Strategies for Enhancing Competitiveness of Indian Auto Component Industries

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"India in a Tri-Polar Auto World"
"India would be the third largest Economy (after US and China) by 2050"

- *Goldman Sachs Report*

Introduction

India's quest to become a global auto manufacturing hub has made the world's top auto makers increasingly turn to India for their vehicle components. Riding this success and capitalizing on the spiraling demand from domestic auto companies, the Indian auto components industry is strengthening the demand and is emerging as one of fastest growing manufacturing sectors, and a globally competitive one.

The entry of foreign automobile manufacturers ranging from Mercedes Benz, Ford, and General Motors to Daewoo following the government liberalizing the foreign investment limits has created a beginning of auto ancillary industry to witness huge capacity expansions and modernization initiatives in the post liberalization period.

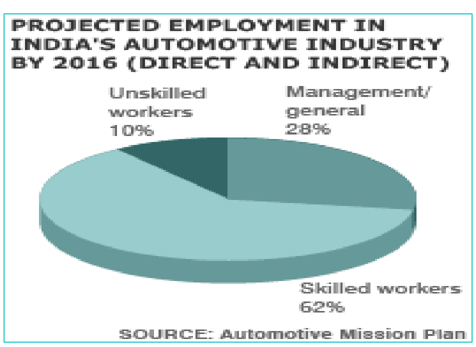
India is also becoming a global hub for R&D: GM, Daimler Chrysler, Bosch, Suzuki, Johnson Controls etc. have set up development centers in India

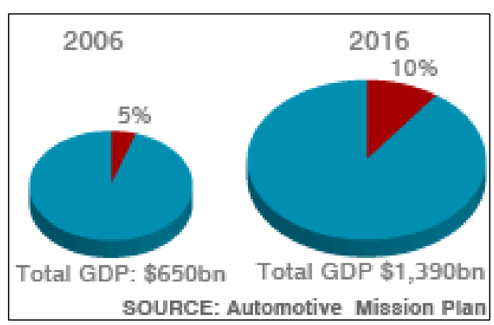
ACMA says that India is amongst the most competitive manufacturers of Auto Components; especially metal Intensive components like forgings, stampings, and castings.

"We have come to understand frugal product engineering and marketing. The mindset behind the SCORPIO (Mahindra and Mahindra's successful utility vehicle)- an example of frugal engineering- is what we want to learn". We need to know how to assemble and source such products and make money out of them. Indian manufacturers know it best. China is also a low-cost manufacturer. But there is something unique about India's frugality of engineering and management. If I have to fight the battle on low cost, I am going to do it (with a base) in India."
Carlos Ghosn of Nissan

Driving force of Indian manufacturing sector

The Indian Auto component Industry has an estimated 560 companies operating in this area (FY 2006), giving direct employment to more than 300,000 persons, exporting goods worth US $ 1.8 billion. Exports have improved from 16 % (FY2005) to 21.5 % (FY 2006) of total auto component production. The Indian Auto component industry is largely dependent on OEM's, which contributes to 60 % of sales, 'after market' (Replacement market) 18.5 % and export 21.5 %.

