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Editorial Board

Title

FOREIGN DIRECT INVESTMENT ON INDIA'S AUTOMOBILE SECTOR

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Abstract:

FDI Inflows to Automobile Industry have been at an increasing rate as India has witnessed a major economic liberalization over the years in terms of various industries. The automobile sector in India is growing by 18 percent per year.

The major investing countries are Mauritius (mainly routed from developed countries), USA, Japan, UK, Germany, the Netherlands and South Korea. 24. India needs to worry on the foreign direct investment (FDI) front. Direct Investment Inflows in India-Opportunities and Benefits, Important Aspects of FDI in Automobile Industry, Recent FDI Trends in India, The major foreign players who have a significant role in the development of Indian automobile industry, were discussed and the passenger car segment growth, Production, sales and Investment were analyzed.. Here the researcher using three statistical tool for analyzing the study, **ARIMA, Linear & Compound Model** for analysis purpose to measure future prediction using time series analysis. Hence this study necessitated the causes and impact of FDI flows in automobiles sector and also policy regulation, FDI flows in passenger car segment and recent FDI trend in this sector were discussed.

Key words: FDI inflows, automobile sector, passenger car, growth rate and policy regulation.

1. INTRODUCTION:

International capital flows have significant potential benefits for economies around the world. Countries with sound macroeconomic policies and well functioning institutions are in the best position to reap the benefits of capital flows and minimize the risks. Much of these capital flows is due to trade in equity and debt markets. FDI inflows mainly on the basis of issue/transfer of equity/preference shares of Indian companies to foreign direct investors. In recent years, India has emerged as a desirable location for FDI by investors from the United States and many other countries. Its rapidly growing economy, low wages and educated work force have attracted FDI in the services and manufacturing sectors to serve both the Indian market and third country markets. Foreign investors' enthusiasm for India, however, has been tempered by widespread poverty, rigidity in the labour market, rising salaries and high employee turnover in some industries, an antiquated infrastructure, weakens in the overall educational system and excessive bureaucracy and corruption.(1- PetrPavlÃnek University of Nebraska, Omaha, Restructuring of Polish Passenger Car Industry through FDI, Journal Eurasian Geography and Economics, p 353. sep 2007.)

FDI is the process whereby residents of one country (the home country) acquire ownership of assets for the purpose of controlling the production, distribution and other activities of a firm in another country (the host country). Foreign direct investment (FDI) is a measure of foreign ownership of productive assets, such as factories, mines and land. Increasing foreign investment can be used as one measure of growing economic globalization. According to International Monetary Fund (IMF) definition, FDI has three components, viz., equity capital, reinvested earnings and other direct capital. A large number of countries, including several developing countries report FDI inflows in accordance with the IMF definition, which include reinvested earnings and other direct capital flows, besides equity capital. India has become the center of attraction for global car makers given the immense opportunity with mid-income masses aspiring to own a car as well as abundance of raw materials and low-cost labour. Favourable Foreign Direct Investment (FDI) policy makes the entry of international players easy into India. Various manufacturers are envisaging India as the hub for small car production which CARE Research believes will drive the car exports from our country. (Research & Markets: The 'Indian Passenger Vehicle Industry' India Report 2010).

1.2: <u>Introduction & Background of the study</u>

Foreign Direct Investment capital flows into India have increased dramatically since 1991, when India's opened it economy in FDI, and inflows have accelerated since 2000. FDI inflows into India reached $ 11.1 billion in calendar year 2006 almost double in the year 2005 and are expected to continue increasing after 2010.(Global FDI has experienced a corresponding resurgence since 2004, after declining for several years in the early 200s. FDI inflows into India declined between 2001 and 2003, before experiencing a resurgence that surpassed average global growth, with a year on-year increased. (UNTAD, world report 2006, data based on official Indian government.)During the nineties, foreign direct investment (FDI) accounted for an increasing share of private capital flows to developing countries. According to the World Investment Report 2002 (WIR02) published by United Nations Conference on Trade and

Development (UNCTAD), developing countries received 28 per cent of the world FDI inflows in 2001. Global FDI inflows have, however, declined by 51 per cent in 2001, which also affected the flow to developing countries. Developing countries witnessed a 14 per cent decline in FDI inflows in 2001 to US $ 205 billion from US $ 238 billion in 2000. A few developing countries like China and India, however, registered increased FDI inflows in 2001, which is indicative of their attractiveness for international investment.

1.3: Mauritius is the most preferred route for directing FDI into India while Singapore is the second largest contributor.

India needs to worry on the foreign direct investment (FDI) front. According to the statistics released by India's Ministry of Commerce and Industry, the country has received only $18.35 billion in FDI in the first 11 months (April-February) of the financial year 2010-2011, compared to $24.63 billion that came in the 11 months of the previous financial year. Although it is a significant dip, the government has not mentioned the reasons for the fall except for saying that the "trend will be reversed as it has received a few proposals for FDI". (Anand Sharma, Minister for Commerce & Industry- April 2011.) The FDI inflow in the full financial year (April-March) of 2009-2010 was $25 billion. Going by the current data, it is unlikely that India has recorded large numbers in March 2011, to beat last year's FDI inflow.

1.4: Purpose and Scope of the study

The FDI in Automobile Industry has experienced huge growth in the past few years. The increase in the demand for cars and other vehicles is powered by the increase in the levels of disposable income in India. The automobile industry in India is growing by 18 percent per year. The automobile sector in India was opened up to foreign investments in the year 1991. 100% Foreign Direct Investment (FDI) is allowed in the automobile industry in India. The production level of, the automobile sector has increased from 2 million in 1991 to 9.7 million in 2006 after the participation of global players in the sector.

India is the second largest country is the world with a population of over one billion people. As a developing country, India's economy is characterized by wage rates that are significantly lower than those in most developed countries. These two traits combine to make India a natural destination for foreign direct investment (FDI). Until recently, however, India has attracted only a small share of global FDI, primarily due to government restrictions on foreign involvement in the economy. But beginning in 1991 and accelerating rapidly since 2000, India has liberalized its investment regulations and actively encouraged new foreign investment, a sharp reversal from decades of discouraging economic integration with the global economy.

Net capital flows are expected to witness a decline in the last quarter of 2010-11, the Centre for Monitoring Indian Economy (CMIE). Net capital flows had shot up to $ 20.5 billion in the September, 2010, quarter on the back of strong inflows in the portfolio investments account. According to SEBI data, FIIs pulled out over $ 2.2 billion from the equity market in January and February.

Foreign Direct Investment (FDI) is, however, expected to continue to grow at a healthy pace. This is because the Indian economy is likely to grow at a faster pace than most international economies. The CMIE expects $ 4.5 billion worth of FDI to flow into India by the end of the March, 2011, quarter. (Article, Press Trust of India, April 3, 2011, Mumbai.)

India is emerging as one of the world's fastest growing passenger car markets and second largest two wheeler manufacturer. It is home for the largest motor cycle manufacturer and fifth largest commercial vehicle manufacturer. The industry is producing about 13 lakhs passenger vehicles, 4 lakhs commercial vehicles, 76 lakhs two wheelers and about 3 lakhs tractors per annum. (Automotive Mission Plan 206-2016) The Indian tier industry, which is an integral part of Indian Automotive Industry has registered a turnover of almost US $ 3 billion.

We presents two methods of analysis, that hold special interest on FDI inflows in Automobile industries and other study shows a special effects on passenger car segment growth rate. Other chapter explains automobile industries growth, production, sales, export and Import rates, Passenger car growth rates and other inflows and outflows.

1.5: METHODOLOGY

- In our study we focused on FDI flows, which has become a very important source of capital to developing countries.

- This section of the study presents the empirical results of the impact of FDI flows in India's economic growth in automobiles sector after post liberalization era, especially with passenger car segment.
- The result will be based on regression analysis.
- The period of study is from 1991 to 2011 collection of FDI flows to India.
- To collect data for the study is on FDI flows, selection of industry is based on more FDI flows on Automobile Industry before and after recession.

The automobile industry in India does not belong to the licensed agreement. Import of components is allowed without any restrictions and also encouraged. Hence, the study is focused on the data particularly in automobiles sector-sub sector of Heavy and Light vehicles- passenger car segment.

