The Trends And Determinants Of FDI Inflows Of Selected Indian Automobile Industries

Abstract
India is been identified as one of the most attractive long-term investment destinations. The presence of large domestic market, fairly well developed financial architecture and skilled human resources are attracting the FDI inflows to the country. The automobile sector is also in the race of receiving FDI inflows from foreign countries. This paper is an attempt to show the trends and determinants of FDI inflows to the automobile sector of India. It is been identified that even though the FDI inflows to the automobile sector is fluctuating year after year the sector is developing and is able to receive good amount of capital inflows.

1. INTRODUCTION
Foreign Direct Investment (or FDI) is an investment made by a company or entity based in one country, into a company or entity based in another country. Foreign direct investments differ substantially from indirect investments such as portfolio flows, wherein overseas institutions invest in equities listed on a nation's stock exchange. Entities making direct investments typically have a significant degree of influence and control over the company into which the investment is made. Open economies with skilled workforces and good growth prospects tend to attract larger amounts of foreign direct investment than closed, highly regulated economies.

1.1 FDI in India
Foreign Direct Investment (FDI) is a major source of non-debt financial resource for the economic development of India. Foreign companies invest in India to take advantage of relatively lower wages, special investment privileges such as tax exemptions, etc. For a country where foreign investments are being made, it also means achieving technical know-how and generating employment. The Indian government’s favourable policy regime and robust business environment have ensured that foreign capital keeps flowing into the country. The government has taken
many initiatives in recent years such as relaxing FDI norms across sectors such as defence, PSU oil refineries, telecom, power exchanges, and stock exchanges, among others.

1.2 Market size

According to Department of Industrial Policy and Promotion (DIPP), the total FDI inflows soared by 24.5 per cent to US$ 44.9 billion during FY2015, as compared to US$ 36.0 billion in FY2014. FDI into India through the Foreign Investment Promotion Board (FIPB) route shot up by 26 per cent to US$ 31.9 billion in the year FY2015 as against US$ 25.3 billion in the previous year, indicating that government's effort to improve ease of doing business and relaxation in FDI norms is yielding results.

Data for FY2015 indicates that the increase in the FDI inflows was primarily driven by investments in infrastructure and services sector. Within Infrastructure, Oil & Gas, Mining and Telecom witnessed higher FDI inflows, whereas IT services and trading (wholesale, cash & carry) drove the services inflows. Most recently, the total FDI inflows for the month of May 2015 touched US$ 3.85 billion as compared to US$ 3.6 billion in the same period last year.

During FY2015, India received the maximum FDI equity inflows from Mauritius at US$ 9.03 billion, followed by Singapore (US$ 6.74 billion), Netherlands (US$ 3.43 billion), Japan (US$ 2.08 billion) and the US (US$ 1.82 billion). Healthy inflow of foreign investments into the country helped India’s balance of payments (BoP) situation and stabilised the value of rupee.

According to the data released by Grant Thornton India, the total merger and acquisitions (M&A) and private equity (PE) deals in the month of May 2015 were valued at US$ 3.2 billion (115 deals), which is 21 per cent higher in volume as compared to May 2014.

2. PROFILE OF INDIAN AUTOMOBILE INDUSTRY

The Indian auto industry is one of the largest in the world with an annual production of 23.37 million vehicles in FY 2014-15, following a growth of 8.68 per cent over the last year. The automobile industry accounts for 7.1 per cent of the country's gross domestic product (GDP). The Two Wheelers segment with 81 per cent market share is the leader of the Indian Automobile market owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring the rural markets further aided the growth of the sector. The overall Passenger Vehicle (PV) segment has 13 per cent market share.

India is also a prominent auto exporter and has strong export growth expectations for the near future. In FY 2014-15, automobile exports grew by 15 per cent over the last year. In addition, several initiatives by the Government of India and the major automobile players in the Indian market are expected to make India a leader in the Two Wheeler (2W) and Four Wheeler (4W) market in the world by 2020.