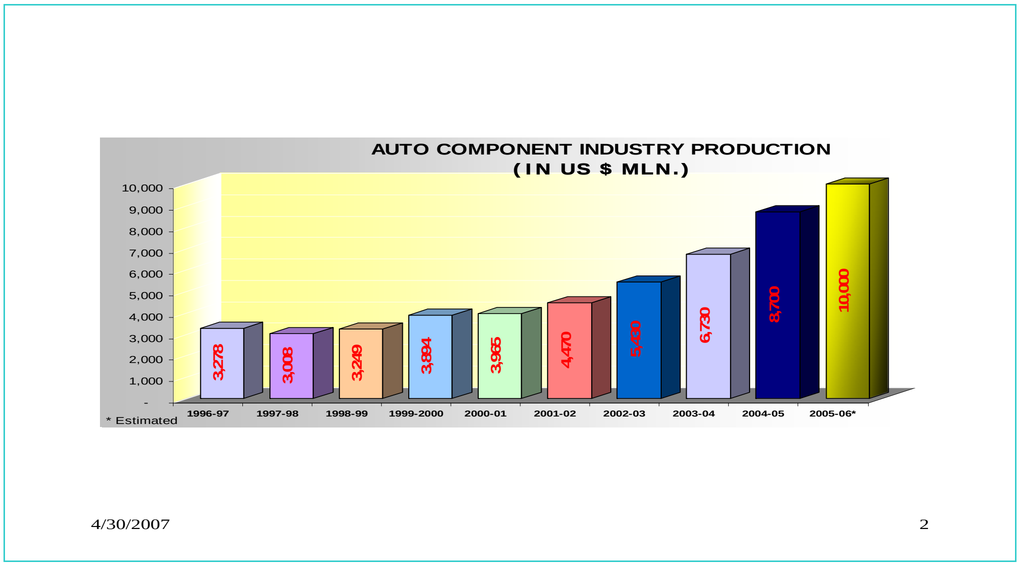




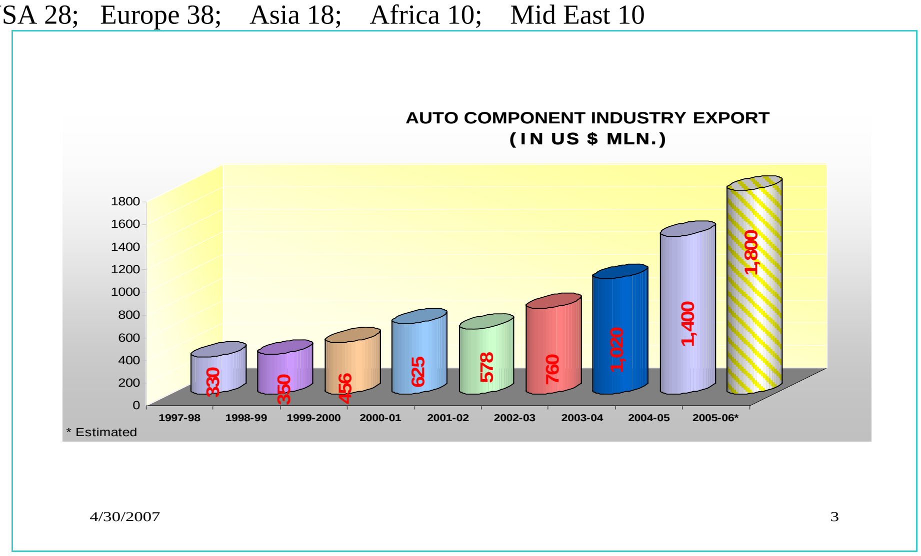
Automotive contribution to GDP

India's GDP is set to double over the next decade
In percentage terms, the automotive industry's contribution should also double.
In dollar terms, the sector's contribution is set to quadruple to some $145bn
The consequence is a remarkable transformation of India's entire economic landscape

Auto Components as a percent value of a vehicle:
Engine Parts 31, Drive, Transmission & steering parts 12, Suspension & Braking parts 12 Equipments 10, Electrical parts 9 and others 26.



Composition of Exports as a percent– FY 2006
To - USA 28; Europe 38; Asia 18; Africa 10; Mid East 10



The Auto component Industry is graduating to world class. Opportunity and challenge, both are by-products of globalization. Indian companies are facing the challenges by consistently trying to reach the world class standards.

- Availing global certification

Details of various certifications are listed below

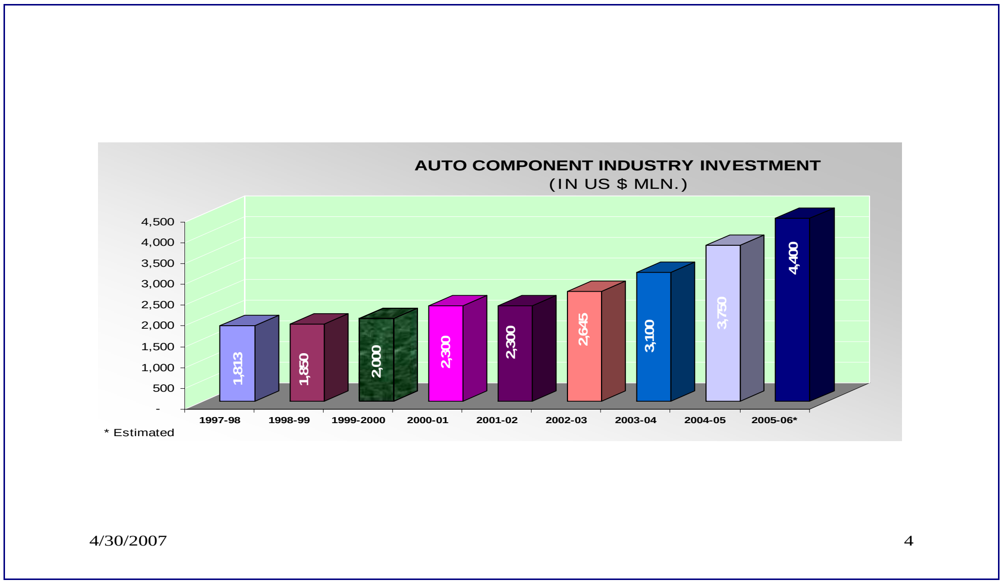
Number of Companies	Certification/ Awards
456	I S O 9000
248	TS 16949
136	Q S 9000
129	I S O 14001
9	Deming Award
4	JIPMA Award

