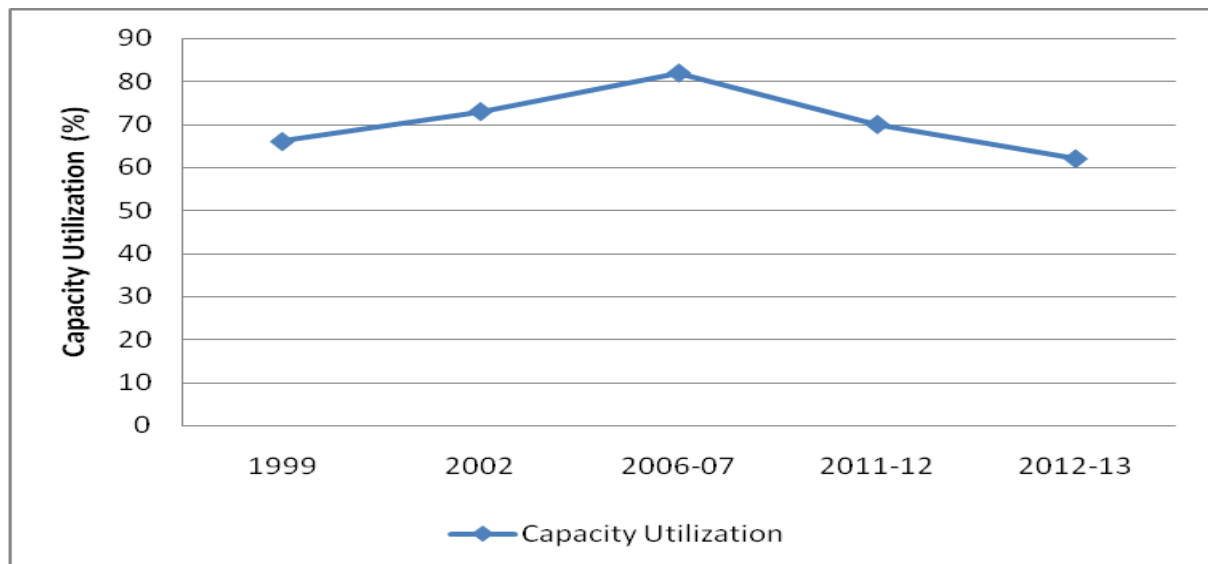
The empirical analysis shows that the foreign presence in India’s car industry in the form of ownership right has completely restructured the industry due perhaps to the growing intensity of competition which facilitated manufacturing firms to change their market strategy that primarily aims at producing differentiated products which in turn facilitates the firms in strengthening their competitive advantages (Ernst et al., 1998; Singh, 2009). In addition, the marketing strategy perhaps also tries to reduce the gap between market demands and the innovation priorities the products require in the market. Such kind of a marketing strategy encouraged manufacturing firms to invest more and more in order to maintain their competitiveness in the long run (Sagar and Chandra, 2004; Singh, 2008). In this course of action, manufacturing firms may over invest. Large investment in the wake of high competition may lead to the underutilization of invested capacity and the need to examine the implications of foreign presence for capacity utilization in the long run.

**6. Implications for Capacity Utilization and Balance of Payment**

The changing policy environment of the 1980s and 1990s, among others, considerably eliminated the restrictions on the investment and production decisions of car manufacturers. Consequently, the entry of foreign and domestic firms increased their production capacity in the country. During 2005-06 to 2011-12, the production capacity increased from 1.88 million to 4.2 million. The substantial rise in the production capacity of the car industry is mainly due to growing domestic demand fueled by the high economic growth which Indian economy achieved during the last decade, on the one hand, and easy availability of credit, on the other hand (Ranawat and Tiwari 2009). To exploit the growing market, foreign direct investment (FDI) received by the Indian automobile industry in 2004 was Rs. 6342.5 million and it increased to Rs. 59,797.67 million in 2012 (Singh, 2010; GOI, 2013). Out of the total FDI inflow in automobile industry, passenger car segment succeeded in attracting around 48 per cent FDI during 2000-2011 (GOI, 2011). The increased entry of new players and subsequently rising production capacity has shown a sign of overcrowding. It is evident from rising underutilized production capacity in the industry (Figure, 4).