2.1 Market Size

The industry produced a total 14.25 million vehicles including PVs, commercial vehicles (CVs), three wheelers (3W) and 2W in April-October 2015 as against 13.83 in April-October 2014, registering a marginal growth of 3.07 per cent year-on-year.
The sales of PVs grew by 8.51 per cent in April-October 2015 over the same period last year. The overall CVs segment registered a growth of 8.02 per cent in April-October 2015 as compared to same period last year. Medium & Heavy Commercial Vehicles (M&HCVs) registered very strong growth of 32.3 per cent while sales of Light Commercial Vehicles (LCVs) reduced by 5.24 per cent during April-October 2015 year-on-year. In April-October 2015, overall automobile exports grew by 5.78 per cent. PVs, CVs, 3Ws and 2Ws registered growth of 6.34 per cent, 17.95 per cent, 18.59 per cent and 3.22 per cent respectively in April-October 2015 over April-October 2014.

2.2 Investments

In order to keep up with the growing demand, several auto makers have started investing heavily in various segments of the industry during the last few months. The industry has attracted foreign direct investment (FDI) worth US$ 13.48 billion during the period April 2000 to June 2015, according to data released by Department of Industrial Policy and Promotion (DIPP).

Some of the major investments and developments in the automobile sector in India are as follows:

- Global auto major Ford plans to manufacture in India two families of engines by 2017, a 2.2 litre diesel engine codenamed Panther, and a 1.2 litre petrol engine codenamed Dragon, which are expected to power 270,000 Ford vehicles globally.
- The world’s largest air bag suppliers AutolivInc, Takata Corp, TRW Automotive Inc and Toyoda Gosei Co are setting up plants and increasing capacity in India.
- General Motors plans to invest US$ 1 billion in India by 2020, mainly to increase the capacity at the Talegaon plant in Maharashtra from 130,000 units a year to 220,000 by 2025.
- US-based car maker Chrysler has planned to invest Rs 3,500 crore (US$ 525 million) in Maharashtra, to manufacture Jeep Grand Cherokee model.
- Mercedes Benz has decided to manufacture the GLA entry SUV in India. The company has doubled its India assembly capacity to 20,000 units per annum.
- Germany-based luxury car maker Bayerische Motoren Werke AG’s (BMW) local unit has announced to procure components from seven India-based auto parts makers.
- Mahindra Two Wheelers Limited (MTWL) acquired 51 per cent shares in France-based Peugeot Motorcycles (PMTC).

2.3 Government Initiatives

The Government of India encourages foreign investment in the automobile sector and allows 100 per cent FDI under the automatic route.

Some of the major initiatives taken by the Government of India are:

- Government of India aims to make automobiles manufacturing the main driver of ‘Make in India’ initiative, as it expects passenger vehicles market to triple to 9.4 million units by 2026, as highlighted in the Auto Mission Plan (AMP) 2016-26.
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In the Union budget of 2015-16, the Government has announced to provide credit of Rs 850,000 crore (US$ 127.5 billion) to farmers, which is expected to boost the tractors segment sales.

The Government plans to promote eco-friendly cars in the country i.e. CNG based vehicle, hybrid vehicle, and electric vehicle and also made mandatory of 5 per cent ethanol blending in petrol.

The government has formulated a Scheme for Faster Adoption and Manufacturing of Electric and Hybrid Vehicles in India, under the National Electric Mobility Mission 2020 to encourage the progressive induction of reliable, affordable and efficient electric and hybrid vehicles in the country.

The Automobile Mission Plan (AMP) for the period 2006–2016, designed by the government is aimed at accelerating and sustaining growth in this sector. Also, the well-established Regulatory Framework under the Ministry of Shipping, Road Transport and Highways, plays a part in providing a boost to this sector.

2.4 Road Ahead
India’s automotive industry is one of the most competitive in the world. It does not cover 100 per cent of technology or components required to make a car but it is giving a good 97 per cent, as highlighted by Mr Vicent Cobee, Corporate Vice-President, Nissan Motor’s Datsun. Leading auto maker Maruti Suzuki expects Indian passenger car market to reach four million units by 2020, up from 1.97 million units in 2014-15.

The Indian automotive sector has the potential to generate up to US$ 300 billion in annual revenue by 2026, create 65 million additional jobs and contribute over 12 per cent to India’s Gross Domestic Product, as per the Automotive Mission Plan 2016-26 prepared jointly by the Society of Indian Automobile Manufacturers (SIAM) and government.