- Auto component suppliers embracing modern shop floor practices:
  5-S, Kaizen, T Q M, T P M, Six-Sigma and Lean manufacturing

Auto Policy:
Government of India, under the EXIM policy, has designated auto components as a "Thrust Sector", allowing automatic approval of foreign equity participation up to 100 percent for manufacture of auto components.

Continued import tariff reduction:

2001	2002	2003	2004	2005	2006
35%	30%	25%	20%	15%	2.5%



With more business coming from USA and European Union[♣], exports are more remunerative to these countries, for which China and India are looked at as prospective destinations.

Focus areas are R&D, Quality certifications, capacity expansion and Global marketing- Initial cost may be high, but would prove remunerative in the long run.

With mounting pressure by OEM's to reduce prices, most of the auto component suppliers from North America are filing for Bankruptcy. Now is the phase of consolidation globally. Industry experts are of the view, that little over 100, Tier – I, suppliers would survive in the coming years with more than 50 percent outsourcing.

Global supplier presence in India:

- Delphi : Steering System and Wiring harness
- Bosch : Spark plugs, Fuel Injection equipments, Oil Filters
- Denso : Auto electric components, alternators, fuel pumps and Radiators
- Lear : Electronic and Auto electrical components.
- Johnson Controls: Seating Systems and Controls
- Visteon : Air conditioning, engine cooling systems.
- T RW : Engine valves and steering system, Braking system and auto electric components
- Siemens VDO: Automotive dashboard instruments and accessories.
- DANA : Clutch, Piston rings, axle housing.

[♣] Sales in terms of value as percentage of total exports by Indian Auto component Industries - FY 2005.
USA 28 ; Europe 38 ; Africa 12 ; Asia 15 and others: 7)

- Z F : Hydraulic power steering gears, steering columns and shafts.
- G K N : Drive shaft assemblies, CV Joints, Sintered bearing parts, filters and metal powders.

Indian Companies investing overseas:

- Tata Motors : Daewoo Commercial Vehicle Plant
- M & M : Jianging Motors Co- China , SAR Auto Products Ltd China
- Bharat Forge Ltd: Carl Dan Peddnghaus Germany
  Fedara Forge U S A
  Imatra Kilsta AB Sweeden
  Scottish Stampings Ltd Scottland
- Amtec Auto : G K W UK, New Smith Jones Inc of USA , Zelter- Germany
- UCAL Fuel System: Amtec precision Products Inc USA
- SFL: Bliesthal Products GMBH for valve guide & valve seat inserts.
  Precision forging unit of Dana Spicer (UK)
  Camlington Forge –UK
  Greenfield Plant in Zhejiang- China
- El Forge Ltd : Shakespeare Forging UK
- T V S Autolec Ltd: RBI Autoparts SND BHD, Malaysia.
- Sona Koyo: Fuji Autotec – France.