The utilization capacity of this industry had initially increased from 66 per cent in 1999 to 82 per cent in 2006-07. It reached maximum in 2006-07, after which it is seen to be falling (See Figure 3). Though capacity utilization has fallen, it has not fallen uniformly across manufacturers. For instance, data on capacity utilization by manufacturers in 2013 suggests that the Maruti Suzuki ranked highest with 92.77 per cent capacity utilization whereas Renault Nissan was placed at the bottom with 48.49 per cent capacity utilization (Economic Times, 2013).

**Figure 4: Trend in Capacity Utilization in Passenger car industry (in % age)**



**Source: Profile of Automobile industry; Chandra and Sagar (2004); Economic Times, 2013**

There could be several reasons for underutilization of production capacity. One could be the shorter product life cycle which led to rapid change from the production of a model to another model of car with advanced technology. This change had direct implications for the import of technology and other inputs. Rapid market growth and fast changing technology encouraged firms to increase use of



imported content in their final products obviously increase in import of technology seems to be associated with the outflow of foreign exchange. In general, research in Indian context shows the rising net outflow of foreign exchange from the country (Chandrasekhar and Ghosh, 2004; RBI 2006 and 2010). For instance, the per firm net outflow of foreign exchange was just Rs. 6.4 crore in 1995-96 which increased to Rs. 13.4 crore in 2004-05 and further to Rs. 45.8 crore in 2009-10. The rising net outflow of foreign exchange not only posed the Balance of Payment problem in India but also depreciated the value of Indian rupee as witnessed in the recent past.

## 7. Observations, Conclusion and implications

Paradigm shift in India's development strategy from a highly controlled regime to a more de-controlled and market-oriented policy regime over the years seems to have significantly changed the institutional set-up around industrial sector, in general and passenger car industry, in particular. It is the institutional environment which ultimately influences the structure and pattern of industrial sector by influencing long term motives and incentive system. In this context, *the study in hand aimed at understanding the influence of changing nature of entry of foreign firms under various policy regimes on the market structure of passenger car industry for the period 1950 to 2010.*

Till early 1980s, the role of foreign presence was just limited to that of technology suppliers and the ownership right remained in the hands of domestic firms. Given the nature of foreign presence, industrial market structure was critically shaped by the government policy which aimed at developing an indigenous automobile industry and restricting the entry of new firms, especially foreign firms, in the industry. The restrictive policy limited the number of manufacturers in car industry. The controlled regime also limited the scope of innovation by restricting the production limit and diversification of products. Consequently, the car market remained more of a seller's market rather than a buyer's market in that the consumer did not have any choice. As a result, policy measures did succeed in indigenizing the production activities of passenger car industry to quite an extent. For instance, the indigenous content of the then Ambassador, Fiat and Standard Ten cars had reached to 99.82 per cent, 99.64 per cent and 99.33 per cent, respectively, by mid-1970s.

The restrictive and controlled regime that restricted technological advancement, in quite a big way, provided the basis for bringing necessary changes required for technological upgradation. Restrictions on the entry of foreign firms in the passenger car industry were gradually relaxed to a limited extent. It was done in order to effect restructuring of the industry and its technological upgradation through foreign collaborations. A major factor behind the restructuring was the entry of a transnational firm (Suzuki Motor Corp.) through a joint venture with the state. On the flip side, as the domestic firms failed to compete with the technologically efficient joint venture, in terms of fuel efficient and technologically advanced products their market position weakened after mid-1980s, the existing firms were forced to cut short or exit the industry because of poor technological capabilities. HML and PAL experienced increase in the under-utilization of production capacities whereas SMPIL and Sipani Automobiles had to exit the industry.

However, following the partial liberalization process, rigorous efforts began in early 1990s to construct the basis for more competitive market structure, permitting foreign firms to enter the Indian industry through *equity holding*. Soon this resulted in fast and huge entry of foreign firms in the passenger car industry. The rising number of foreign players not only intensified competition in the market but also boosted the country's production capacity. Unlike the previous two policy regimes, this regime not only intensified competition in the industry but also changed the nature of competition. Till mid-1990s, firms started competing to increase their market share in car industry as a whole. After that, the firms were competing not for their share in whole industry but rise for their share in specific segments of the industry.