(Exchange Rate Used: INR 1 = US$ 0.0151 as on November 15, 2015).

3. OBJECTIVE OF THE STUDY
The study is conducted with the objective of analysing the trends and determinants of FDI inflows to Indian Automobile sector.

4. DATA AND METHODOLOGY
In pursuance of the above mentioned objective, the data required for the study are collected through secondary sources like official publications, publications of Government of India, Department of Industrial Policy and promotion, RBI publications etc., The collected data is analysed using the appropriate statistical tools.

5. ANALYSIS AND INTERPRETATION
Table 1: Trends in FDI inflows to India

<table>
<thead>
<tr>
<th>Year</th>
<th>FDI Inflow (US $ Millions)</th>
<th>Percentage Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>34847</td>
<td>-8%</td>
</tr>
<tr>
<td>2011-12</td>
<td>46556</td>
<td>+34%</td>
</tr>
</tbody>
</table>
The above table shows that the FDI inflows to India have fluctuated year after year from -8% to 24%. During the recent year 2014-15 the FDI inflows have increased from US$ 36046 million to US$ 44877 million due to the expectations of Make in India Policy towards developing the nation which may yield more income to the investors.

Table 2: FDI inflows to Indian Automobile industry from 2010-11 to 2014-15

<table>
<thead>
<tr>
<th>Year</th>
<th>FDI Inflow (US $ Millions)</th>
<th>Percentage Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>1331</td>
<td>+10%</td>
</tr>
<tr>
<td>2011-12</td>
<td>923</td>
<td>-31%</td>
</tr>
<tr>
<td>2012-13</td>
<td>1537</td>
<td>+67%</td>
</tr>
<tr>
<td>2013-14</td>
<td>1517</td>
<td>-1.3%</td>
</tr>
<tr>
<td>2014-15</td>
<td>2570</td>
<td>+69%</td>
</tr>
</tbody>
</table>

The FDI inflows to the automobile sector has also fluctuated a lot with highest amount of US$ 2570 million in the year 2014-15 and lowest being at US$ 923 million in the year 2011-12. This shows that there is a drastic change in the automobile sector and new investments are taking place which may lead to new innovations in the sector and the development of the nation.

Table 3: Percentage share of FDI of Automobile Industry in total FDI inflow

<table>
<thead>
<tr>
<th>Year</th>
<th>Total FDI Inflow (US $ millions)</th>
<th>FDI inflow to Automobile Industry (US $ millions)</th>
<th>Percentage Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>34847</td>
<td>1331</td>
<td>3.8%</td>
</tr>
<tr>
<td>2011-12</td>
<td>46556</td>
<td>923</td>
<td>1.9%</td>
</tr>
<tr>
<td>2012-13</td>
<td>34298</td>
<td>1537</td>
<td>4.4%</td>
</tr>
<tr>
<td>2013-14</td>
<td>36046</td>
<td>1517</td>
<td>4.2%</td>
</tr>
<tr>
<td>2014-15</td>
<td>44877</td>
<td>2570</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

From the above table it can be said that 5.7% of the total FDI inflow is been catered towards to the automobile sector. This indicates that the more amounts of FDI are flowing to the automobile sector leading to the development of the sector.

6. Determinants of FDI inflows to Indian Automobile Industry

According to the OLI paradigm of Dunning, the presence of ownership-specific competitive (O) advantages in a transnational corporation, the presence of locational advantages (L) in a host country, and the presence of superior commercial benefits internally in a firm (I) are three important set of determinants which influence the FDI inflows.
Market size
Larger market size should receive more inflows than that of smaller countries having lesser market size. Market size is generally measured by Gross Domestic Product (GDP), GDP per capita income and size of the middle class population. It is expected to be a positive and significant determinant of FDI flows (see: Lankes and Venables, 1996; Resmini, 2000; Duran, 1999; Garibaldi, 2002; Bevan and Estrin, 2000; Nunes et al., 2006; Sahoo, 2006). In contrast, Holland and Pain (1998) and Asiedu (2002) capture growth and market size as insignificant determinants of FDI flow.