1.6: OBJECTIVES

1. The main objective of this study is to analyse the FDI inflows in India in Automobile Industries with special reference to passenger car segment.
2. To examine the trends and composition of FDI flows
3. To Examine the source of FDI on Economic Growth
4. To identify the problem faced by India in FDI growth in Automobile sector and suggest the policy implication thereof.
5. To compare and anlyse the FDI inflows in passenger car segment with growth rate.
6. To rank the Companies based upon highest FDI inflows with passenger car production, sales, export and ivestment.
7. To find out the co relation between FDI in all secotors in automobile & passenger car segment.

2.: INDIAN AUTOMOBILE INDUSTRY AND TRENDS AN OVERVIEW:

The auto industry in India is the ninth largest in the world. After Japan, South Korea and Thailand, in 2009, India emerged as the fourth largest exporter of automobiles. Several Indian automobile manufacturers have spread their operations globally. Indian auto industry, which is currently growing at the pace of around 18 % per annum, has become a hot destination for global auto players like Volvo, General Motors and Ford. The Indian automobile industry is going through a phase of rapid change and high growth. With new projects coming up on a regular basis, the industry is undergoing technological change. The major players are expanding their plants and focusing on mass customization, mass production.(QPAC Indian Automobile industry Apr-Jun 2010)

TABLE:1_ THE PRODUCTION OF AUTOMOBILES

Year	Car Production	% Change	Commercial	% Change	Total Vehicles Production	% Change
2010	2,814,584	29.39	722,199	54.86	3,536,783	33.89
2009	2,175,220	17.83	466,330	-4.10	2,641,550	13.25
2008	1,846,051	7.74	486,277	-9.99	2,332,328	3.35
2007	1,713,479	16.33	540,250	-1.20	2,253,999	10.39
2006	1,473,000	16.53	546,808	50.74	2,019,808	19.36
2005	1,264,000	7.27	362, 755	9.00	1,628,755	7.22
2004	1,178,354	29.78	332,803	31.25	1,511,157	23.13
2003	907,968	28.98	253,555	32.86	1,161,523	22.96
2002	703,948	7.55	190,848	19.24	894796	8.96
2001	654,557	26.37	160,054	-43.52	814611	1.62
2000	517,957	-2.85	283,403	-0.58	801360	-2.10
1999	533,149		285,044		818193	

Source: SIAM Industry statistics 2010

The production of automobiles has greatly increased in the last decade

2.1: Vehicle Registration

India had over 100 million vehicles registered on its roads in the year 2008.This is a growth of about 100% in the past 9 years. Over 77% and about 77 million of these vehicles are two wheelers, about 14% and over 14 million are cars, jeeps and taxis. Over 5 million and over 1 million vehicles registered are goods vehicles and buses respectively. Two wheelers account a significant market share. Tata Motors with the launch of Tata Nano is trying to attract some of these two wheeler buyers to buy a small, cheap and affordable passenger car.

TABLE:2-Total Number of Vehicle Registrations in India from 2001 to 2008(in 000)

Year	All Vehicles (in 000)	Two wheelers	Car, Jeeps And Taxi	Buses	Goods Vehicles	Other Vehicles
2001	54,991	38,556	7,058	634	2,948	5,795
2002	58,924	41,581	7,613	635	2,974	6,121
2003	67,007	47,519	8,599	721	3,492	6,676
2004	72,718	51,922	9,451	768	3,749	6,828
2005	80,045	57,417	10,460	822	4,053	7,337
2006	88,068	63,487	11,571	879	4,345	7,891
2007	96,808	70,141	12,810	936	4,652	8,464
2008	106,591	77,588	14,222	1,003	5,018	9,065

Source: SIAM Industry Statistics 2010

2.2: Future Plans:

The Government has prepared a ten-year Automotive Mission Plan (AMP) to draw a future plan of action and remove obstacles in the way of competition, such as that required infrastructure be put in place well in time to alleviate its constraining impact on the growth.

The plan envisages a tax holiday for the industry on investments exceeding $225,000, 100% tax deductions of export profits, and deductions of 50% on foreign-exchange earnings. It also calls for a one-stop clearance for foreign-direct-investment proposals in the sector and deductions of 30% of net income for 10 years for new industrial undertakings. To bring down the cost of power and fuel, which accounts for 6% of the manufacturing costs in the auto sector, captive power generation would be encouraged to enable industries to access reliable, quality and cost-effective power. **(Business Line, Friday, March 08, 2010)**

Ford India's plan is to crowd the market with eight new cars by 2015. is tight-lipped on the cars that will come in, but hints at a mix: "You have to have small cars, plus aspirational vehicles that people move up to as they move up the economic demographic. Another (successful) hatchback would have helped consolidate the gains registered by Figo. The surprise is all the more so because the company has the Fiesta hatchback, which is built on the same platform as the new Fiesta. With a bit of tailoring for Indian conditions, Fiesta hatchback would have given it something to shout about in the premium hatchback segment.

This segment is the fastest-growing in the industry, and has cars such as Maruti's Swift and Ritz, Hyundai's i10 and i20, Skoda's Fabia, Nissan's Micra, and Volkswagen's Polo. Apart from Fabia, the other cars have brought major gains for their companies. The i20, for instance, priced at Rs 5-7 lakh, has been a roaring success, matching the much cheaper Figo in sales last year. The Ford company will meet its ambitious goals for growth in China and India by greatly expanding its product offerings. Over the next several years. The automaker will have more cars that are smaller than its subcompact Fiesta in China and India, which will mean less profit per vehicle. (Head, Ford Motor Co operations in Asia, Business World –June 2011.)

That might be a missed opportunity, especially as competition is increasing. GM is soon to launch a diesel version of its hatchback Beat, which could give the diesel Figo a run for its money. GM is also likely to bring in a Chinese hatchback based on the Chevrolet Sail platform this year Toyota and Honda are giving final touches to their hatchbacks, Etios Liva and Brio, respectively. Both are slated for launch this year, and are expected to give tough competition to incumbents, including Maruti and Hyundai. Even Maruti is planning to launch the new Swift (and Dzire) sometime this year. (Boneham, Chinese Checkers In Indian Market, Page 30).

2.3: India Face Tough Times To Meet FY12 Revenue Target:

With most economic indicators showing signs of slowdown, the government is worried revenues may fall short of expectations, India face a difficult task to achieve revenue collections because of slowing growth, senior officials said on Wednesday, indicating the government may come under increasing pressure to meet its fiscal deficit target.

The government had projected Rs 3.98 trillion rupees ($89.2 billion) from indirect taxes and Rs 5.33 trillion from direct taxes in the budget for the fiscal year ending next March. With most economic indicators showing signs of slowdown, the government is worried revenues may fall short of expectations. Growth in January to March was the slowest in five quarters and many economists have pared their forecast as rising interest rates to battle high inflation begin to bite. It would be difficult to achieve the indirect tax target for 2011-12. Slowdown in revenue receipts may pressure the government's fiscal deficit target of 4.6 percent, but senior officials have ruled out any change in the government's borrowing programme as of now. (S.D. Majumder, chairman of the Central Board of Excise and Customs, Business world, June 2011).

TABLE-3 FOREIGN INVESTMENT INFLOWS IN AUTOMOBILE INDUSTRY (1991-2011)

Year	A. Direct Investment Rs. Crore	US $ million	B. Portfolio Investment Rs. Crore	US$ million	TOTAL (A+B) Rs. Crore	US$ million
1	2	3	4	5	6	7
1990-91	174	97	11	6	185	103
1991-92	316	129	10	4	326	133
1992-93	965	315	748	244	1713	559
1993-94	1838	586	11188	3567	13026	4153
1994-95	4126	1314	12007	3824	16133	5138
1995-96	7172	2144	9192	2748	16364	4892
1996-97	10015	2821	11758	3312	21773	6133
1997-98	13220	3557	6794	1828	20014	5385
1998-99	10358	2462	-257	-61	10101	2401
1999-00	9338	2155	13112	3026	22450	5181
2000-01	18406	4029	12609	2760	31015	6789
2001-02	29235	6130	9639	2021	38874	8151
2002-03	24367	5035	4738	979	29105	6014
2003-04	19860	4322	52279	11377	72139	15699
2004-05	27188	6051	41854	9315	69042	15366
2005-06	39674	8961	55307	12492	94981	21453
2006-07	103367	22826	31713	7003	135080	29829
2007-08	138276	34362	109741	27271	248017	61633
2008-09	161481	35168	-63618	-13855	97863	21313
2009-10	188815	37763	161880	32376	350695	70139
2010-11	135120	27024	157355	31471	292475	58495

Source: Table No. 6.2.(vi):FDI In Automobile Industry, *(as on 31.12.2009, DIPP & RBI monthly bulletin statistics 2011)* Data for 2007-08 and 2008-09 are provisional.