In short, the position of indigenous passenger car firms vis-à-vis foreign firms started weakening in mid-1980s as is evident from their declining market share. As the entry of foreign firms under liberal investment regime continues to grow, it is likely that their market position deteriorates further. It seems to be a major challenge to India's indigenous production capacity that it has built through active state intervention for so many years. The analysis also reveals that intensity of competition in the car industry too has increased multifold. It has forced the car manufacturers to invest more and more to compete and produce fuel efficient, technologically advanced and differentiated products in order to retain their market position. They ought to overcome the under-utilization capacity of the industry which has increased considerably and is likely to do so even further. They need also to keep

in mind the challenge of the increasing FDI in the automobile industry as well in the days to come. A formidable challenge indeed.

## References

- Agarwal, N. R. (1987). *Corporate investment and financing behaviour: An econometric analysis of India Automobile Industry*. Delhi: Commonwealth Publishers.
- Blalock, G. & Gertler J. P. (2009). How firm capabilities affect who benefits from foreign technology. *Journal of Development Economics*, 90(2), 192–199.
- Chandrasekhar, C. P. & Ghosh, J. (2004). *The market that failed: neoliberal economic reforms in India*, Delhi: LeftWord.
- D'Costa, A. (1995). The restructuring of the Indian automobile industry: Indian state and Japanese capital. *World Development*, 23(3), 485-502.
- Driffield, N. (2001). Inward Investment and Host Country Market Structure: The Case of the U. K.. *Review of Industrial Organization*, 18(4), 363-378.
- Dunning, J. H. & Lundan, S. M. (2008). *Multinational Enterprises and the Global Economy*. U.K.: Edward Elgar.
- Economic Times. (2013). *Carmakers Maruti, Toyota, Honda and others Plan to Invest Rs. 11000 crore to expand capacity, Counter slowdown*. September 27. Available at: [http://articles.economicstimes.indiatimes.com/2013-04-24/news/38790465\\_1\\_market-share-rc-bhargava-capacity](http://articles.economicstimes.indiatimes.com/2013-04-24/news/38790465_1_market-share-rc-bhargava-capacity)
- Ernst, D., Ganiatsos, T. & Mytelka, L. (1998). *Technology capabilities and export success in Asia*. London: Routledge.
- Fransman, M. & King, K. (1984). *Technological capability in the third world*. Hong Kong: Macmillan
- Fu, Xiaolan (2008): Foreign direct investment, absorptive capacity and regional innovation capabilities: Evidence from china, *Journal Oxford Development Studies*, 36(1), 89-110.
- Fuss, M. A. and Waverman, L. (1992). *Costs and productivity in automobile production: The challenge of Japanese efficiency*. Canada: Cambridge University Press.
- GOI. (2011). *SIA Newsletter Annual Issue*. Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, New Delhi: Government of India.
- GOI. (2013). *Foreign Direct Investment Statistics*. Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, New Delhi: Government of India.
- Haller, S. (2004): The Impact of Multinational Entry on Domestic Market Structure and R and D, European University Institute working paper No. 2005/16.
- Hamaguchi, T. (1985). Prospects for self-reliance and indigenization in automobile industry (case of Maruti-Suzuki project). *Economic and Political Weekly*, 20(35), M115-M122.
- Humphrey, J., Mukherjee, A., Zilbovicius, M., and Arbix, G. (1998). Globalization, FDI and the restructuring of supplier networks: the motor industry in Brazil and India. In M. Kagami, J. Humphrey, and M. Piore (Eds.). *Learning, liberalization and economic adjustment* (pp. 117–189). Tokyo: Institute of Developing Economies.
- ICRA. (2003). *The Indian Passenger Car Industry November 2003*. New Delhi: ICRA.
- India Brand Equity Fund. (2010). *Automotives- A Presentation*. Available at [http://www.ibef.org/download/Automotives\\_270111.pdf](http://www.ibef.org/download/Automotives_270111.pdf)
- Joseph, K.J. (1997). *Industry under Economic Liberalization: The Case of Indian Electronics*. New Delhi: Sage.
- Kale, D. (2012). Sources of innovation and technology capability development in the Indian automobile industry. *International Journal of Institution and Economics*, 4(2), 121-150.
- Kaplinsky, R. (1984). Trade in technology-who, what, where and when?. In Martin Fransman and Kenneth King. (eds.). *Technological capabilities in the third world*, Hong Kong: Macmillan.