Economic stability and growth prospects
A country which has a stable macroeconomic condition with high and sustained growth rates will receive more FDI inflows than a more volatile economy. The proxies measuring growth rate are: GDP growth rates, Industrial production index, Interest rates, Inflation rates (see: Duran, 1999; Dassgupta and Ratha, 2000). Contradictingly, when inflation is taken as proxy for the level of economic stability, then the classic symptoms of fiscal or monetary control will result in unbridled inflation. In connection with this, investors prefer to invest in more stable economies that reflect a lesser degree of uncertainty (see: Nonnenberg and Mendonca, 2004). Therefore, it is expected that GDP growth rate, Industrial production index, Interest rates would influence FDI flows positively and the Inflation rate would influence positively or negatively.

Labour cost
Higher labour cost would result in higher cost of production and is expected to limit the FDI inflows; therefore, we expect the negative and significant relationship between labour cost and FDI. Labour cost can be proxied by wage rate (see: Lankes and Venables, 1996; Nunes et al 2006). There are few studies which find labour force determining FDI flows positively, (see: Wheeler and Mody, 1992; Kumar, 1994; Sahoo, 2006). However, Resmini (2000) did not confirm the significance of wages, perhaps because of using wages that are uncontrolled for productivity and exchange rates (Bevan and Estrin, 2004).

Infrastructure facilities
The well-established and quality infrastructure is an important determinant of FDI flows. On the other hand, a country which has opportunity to attract FDI flows will stimulate a country to equip with good Infrastructure facilities. Therefore, we expect positively significant relationship between FDI and Infrastructure. The previous studies of Wheeler and Mody (1992), Kumar (1994), Loree and Guisinger (1995) and Asiedu (2002) also support our expected hypothesis. The availability of quality Infrastructure can be constructed by considering Electricity, Water, Transportation and Telecommunications (see: Sahoo, 2006). Whereas, Nunes et al. (2006) consider public expenditure on capital to acquire fixed capital assets, land, intangible assets and non-financial and non-military assets for Infrastructure.

Trade openness
Trade openness is considered to be a key determinant of FDI as represented in the previous literature; much of FDI is export oriented and may also require the import of...
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Complementary, intermediate, and capital goods. In either case, volume of trade is enhanced and thus trade openness is generally expected to be a positive and significant determinant of FDI (see: Lankes and Venables, Int. Journal of Business Science and Applied Management / Business-and-Management.org 6 1996; Holland and Pain, 1998; Asiedu, 2002; Sahoo, 2006). Trade openness is proxied as the ratio of the Export plus Import divided by GDP (Nunes et al. 2006; and Sahoo, 2006).

- **Currency valuation**

  The strength of a currency (Exchange rate) is used as proxy for level of inflation and the purchasing power of the investing firm. Devaluation of a currency would result in reduced exchange rate risk. As a currency depreciates, the purchasing power of the investors in foreign currency terms is enhanced, thus we expect a positive and significant relationship between the currency value and FDI inflows. The currency value can be proxied by the Real Exchange Rate, Real Effective Exchange Rate (REER) and Nominal Effective Exchange Rate (NEER).

- **Gross Capital Formation**

  In a transition economy, improvements in the investment climate help to attract higher FDI inflows. It translates into higher Gross capital formation which in turn leads to greater economic growth. Libor Krkoska (2001) and Lipsey (2000) find little evidence of FDI having an impact on capital formation in developed countries and observe that the most important aspect of FDI in the selected sample of countries is related to ownership change. The relationship between FDI and Capital Formation is not simple (Libor Krkoska, 2001). In the case of certain privatization, it may not lead to increase at all or even result in reduction. Thus, the unclear relation between FDI and capital formation may also hold in a transition economy. However, a positive or negative and significant relationship between FDI and Capital Formation is expected.

7. **CONCLUSION**

FDI has helped the Indian economy grow and the government continues to encourage more investments of this sort. Attracting foreign direct investment has become an integral part of the economic development strategies for India. FDI has been a booming factor that has bolstered the economic life of India. Over the years FDI flow is increasing. However India has tremendous potential for absorbing greater flow of FDI in the coming years. Due to the introduction of Make in India policy the Government of India is expecting to receive more amounts of FDI inflows and thus the country can develop in all the sectors.

8. **REFERENCES**