1. Data from 1995-96 onwards include acquisition of shares of Indian companies by non-

residents under Section 6 of FEMA, 1999. Data on such acquisitions are included as part of FDI since January 1996.

1) Data on FDI have been revised since 2000-01 with expanded coverage to approach international best practices.

2) Negative (-) sign indicates outflow.

3) Direct Investment data for 2006-07 include swap of shares of 3.1 billion.

Total investment (direct + Portfolio Investment) was 103 $US million at 1990-91 gradually increased to 15, 699 at 2003-04 and decreased to 21,313 $US million at 2008-09 due to some US crisis it affected the automobile industries and IT industries.

Graph-1: FOREIGN INVESTMENT INFLOWS IN AUTOMOBILE INDUSTRY (1991-2011)

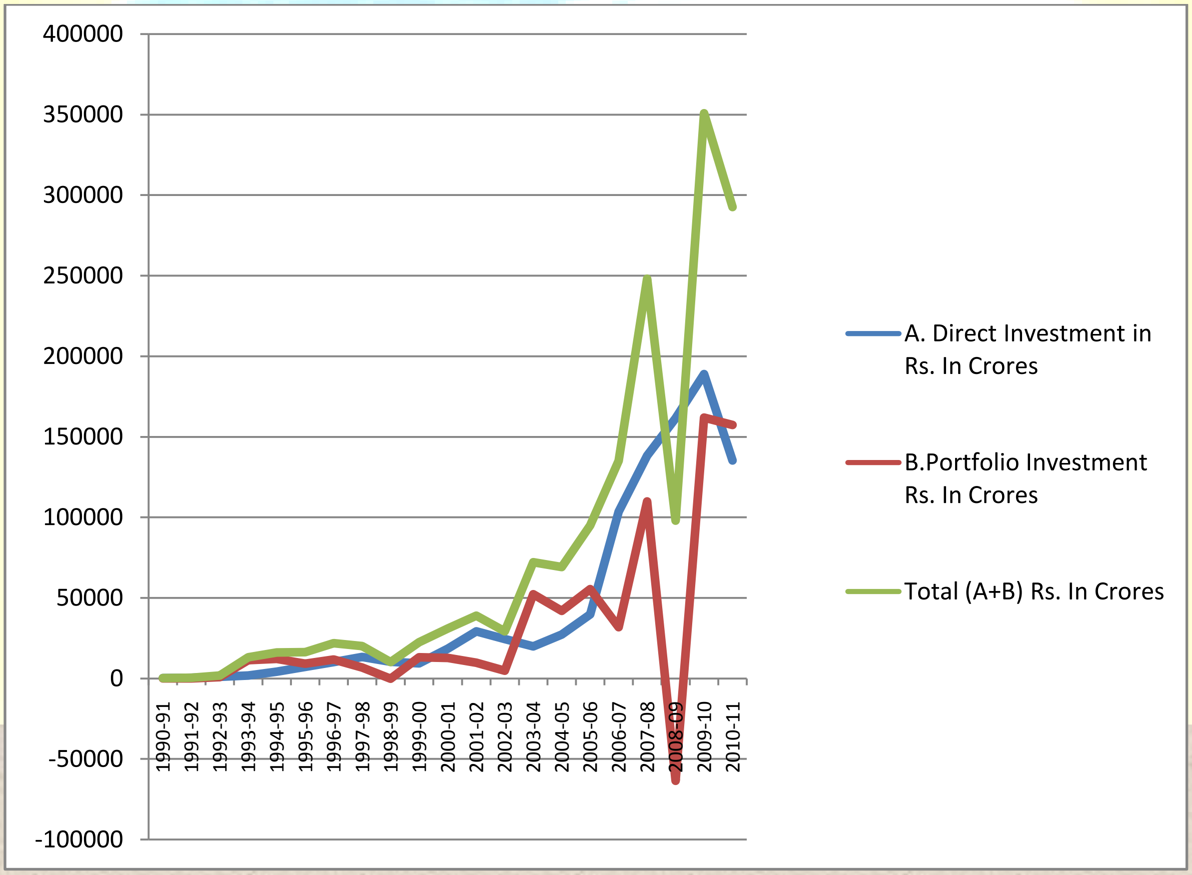


TABLE: 3(A) Correlations

		Direct Investment	Portfolio Investment
Direct Investment	Pearson Correlation	1	.563(**)
	Sig. (2-tailed)	.	.010
	N	20	20
Portfolio Investment	Pearson Correlation	.563(**)	1
	Sig. (2-tailed)	.010	.
	N	20	20

** Correlation is significant at the 0.01 level (2-tailed).Linear Model: Y = a + bt ,

Y = -42998+8586.16, Compound Model: Y = a (bt)

TABLE:3 (B) Compound Model Result for Investments:

	LinearModel	Compound Model	L	C	L	C
	Direct Investment		Portfolio Investment		Total Investment	
R Square	0.697	0.908	0.327	---	0.646	0.815
F Value	41.38	178.25	8.76	---	32.86	79.15
P Value	0.000	0.000	0.008	---	0.000	0.000
A	-42998	902.280	-23336	---	-66334	2141.39
B	8586.16	1.3217	5260.85	---	13847.0	1.2927

Annual rise = 8586.16 x 100 = 85 therefore 15 % decreasedGrowth rate= 32.17 % increased on direct investment, 48 % decreased in portfolio investment and then 38 % increased in total investment.

TABLE-4: FDI-GROWTH RATE-FOR AUTOMOBILE (%)

Year	PAT %	Sales %	Total Income
1991-92	0.0	11.5	1.4
1992-93	0.0	4.2	8.2
1993-94	0.0	21.0	17.8
1994-95	228.6	35.6	33.0
1995-96	62.8	32.4	36.6
1996-97	16.1	19.2	18.6
1997-98	-4.8	-2.9	-3.8
1998-99	-30.2	1.4	4.2
1999-00	-16.0	32.0	23.4
2000-01	0.0	0.2	1.9
2001-02	0.0	2.3	3.2
2002-03	139.4	12.0	13.8
2003-04	69.6	22.2	24.4
2004-05	33.2	25.9	24.8
2005-06	36.5	14.8	15.9
2006-07	25.4	25.2	25.7
2007-08	12.2	11.1	11.5
2008-09	-31.4	3.4	3.4
2009-10	92.3	25.0	24.2