- Kathuria, S. (1996). *Competing through technology and manufacturing: A study of the Indian commercial vehicles industry*. Delhi: Oxford University Press.
- Kumar, N. (2002). *Multinational Enterprises in India: Industrial Distribution, Characteristics and Performance.*, New York: Routledge.
- Lall, S. (1979). Multinational and market structure in an open developing economy: The case of Malaysia. *Review of World Economies*, 115(2), 325-350.
- Lall, S. (1987). *Learning to industrialize: the acquisition of technological capability in India*. Basingstoke and London: Macmillan.
- Lundin, N., Sjöholm, F., He, P. & Qian, J. (2007). FDI, Market Structure and R and D Investments in China, The International Centre for the Study of East Asian Development Working Paper No. 708.
- Mohanty, K P; Sahu, K. P., & Pati, C. S. (1994). *Technology Transfer in Indian Automobile Industry*. Delhi: Ashish Publishing.
- Narayana, D. (1989). *The motor vehicle industry in India (Growth within a regulatory policy environment)*. New Delhi and Trivandrum: Oxford & IBH Publishing Co. Pvt. Ltd.
- Narayana, D; Eapen, M. & Makherjee, C. (1992). Growth, technical dynamism and policy change in the Indian motor vehicle industry. In Arun Ghosh, K. K. Subrahmanian, M Eapen and H. A Drabu (Eds.), *Indian Industrialization: Structure and Policy Issues*, Delhi: Oxford University Press.
- Okada, A. (2004). Skills development and interfirm learning linkages under globalization: lessons from the Indian automobile industry. *World Development*, 32(7), 1265–1288.
- Pingle, V. (1999). *Rethinking the Developmental State*. New York: St. Martin's Press.
- Ranawat, R and Tiwari, R. (2009). Influence of government policies on industry development: the case of India's automotive industry. *Hamburg University of Technology Working Paper No. 57*.
- RBI. (2006). *Reserve Bank of India Monthly Bulletin*. April issue, Mumbai: Reserve Bank of India.
- RBI. (2010). *Reserve Bank of India Monthly Bulletin*. March issue, Mumbai: Reserve Bank of India.
- Sagar, D. A. & Chandra, P. (2004). Technological change in the Indian passenger car industry", Harvard University, BCSIA Discussion Paper 2004-05.
- Saripalle, M. (2012). Learning and capability acquisition: A case study of the Indian automobile industry. *Madras School of Economics working paper 65/2012*, Chennai, India.
- Singh, J. (2009). Foreign direct investment and market structure: Evidence from India's manufacturing sector, *Centre for Development Studies M. Phil Dissertation*, Trivandrum, Kerala.
- Singh, J. (2010). Economic reforms and foreign direct investment in India: policy, trends and patterns. *The IUP Journal of Financial Economics*, 8 (4), 59-69
- Singh, J., Joseph, J. K. & Abraham, V. (2011). Inward investment and market structure in an open developing economy: A case of India's manufacturing sector. *Indian Journal of Economics*, XIIC (3), 286-297.
- Singh, J.; Jha, S., and Singh, Y. (2011). Impact of liberalization on foreign direct investment: An empirical analysis of Indian economy in post reform period. *The IUP Journal of Public Finance*, 9 (3), 23-33.
- Singh, N (2008) "Automotive industry", in N. Kumar and K. J. Joseph. (Ed.), *International Competitiveness and Knowledge based Industries in India*, OUP: Delhi, pp: 231-279.
- Sinha, P. B. J. (2004). *Multinationals in India: Managing the interface of cultures*. Delhi: Sage.
- Society of Indian Automobile Manufacturers. (Various years). *Statistical Profile of Automobile Industry*. New Delhi: Society of Indian Automobile Manufacturers.
- Sutton, J. (2007). Quality, Trade and the Moving Window: The Globalization Process. *The Economic Journal*, 117 (November issue), 469-498
- UNCTAD. (1997). *Transnational corporations, market structure and competition policy*. United Nations Conference on Trade and Development, New York: World Investment Report.