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Policy Analysis on the Competitive Advantage of the Motorcycle Industry in Pakistan; Problems and Prospects

December 12, 2006



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ACRONYMS

ACMA	Auto Component Manufacturer's Association (India)
AIDP	Auto Industry Development Program (EDB)
APMA	Association of Pakistan Motorcycle Assemblers
CBR	Central Board of Revenue
CBU	Completely Built-up Unit
CC	Cubic Centimeters
CEO	Chief Executive Officer
CKD	Completely Knocked Down
CSF	Competitiveness Support Fund
EDB	Engineering Development Board
EPA	Environmental Protection Agency
FAMI	Federation of Asian Motorcycle Industries
FOB	Free on Board
FR&S	Fiscal Research & Statistics
FTA	Free Trade Agreement
GoP	Government of Pakistan
HEC	Higher Education Commission
JV	Joint Venture
LCC	Low Cost Countries
LTU	Large Taxpayers Unit of CBR
LUMS	Lahore University of Management Sciences
MoF	Ministry of Finance, GoP
MoIP&SI	Ministry of Industries, Production and Special Initiatives
MoS&T	Ministry of Science & Technology
NBP	National Bank of Pakistan
NBFI's	Non Banking Financial Institutions
OEM	Original Equipment Manufacturer
PAAPAM	Pakistan Association of Automotive Parts and Accessories Manufacturers
PAMA	Pakistan Automotive Manufacturers Association
PDI	Pre-Delivery Inspection
PTA	Preferential Trade Agreement
R&D	Research and Development
SBP	State Bank of Pakistan
SDC	Skills Development Centres
SME	Small and Medium Enterprise
SMEDA	Small and Medium Enterprise Development Authority of GoP
SRO	Statutory Regulatory Order (also referred to as a Statutory Notification)
TBS	Tariff Based System
TDAP	Trade Development Authority of Pakistan (earlier known as the Export Promotion Bureau)
TUSDC	Technology Up-Gradation & Skill Development Centre
TVS	TVS (Group of companies in India)
USD	United States Dollar
VAT	Value Added Tax
WTO	World Trade Organization

EXECUTIVE SUMMARY

After showing a compounded growth rate of 58% in the past 5 years, sales of new motorcycles in Pakistan appear to be stagnating at between 750 – 775,000 units per annum. This Report titled “Policy Analysis on the Competitive Advantage of the Motorcycle Industry in Pakistan: Problems & Prospects” aims at identifying:

- The reasons behind the rapid growth in the past 5 years.
- Problems being faced by the key stakeholders, namely the Original Equipment Manufacturers, the component and parts industry and the final consumers.
- Implementable solutions and their impact.

Chapter 1: Introduction contains the background, objectives, scope of the Study and research methodology used.

Chapter 2: The Motorcycle Industry briefly describes the global motorcycle industry (Detailed overview given in Annexure 4), the local motorcycle industry and then goes on to project demand for motorcycles by 2010 -11.

Chapter 3: Original Equipment Manufacturers and Stakeholders (OEMs) discusses the major issues concerning the OEMs such as present tariff structure, incidence of high taxation (which amounts to over Rs.17,000 against a locally produced motorcycle of Rs.35 – 50,000). The Associations of the OEMs (PAMA & APMA), the Regulatory Bodies (EDB, PSQCA, CBR), have been discussed. The last section of the chapter discusses the problems faced by the OEMs and their recommended solutions.

Chapter 4 Parts & Component Suppliers discusses the issues confronting the Parts & Component Suppliers. The existing tariff and non-tariff protection available to the industry has been briefly discussed along with the vendors Association PAAPAM. Problems faced by the vendors and solutions thereof are discussed in the last section of this Chapter.

Chapter 5: Export Strategy describes regional competition from China, India, Thailand, Vietnam etc. and the various tariff and non-tariff measures being used by them to promote exports. Keeping in mind the above and the present status of local OEMs, export strategy has been suggested, which involves refund of US \$ 85 of custom duty paid on import of raw materials plus freight subsidy of US \$ 30 per unit. This will enable the local OEMs to export competitively. The last section of this chapter describes the state of the local OEMs.