Source: Corporate Sector, CMIE, May 2000, Jan 2011, page-12 & 44

Graph-2: FDI-GROWTH RATE-FOR AUTOMOBILE

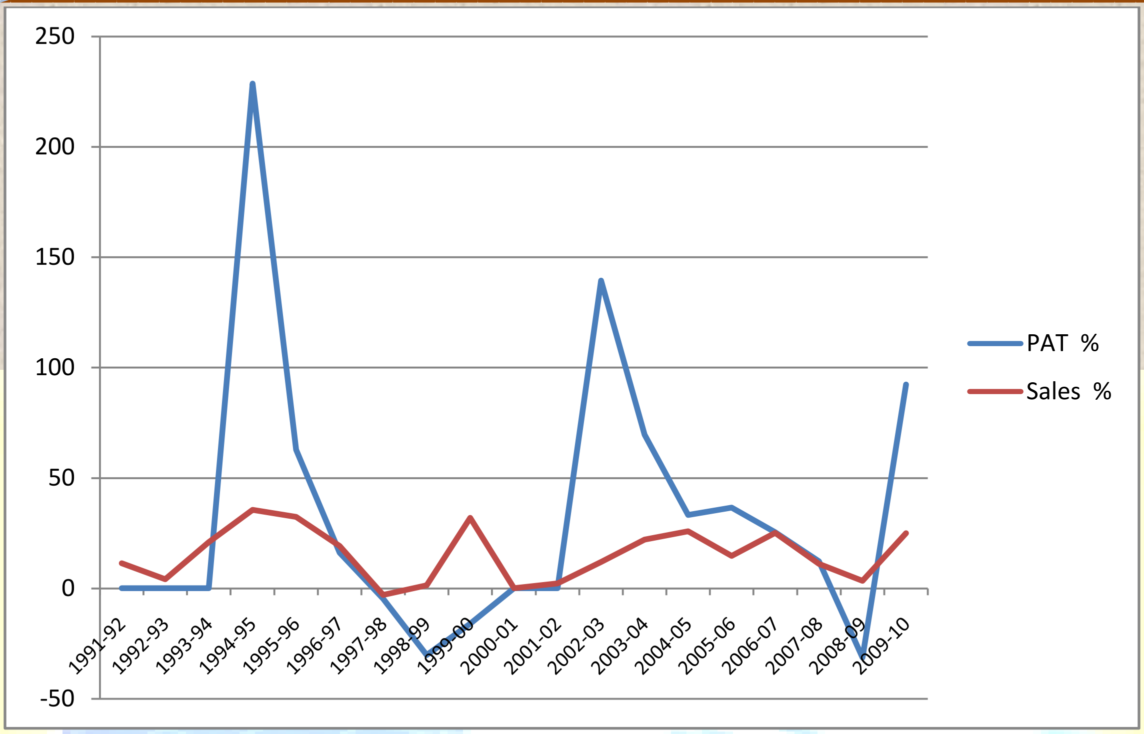


TABLE-5: AUTO COMPONENT INDUSTRY-STATISTICS: (Growth Rate-GR-%)

(Value in US $ Billion)

Year	Turn Over G.R %	Export G.R %	Imports G.R %	Investment G.R %	Imports As % of Turnover	Exports As % of Turnover
2004-05	8.70 29 %	1.69 34 %	1.90 33 %	3.75 21 %	22	20
2005-06	12.00 38 %	2.47 46 %	2.48 30 %	4.40 17 %	21	21
2006-07	15.00 25 %	2.67 8 %	3.60 45 %	5.40 23 %	24	18
2007-08	18.00 20 %	3.52 32 %	5.22 45 %	7.20 33 %	29	20
2008-09	18.40 2 %	3.80 8 %	6.80 30 %	7.30 1 %	37	21

2009-10	22.00 20 %	3.80 ---	8.16 20 %	9.00 23 %	37	13
2010-11 Estimated	30.00 35 %	5.00 32 %	10.00 23 %	10.30 14 %	33	17

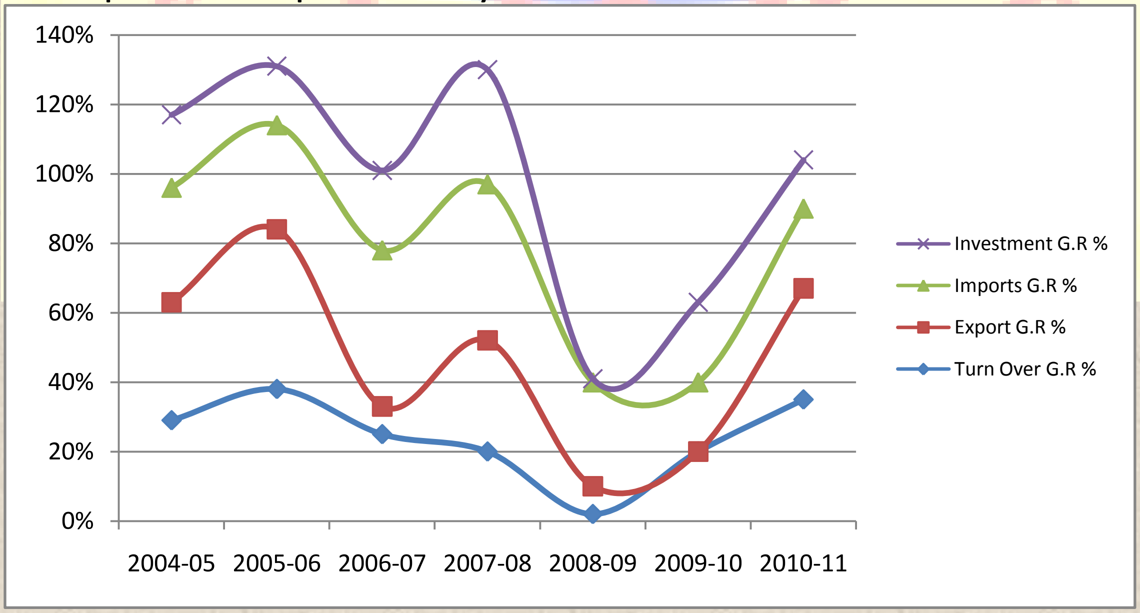
Source: ACMA 2010-11 statistics, p-15.(Turnover includes supplies to OEMs, aftermarket sales and exports but sans imports.)

2.4: Indian Passenger Vehicle Industry:

Introduction: India has become the centre of attraction for global car makers given the immense opportunity with mid-income masses aspiring to own a car as well as abundance of raw materials and low- cost labour. Favorable Foreign Direct Investment (FDI) policy makes the entry of international players easy into India. Various manufacturers are envisaging India as the hub for small car production which Care Research believes will drive the car exports from our country.

Increasing income levels on the one hand and lower cost of ownership with the launch of Nano by Tata Motors on the other would translate into healthy growth of domestic car sales. (Research & market Report on Indian Passenger Vehicle Industry-p1)

Graph-3: Auto Component Industry-Statistics



Graph-4: Auto Component Industry-Statistics

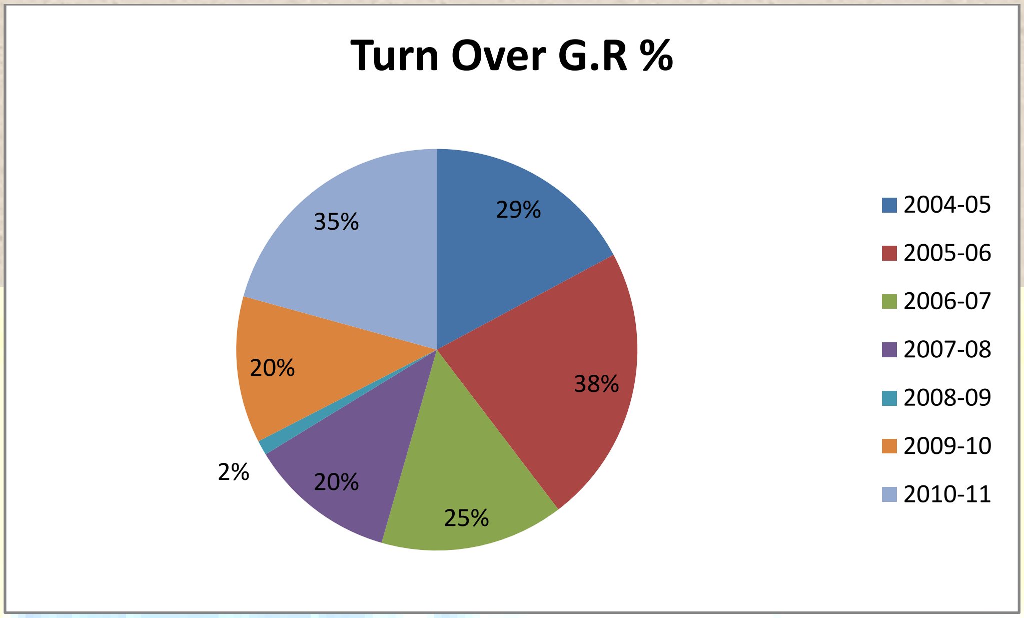


TABLE:5 (A) Linear and Compound Model Result for Auto Components Industry (Growth rate: for Turnover, Import & Export and for Investment value - in US $ Billion)

	Linear Model	Compound Model	L	C	L	C	L	C
	Turnover		Export		Imports		Investment	
R Square	0.935	0.959	0.985	0.984	0.945	0.927	0.978	0.978
F Value	71.84	118.40	322.65	317.28	86.13	63.40	227.11	221.48
P Value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
A	5.25	7.96	-0.10	1.49	1.31	1.64	2.37	3.23
B	3.11	1.20	1.38	1.33	0.49	1.17	1.09	1.18

Annual rise in Turnover is 0.01 percent and annual growth 20 percent increased. In Import annually increased to 31 percent and growth by 64 percent. Annual rise in Export is 38 percent and growth rate increased to 20 percent.