Some of the Design and Research Centers in India:

General Motors , Ford , Caterpillar, Honda, Suzuki, Johnson , Cummins ,Intel, Visteon, Delphi ,

World class Design and developed Indian Products:

- Mahindra and Mahindra's "Scorpio"
- TVS Motor's "Scooty"
- Bajaj Auto's "Pulsar"
- Tata Motors's "Indica" and "Indigo"

World wide production of Cars: (FY 2004)

Rank	Country	No of Units	% Growth YoY
1	Japan	8,720,385	3
2	Germany	5,192,101	1
3	U S A	4,229,625	(6)
4	France	3,227,416	0
5	Korea	3,122,600	13
6	China	2,316,262	15
7	Brazil	1,756,166	17
8	U K	1,646,881	(1)
9	Canada	1,335,464	0
10	India	1,178,354	30

World wide Production of Heavy Vehicles:

Rank	Country	No of Units	Growth YoY
1	Japan	769,953	0
2	China	541,813	11
3	U S A	357,834	39
4	India	202,435	32
5	Germany	193,774	19
6	Brazil	106,962	35
7	Indonesia	71,992	23
8	Mexico	70,000	28
9	Netherlands	64,329	15
10	Russia	58,442	15
11	France	57,715	15

Parameters that make Indian auto component supplier globally competitive:

Low cost Factor:

Average wages in India are almost less than 50 % of wages in developed countries. Even after factoring for lower productivity, the net cost advantage is about 30 %.
Designing, Engineering and IT skills"

The advantages of Indian auto component companies are very similar to those of Indian software Industry.

- Large pool of English speaking engineers,
- Offer product development and design services at a competitive rates
- Also can leverage on its counterparts in IT industry for technology.
- Indian auto component industries stand out for their quality as compared to other low cost locations. As many as fifteen Indian companies have received the prestigious Deming award, of which five are auto component companies. Many are with ISO 9000, ISO 14001, and TS certifications (which are a must for supplying to Ford, Chrysler and General Motors of USA).
- India being the low cost producer of aluminum and some grades of steel, auto components will definitely be cheaper by 2-30%.

Availability of qualified human resources:

(scale1=low, 10=high)

	Germany	India	US	Brazil	Mexico	.	China
Availability of skilled labor	7.5	7.4	7.2	6.4	6.3		4.8
Availability of qualified engineers	8.5	7.5	7.4	6.6	6.6		4.2

Source: ACMA

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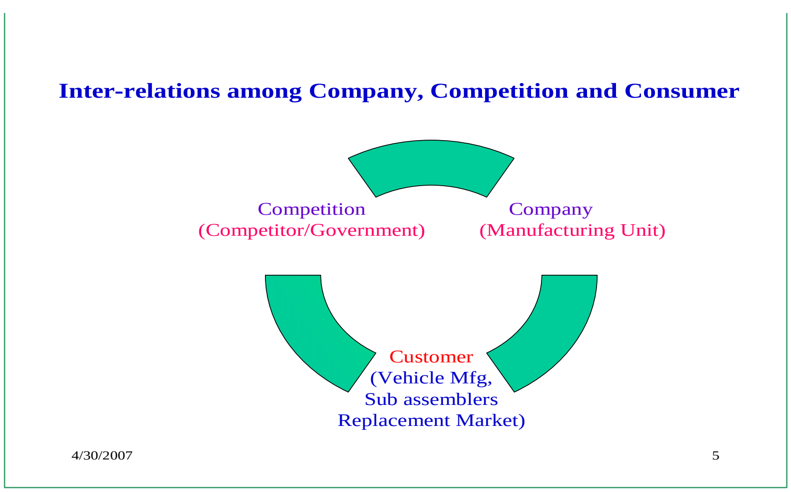

Total size of auto component industry being $1000 billion, Indian component exports are miniscule at $1.8 billion (FY2006). Although the growth in exports is much higher than domestic market Indian Auto component Industry has to face significant operational challenges and Risks –

Scale, logistics, quality, adherence to strict delivery schedules and penalties for poor quality, assembly line stoppage, product recalls.

Analysis

Foreign Direct Investment (FDI) inflows in the country jumped nearly three fold to 15 billion dollars in 2006-07,(as against 5.5 billion dollars during 2005-06) as the world's second-fastest growing economy lured investors from across the world .FDI for 2007-08 pegged at 25 billion dollars.

India's labor intensive car industry has become a tremendous job creator and as such a crucial driver of economic growth.

Conclusion

Different Global Business models for Auto components can be developed based on further research on:

- Innovative methods of production to add value for Engine parts, Drive, Transmission & Steering parts, Suspension & braking parts which almost constitute 55 % of total value of a vehicle.
- Import technology, Collaborate with component suppliers to various high end component consumer - improve learning curve.
- Look for possible supply of an assembly rather than components, where India has an edge over other countries.
- Auto industry growth of different countries.
- Governments long term policies- both Local and Exporting countries

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