Chapter 6: Conclusions & Next Steps, describes the obstacles, solutions and their impact on employment, foreign exchange earnings and additional revenue collection for the government.

Recommended measures will enable motorcycles production to increase from the present level of 750,000 units to over 1.7 million units including exports of 100,000 units by 2010 -11. This can be achieved by making financing available through banks.

The proposed measures will result in the creation of an additional 500,000 new jobs, cumulative increase in Sales Tax collection of Rs.20.25 billion, Custom Duty of Rs.13.60 billion and new registration charges of Rs.5.4 billion (Thereby giving a total cumulative marginal revenue of Rs.39.25 billion to the Government)

The cost of production of local components and parts is high and these need to be brought down by establishment of Raw Material Coops, Motorcycle Parks in Lahore and Karachi with self generation of electricity, and provision of financial assistance to vendors for acquiring technology from abroad.

CHAPTER 1 INTRODUCTION

1.1 BACKGROUND

The auto industry of which the motorcycle industry is a part has got deep backward (metals such as steel, aluminum. Copper, rubber, chrome, nickel, plastic, paint, glass, textiles, electrical, capital equipment, trucking, warehousing) and forward (dealerships, retailers, banking, credit and financing, insurance, logistics, advertising, repair and maintenance, petroleum products, services, parts) linkages as such any major shifts in demand are felt in a variety of other industries.

The industry Worldwide has seen a tremendous growth in the past two years. Production in 2005 has been estimated at 40.0 million units with China producing 17.0 million units. This global surge in demand has also been felt in Pakistan where the industry in the financial year ending June 2006 manufactured more than 750,000 units.

There are currently 43 Original Equipment Manufacturers (OEMs) in the Industry. These include 6 OEMs who are members of the Pakistan Automotive manufacturers Association (PAMA) and 37 OEMs who are not PAMA members. These OEMs are supported by nearly 2,000 parts and component manufacturing units employing close to 50,000 persons.

The industry is volume driven and needs a critical mass before costs and hence prices can start coming down. This critical mass has been reached and the prices in Pakistan have on the average come down by 30% in the past 5 years.

The development of China as the major player in the global motorcycle industry has been achieved by linking its strong domestic demand to the abundance of low technology dependent manufacturing or cloning. Pakistan faces a similar situation with its current suppressed demand.

As compared to other industries in which competitiveness can only be achieved with high levels of human capital, the motorcycle industry is more concerned with better management of human resources and high levels of productivity at all levels, i.e. OEMs as well as parts and component manufacturers.

1.2 OBJECTIVES AND SCOPE OF THE STUDY

The primary objective of the Study is to carryout a Policy Analysis on the competitive advantage of the local motorcycle industry along with identification of the problems being faced by the sector and recommending solutions for the same both at Policy and Program level.

Scope of work included carrying out a Survey of the OEMs, component manufacturers, government agencies and other stakeholders like banks, etc. In addition to the collection of primary data, detailed analysis of the secondary data and its linkage with the primary data.