Automobile Sector - The Indian Scenario

The automobile sector has been contributing its share to the shining economic performance of India in the recent years. With the Indian middle class earning higher per capita income, more people are ready to own private vehicles including cars and two-wheelers. Product movements and manned services have boosted in the sales of medium and sized commercial vehicles for passenger and goods transport. Side by side with fresh vehicle sales growth, the automotive components sector has witnessed big growth. The domestic auto components consumption has crossed rupees 9000 crore and an export of one half size of this figure.(*Sowmya Suman-Indian Automobile Industry ProgessArticle-2010)*

TABLE :6: AUTO COMPONENTS INDUSTRY INVESTMENTS

Investments, Import & Export Market size - In US $ billion

Year	Investment US $ billion	Growth Rate %	Import Market size	G.R %	Export Market size	G.R %
2002-03	--	-	-		-	-
2003-04	3.1	17	1.4	-	1.2	-
2004-05	3.8	21	1.9	33	1.7	42
2005-06	4.4	17	2.5	31	2.5	47
2006-07	5.4	23	3.6	45	2.7	8
2007-08	7.2	33	5.2	45	3.5	30
2008-09	7.3	1	6.3	30	3.8	9
2009-10	9.0	23	8.2	20	3.8	0
2010-11	10.3	14	10.0	23	5	32

Source: ACMA- Growing Capabilities of Indian Auto components.p-20.

($ 2.5 bn Investment is expected annually.)

TABLE 5.6 (A) Result for Investments, Import & Export (Market size- in US $ Billion)

	Linear Model	Compound Model	L	C	L	C
	Investment		Import		Export	
R Square	0.977	0.985	0.965	0.992	0.963	0.924
F Value	254.75	391.03	163.25	743.73	158.07	73.21

P Value	0.000	0.000	0.000	0.000	0.000	0.000**
a	1.65	2.68	-0.721	1.09	0.78	1.206
b	1.03	1.18	1.24	1.33	0.49	1.203

** denotes significant at 1 % level.

Annual rise in Investment is 0.03 percent increased and annual growth 18 percent increased.

In Import annually increased to 24 percent and growth by 33 percent.

Annual rise in Export has been decreased and growth increased to 20 percent.

Graph-5: Auto Components Industry Investments

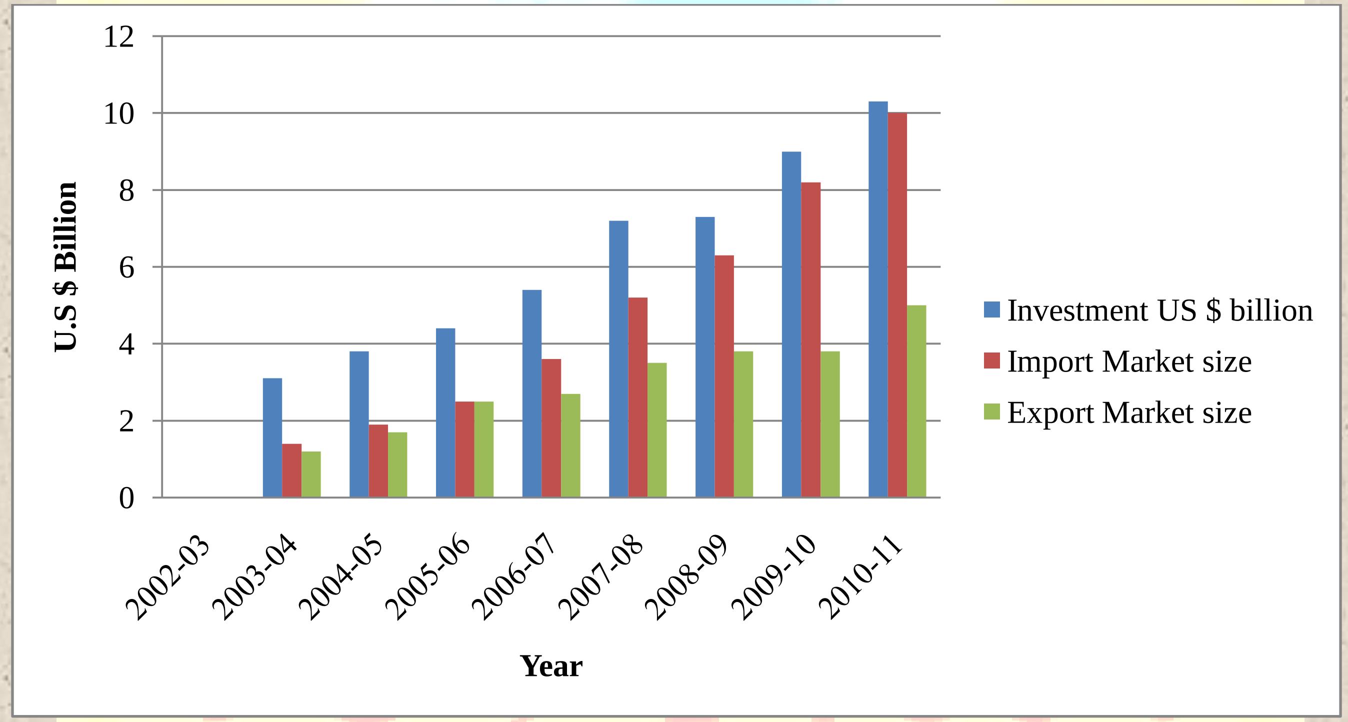


TABLE -7: VEHICLE PRODUCTION IN INDIA (EXPECTED/ESTIMATED)

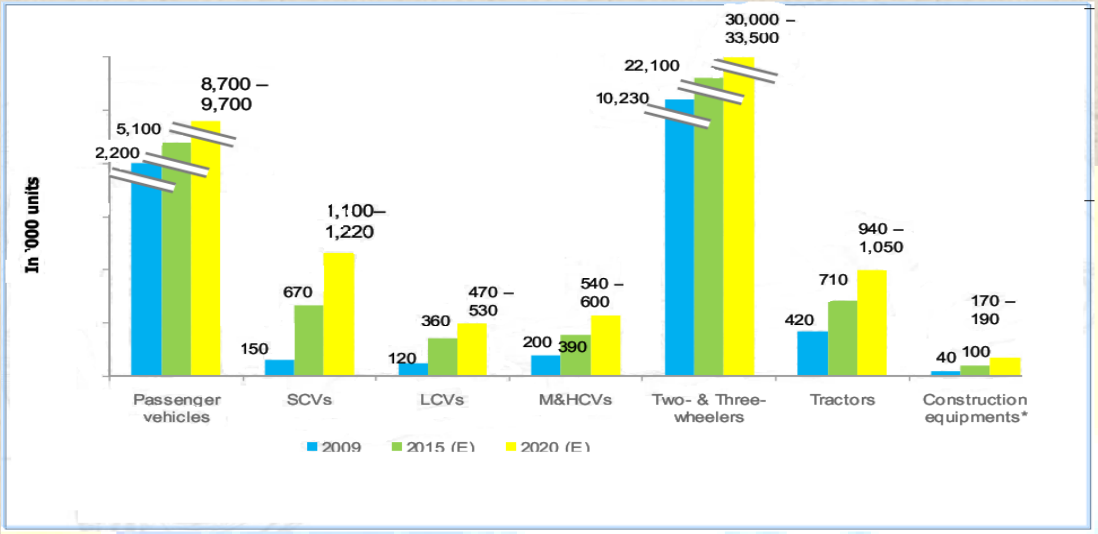
(In '000 units)

YEAR	Passenger Vehicles	SCVs	LCVs	M&HCVs	Two & Three Wheelers	Tractors
2009	2200	150	120	200	10230	420
2010	2987	170	130	267	14175	548
2015 (E)	5100	300	400	720	22075	710

2020 (E)	8700-9700	350	450	870	31618-33500	940-1050

Source: ACMA –EY Vision 2020 –p-13.

Graph-6: Vehicle Production in India



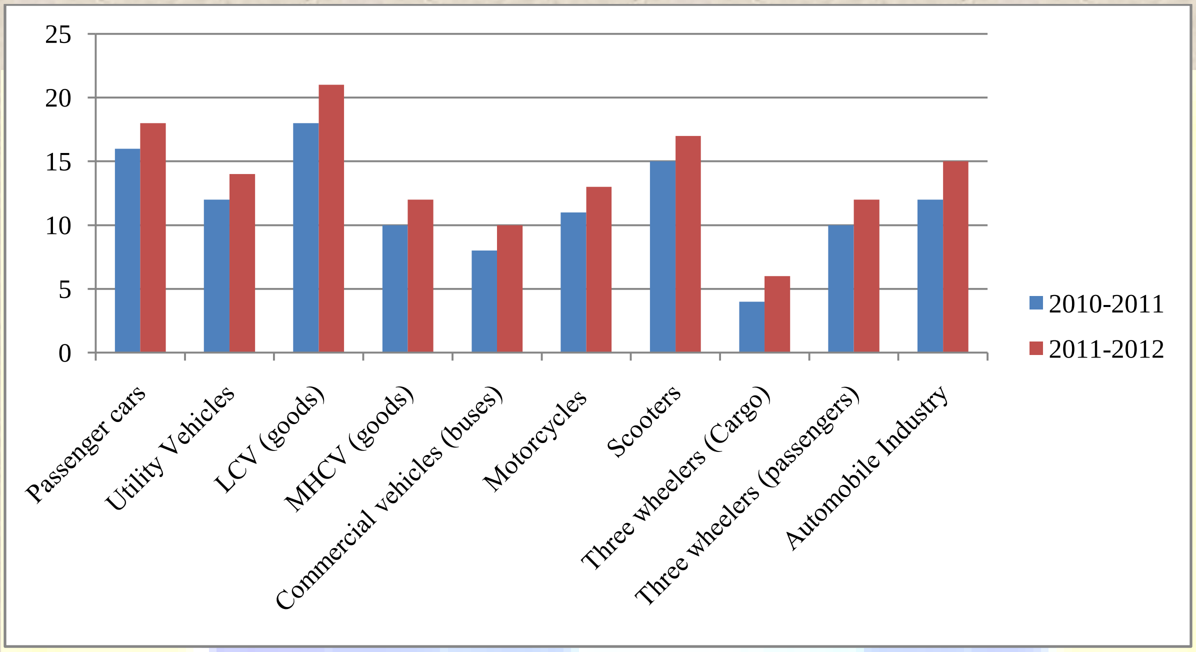
Indian exports of passenger vehicles grew consistently at a CAGR of 34.8% from FY 2001-02 to FY 2005-06, Maruthi, Tata Motors and Hyundai are the key exporters leading markets include Sri Lanka, Algeria, South Africa, United Kingdom and Italy. Passenger vehicle grow from 2798000 units at 2010 when compare to 2200000 units at 2009. All other SCV and LCV expected to grow gradually at 2015.

TABLE .8: Forecasts

Automobile segments	**2011-12 Growth over 2010-11 (per cent)**
Passenger cars	16 -18 %
Utility Vehicles	12 – 14 %
LCV (goods)	18 – 21 %
MHCV (goods)	10 – 12 %
Commercial vehicles (buses)	8 – 10 %
Motorcycles	11 – 13 %
Scooters	15 – 17 %
Three wheelers (Cargo)	4 – 6 %

Three wheelers (passengers)	10 – 12 %
Automobile Industry	12 - 15 %

Graph-7: Forecasts



The above graph clearly explained that the automobile industry growth is confirmed after 2010 in the segments.

TABLE -9: AUTOMOBILE–PASSENGER VEHICLE–TRENDS (Number of Vehicles)

	Exports	Production	Sales
2004-05	166,402	1,209,876	1,061,572
2005-06	175,572	1,309,300	1,143,076
2006-07	198,452	1,545,223	1,379,979
2007-08	218,401	1,777,583	1,549,882
2008-09	335,729	1,838,593	1,552,703

2009-10	446,145	2,357,411	1,951,333
2010-11	453,479	2,987,296	2,520,421

Source: SIAM- Industry Statistics 2011.

TABLE -9(A) Variables in the Model:

	B	SEB	T-VALUE	P VALUE
AR1	-.188	.817	-.230	.832
MA1	-.997	87.286	-.011	.991
YEAR	41449.598	12368.310	4.159	0.252
CONSTANT	-103023330.987	24835581.599	-4.148	0.254

Note: 0 to 0.01 = ** denotes significant at 1 % level

0.011 to 0.05 = * denotes significant at 5 % level & > 0.05 = denotes No significant.

Graph- 8: Automobile–Passenger Vehicle–Trends-Export

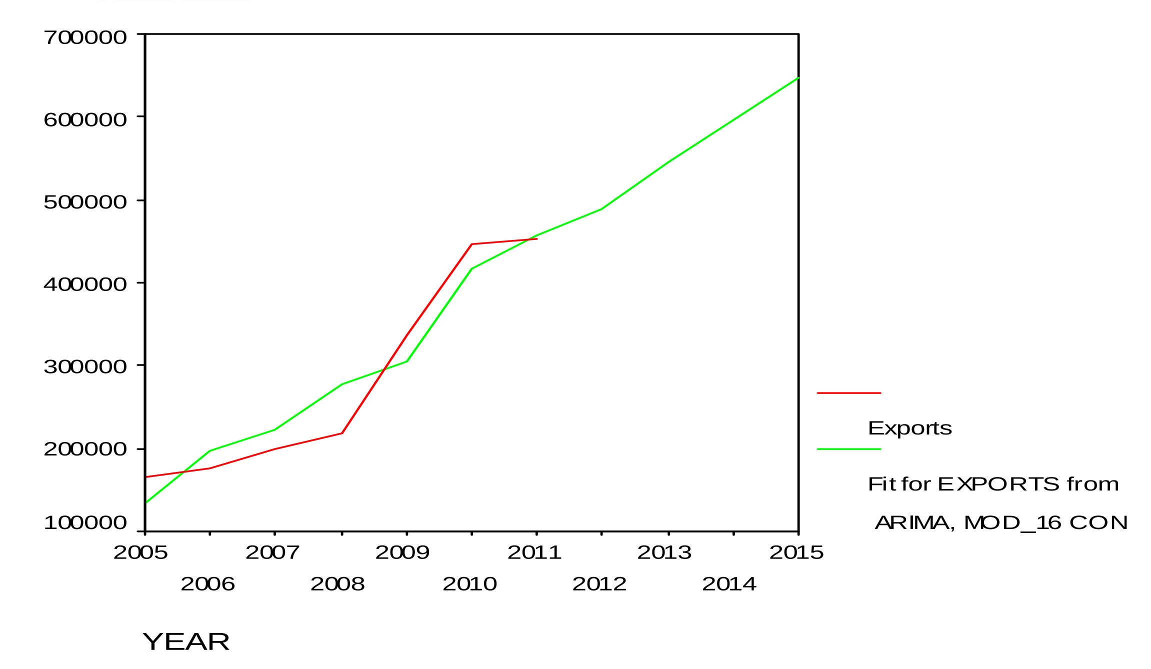


TABLE -9 (B) Arima result for **Automobile Sector:**

	B	**SEB**	**T-VALUE**	**P VALUE**

AR1	-.20122	1.7	-.119	0.912
MA1	-.980	27.9	-.035	.984
YEAR	279527.714	56602.2	4.938	0.159
CONSTANT	-559406969.241	113657231.5	-4.921	0.160