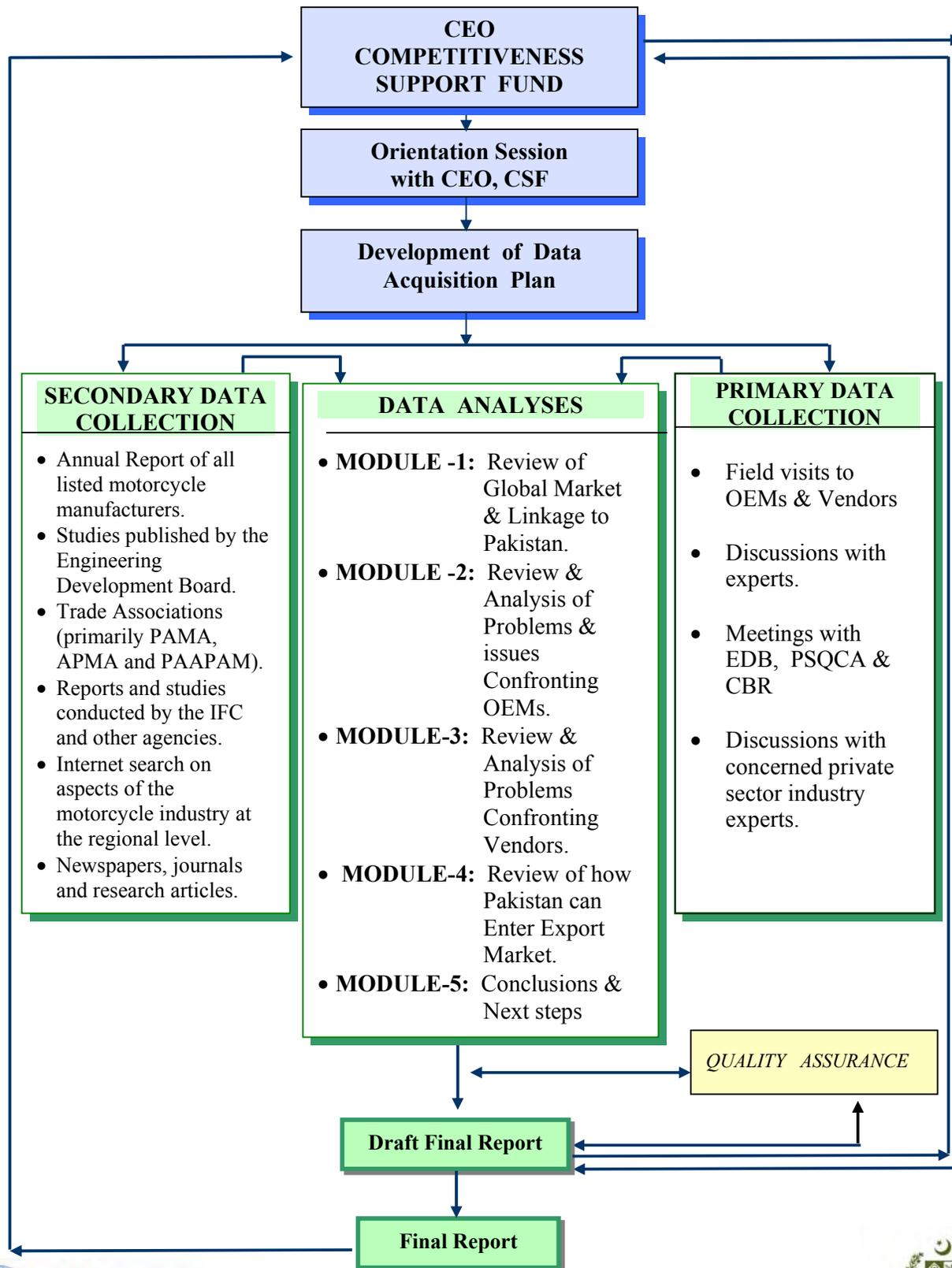
1.3 RESEARCH METHODOLOGY

Research methodology adopted for this Study is shown in Figure 1.

The various steps followed in the completion of this Study include:

- Step 1: Orientation session with the CEO of CSF to develop a better understanding of the requirements of the study.
- Step 2: Secondary Data Collection and review, list of literature reviewed is attached as Annexure 3
- Step 3: Primary Data Collection mostly related to focusing on the problems being faced by the OEMs, parts and component manufacturers. This involved conducting surveys of OEMs and vendors as well as having discussions with industry experts and officials of EDB, PSQCA, CBR and banks. List of persons met and organizations visited is attached as Annexure 2.
- Step 4: Analysis of the Secondary and Primary data to develop the following 3 modules
 - Module 1: Review of the global market and its linkage with Pakistan. Detailed analysis is given as Annexure 4 and briefly discussed in Chapter 2.