Graph- 9- Automobile–Passenger Vehicle–Trends-Production

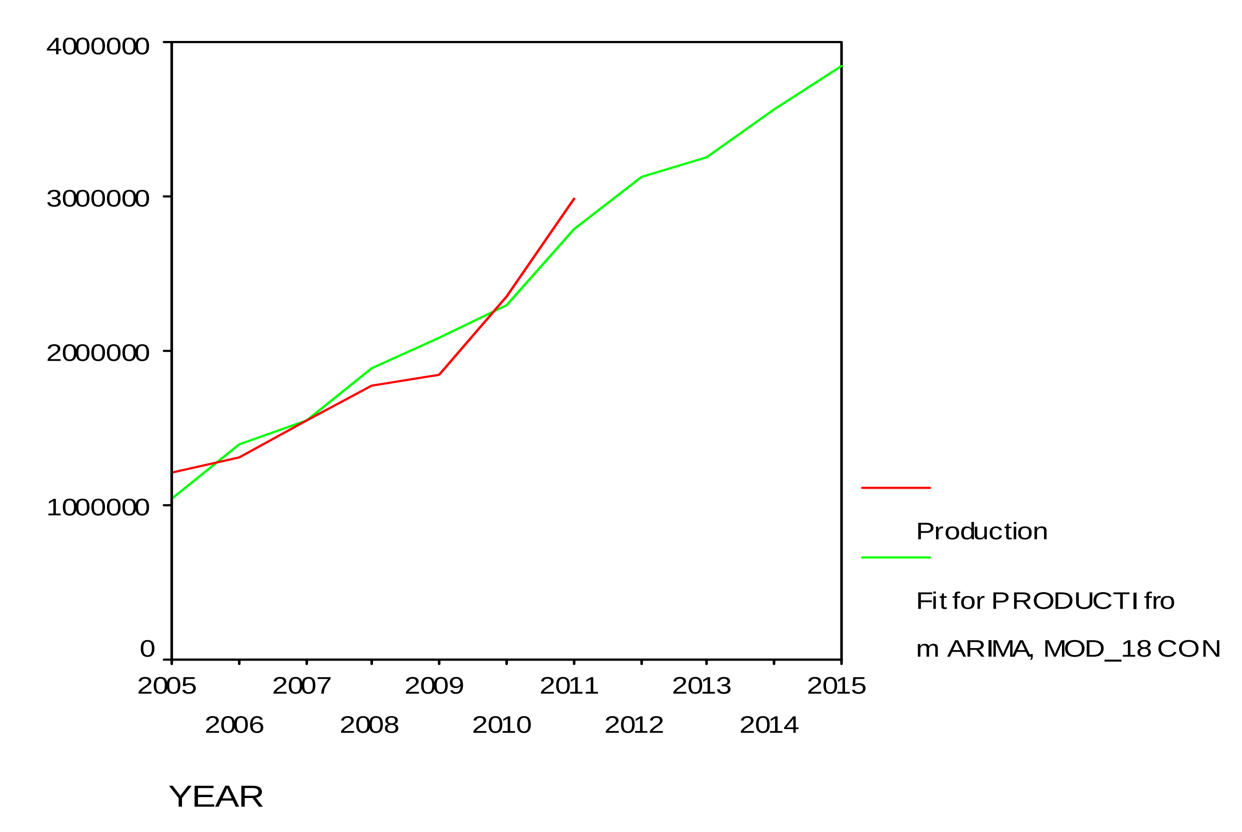
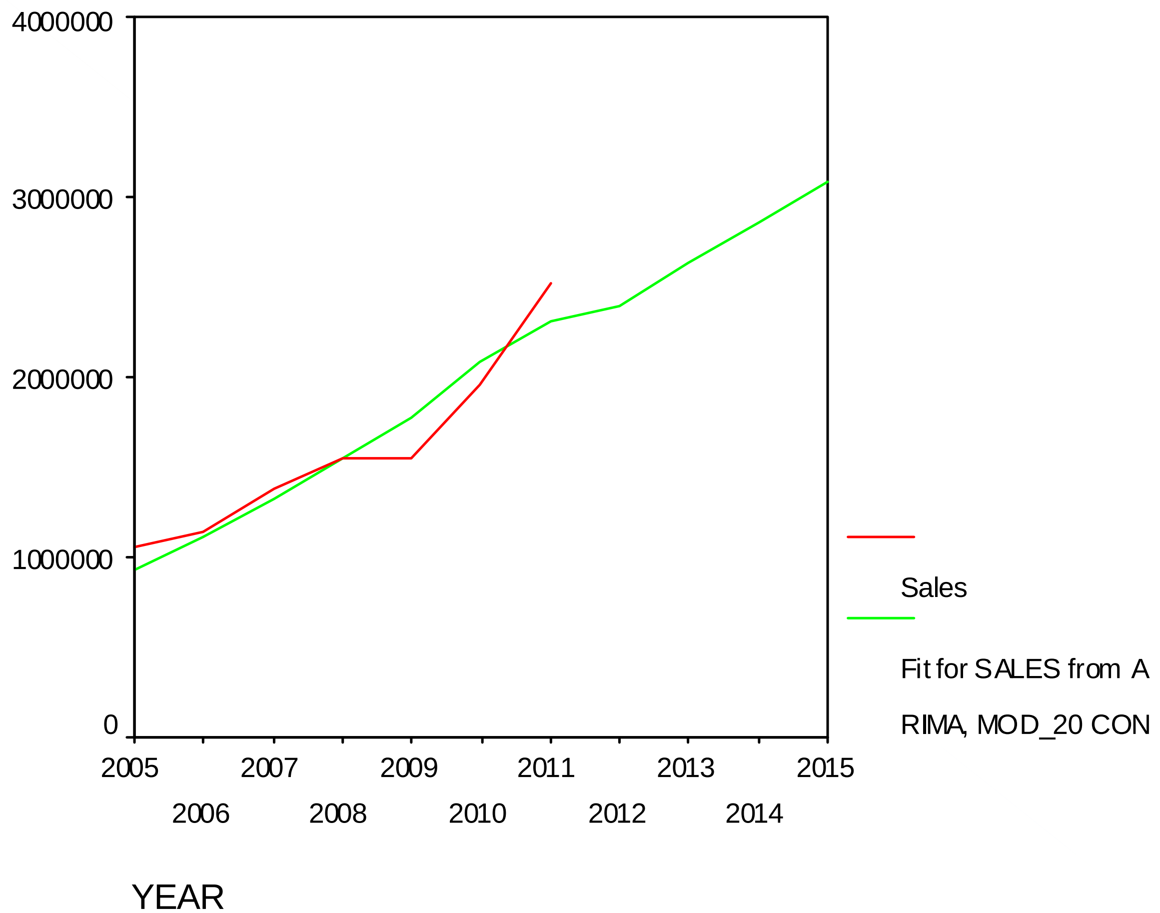


TABLE -9.(C) Arima result for passenger vehicle-production trend:

	B	SEB	T-VALUE	P VALUE
AR1	.46106	2.4	0.195	0.857
MA1	.954	8.6	.111	.918
YEAR	215621.340	35265.3	6.114	.008
CONSTANT	-431393065.513	70812787.5	-6.092	0.008

Graph- 10-: Automobile–Passenger Vehicle–Trends-Sales



The industry is producing about 13 lakhs passenger vehicles, 4 lakhs commercial vehicles, 76 lakhs two wheelers and about 3 lakhs tractors per annum.

India manufactures over 17.5 million vehicles (including 2 wheeled and 4 wheeled) and exports about 2.33 million every year. It is the world's second largest manufacturer of motorcycles, with annual sales exceeding 8.5 million in 2009. India's passenger car and commercial vehicle manufacturing industry is the seventh largest in the world, with an annual production of more than 3.7 million units in 2010.

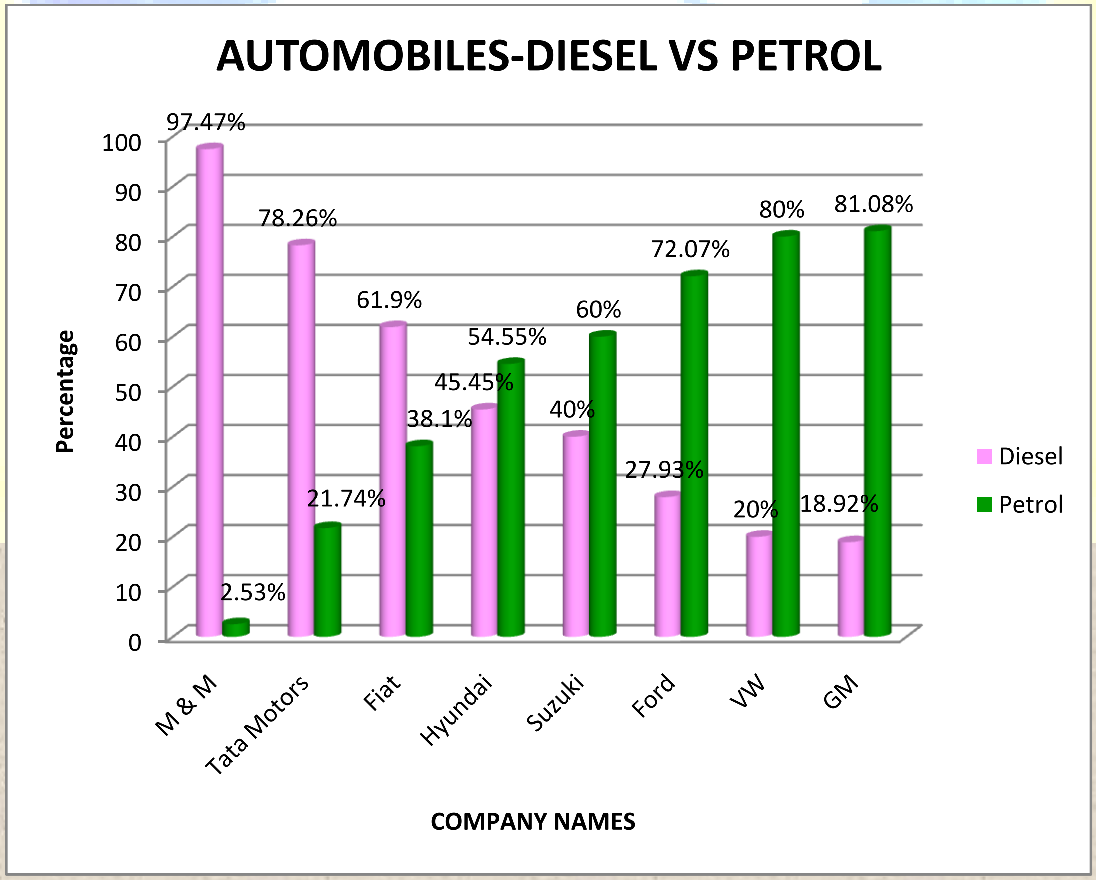
TABLE:10.IN DEPTH AUTOMOBILES-DIESEL VS PETROL

Number of vehicles sold in the year 2011.

DIESEL				PETROL		
COMPANY	BRANDS	SALES	%	BRANDS	SALES	%
M & M	Xylo, Scorpio, Verito	115353	97.47	Verito	3,000	2.53
Tata Motors	Indica, Vista, Manza, Indigo	180,000	78.26	Indica, Vista, Manza, Indigo	50,000	21.74
Fiat	Linea, Punto	6,500	61.90	Linea, Punto	4,000	38.10
Hyundai	I20, Verna	50,000	45.45	I20, Verna	60,000	54.55
Suzuki	Swift, Dzire	150,000	40.00	Swift, Dzire, SX4, Ritz	225,000	60.00
Ford	Figo, Fiesta	31,000	27.93	Figo, Fiesta	80,000	72.07
VW	Polo, Vento Jetta, Passat	10,000	20.00	Polo, Vento Jetta, Passat	40,000	80.00
GM	Beat, Cruze	10500	18.92	Beat	45,000	81.08
Total		553,353			507,000	

Source: Business World 17th Sep 2011, p-40

Graph-11: Automobiles-diesel Vs Petrol:



Italy's largest car maker fiat may have had a disastrous 15 years in the Indian car market, but it is more than making up for that with its dominance of car under the hood. Tata motors, Maruti Suzuki and General Motors (GM), now powers their 16 variants, selling about 290,000 cars per annum.

And it is the pivot on which India's 2.2 million passenger vehicles market is fast turning into one of the world's largest diesel car hubs. It powered 50 percent of all diesel cars sold in India in FY 2011.

European companies such as Volkswagen (VW), Mercedes Benz, BMW, Renault, Peugeot and Opel have traditionally been the flag bearers on the diesel engine, Japanese car makers Toyota, Honda, Suzuki, Nissan and Korean counterparts Hyundai have invariably preferred making petrol cars.

American companies Ford and GM make both smaller vehicles in petrol and largest ones in diesel, but tended to lean towards petrol vehicles.

Toyota market share has risen from 2 percent to 4.1 % ever since the Etios and Liva were launched. Toyota is also ramping up production from the current 200,000 units to 330,000 units by 2013. VW was able to sell 51,566 cars in 2011. Compared with only 4,000 in 2010.

3. SUGESSIONS: FDI Inflows:

The country has received only $18.35 billion in FDI in the first 11 months (April-February) of the financial year 2010-2011, compared to $24.63 billion that came in the 11 months of the previous financial year.

The Indian automotive industry is the 2nd fastest growing in the world. About 8 million vehicles are produced annually in this country toady. During 2005-2006, India has emerged as the 3 rd largest market in the Asia Pacific Region.

With various car manufacturing companies setting up their units in different parts of the country, the production of the cars will increase at a very fast rate. The car statistics indicate that India will soon become one of the top 10 car manufacturing countries , leaving behind the U.K. Car statistics also show that by the end of the fiscal year 2006-2007, the car production capacity in India will exceed the mark of 2 million. Thus, the production of cars will increase by 70% from the present capacity of 1.2 million.

The structure of India's auto industry is unique when compared to other developed economies. Besides a strong four-wheeler market, India also has sizeable two-wheeler, three-wheeler and commercial truck markets. The country rolled out a total of 8.5 million vehicles in 2004, of which 1.2 million were passenger cars and multi-utility vehicles. By 2010, India will be a two million passenger-car market and will become a three million market by 2015, according to Roland Berger Strategy Consultants. If only India had previously developed an adequate road infrastructure, these volumes could have already been reached. Purchasing power for such volumes exists today, but road development is moving at a far slower pace.

Although the foundation for a strong passenger-car industry was laid in the early 1990s, real momentum has been building only since 2000, when the government significantly changed its policies, taking steps to make manufacturing more internationally competitive by creating export promotion zones and expanding infrastructure. India also freed industry from excessive regulations five years ago.

Its stance toward foreign direct investment also became less restrictive. In China a joint venture is required for domestic production. India's auto FDI policy, on the other hand, allows global DEMs to have 100% ownership, which has created a healthy industry from the start. The Indian market therefore is full of real players and not "aspirers."

4: CONCLUSION:

The present study concludes that FDI inflows have shown significant growth in the post liberalization period. The compound annual growth rate of Actual FDI inflows during this period comes out to be as high as 29.56 percent. The analysis of structure of FDI in India reveals that after liberalization there definitely has been a shift in favor of service sector and a steep fall in the share of manufacturing sector. However, this trend matches the trend of change in the structure of FDI inflows to the developing countries and even the world.

To conclude, the automobile sales are expected to experience a boom in the coming years and we might get to see a couple more automotive giants invading the Indian territories and locking horns with the Indian titans.

The FDI inflows in August 2009 were USD 3.26 billion. Contrary to smart recovery in the domestic economy and a rebound in exports, overseas investment show a slackening trend in the current fiscal, an official told PTI.

For the April-August period of 2010-11, FDI inflows declined by 35 per cent to USD 8.92 billion compared to USD 13.8 billion in the same period last year.

Global economic recovery is one of the reasons for declining FDI in India.

4.1: Indian Government Policies Affecting Auto FDI

The supply of fuel for individual motorists is also problematic in India. Some automakers also note that frequently changing government policies have a negative impact on their investment decisions.

Since, 1990, Indian government policies have been aimed at promoting a globally competitive auto sector, and FDI is critical component of this plan. For the past 10 years, India has taken a number of steps toward expanding the domestic automotive industry and promoting it as a globally competitive player.

This survey was done amongst Japanese foreign investors in the Countries of study. The Indian has been significant in its encouragement of foreign investments in India for its emerging economy. Invest in India is an initiative to market India as an investment destination all over the globe, to provide a networking platform to the Indian businesses at a global level and to provide information to the international investors about investment opportunities in India.

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