**FIGURE -1
RESEARCH METHODOLOGY**



- Module 2: Review and analysis of problems and issues confronted by the OEMs. This analysis has been given in Chapter 3. In order to facilitate comprehension of each identified problem it is followed by its recommended solution.
- Module 3: Focuses on the problems and issues confronting the component manufacturers, detailed analysis of problems with recommended solutions is provided in Chapter 4.
- Module 4: Chapter 5 looks at how Pakistan can enter the global export market for motorcycles. It begins with an analysis of the regional competitors and studies the strategies they have followed. The analysis then moves to identifying the domestic competence in the industry.
- Module 5: Summarizes the conclusions and suggests the next steps to be followed. Detailed conclusions and the next steps are given in Chapter 6

CHAPTER 2

THE MOTORCYCLE INDUSTRY

2.1 GLOBAL MARKET

Global motorcycle production increased from 30 million units in 2004 to 40 million units in 2005 with China alone producing 17 million units. The second largest producer was India with 7.7 million units while Pakistan came at number seven with a production of 751,000 motorcycles or about 2% of the global total.

The World market for motorcycles is dominated by the Japanese brands, namely Honda, Suzuki, Yamaha and Kawasaki. Although Japan itself produced only 700,000 motorcycles, its brands with strong presence in the Low Cost Countries (LCC) like China, India, Indonesia, Thailand etc., control 50% of the world market.

Even in China where the local Chinese brands control more than two thirds of the market, the basic designs are still modeled round the popular Japanese models. Indian companies like Hero Honda and TVS rely heavily on their Japanese partners for basic designs and model innovations. This is perhaps because of the fact that R&D for the industry is both expensive and time consuming. The Japanese manufacturers named above have both the financial muscle as well as the technical capability to undertake the required R&D.

2.2 PAKISTAN'S INDUSTRY

In Pakistan, motorcycle assembly started in 1964 when the local Atlas Group started assembling Honda motorcycles in Karachi. Currently in addition to Honda, the other Japanese brands being manufactured in Pakistan include Yamaha and Suzuki. The most successful design among the Japanese brands has been the Honda 70CC which enjoys tremendous popularity on account of its fuel economy, resale and low maintenance features.

The Pakistan Automotive Manufacturers Association (PAMA) was formed in 1984. Initially three motorcycle OEMs namely Atlas Honda, Dawood Yamaha and Suzuki Motorcycles Pakistan became PAMA members. The other founding members of PAMA were OEMs manufacturing Passenger Cars, Tractors, Light Commercial Vehicles

(LCV's), Truck & Bus manufacturers etc. In the 1990's, three more OEMs joined PAMA, these were, Fateh Motors, Pakistan Cycle Industrial Cooperative Society Limited and Siagol Qingqi Motors Ltd (subsequently renamed Qingqi Motors Ltd.).

The Non-Japanese OEMs entered the Pakistani market in the late 1990's by introducing clones of the popular Honda 70CC motorcycle using critical parts and components imported from China. For the basic frame and other low tech parts they used the local vendors (part suppliers) whose development had been facilitated by the Government of Pakistan's indigenization / localization programs for the motorcycle industry. Other than the original 3 Non-Japanese OEMs who became PAMA members, the new entrants preferred to form their own trade bodies and as such are referred to in this study as Non-PAMA members.

Presently there are 43 OEMs producing various brands of motorcycles. Out of these 6 are PAMA members and the remaining 37 Non-PAMA members. The Engineering Development Board (EDB) issues licenses to the OEMs for undertaking assembly operations. The Pakistan Standards & Quality Control Authority (PSQCA) is responsible for monitoring the production of quality products by the OEMs. As such both the EDB and the PSQCA play an important role in the establishment, licensing and monitoring of the technical operations of the motorcycle assemblers.

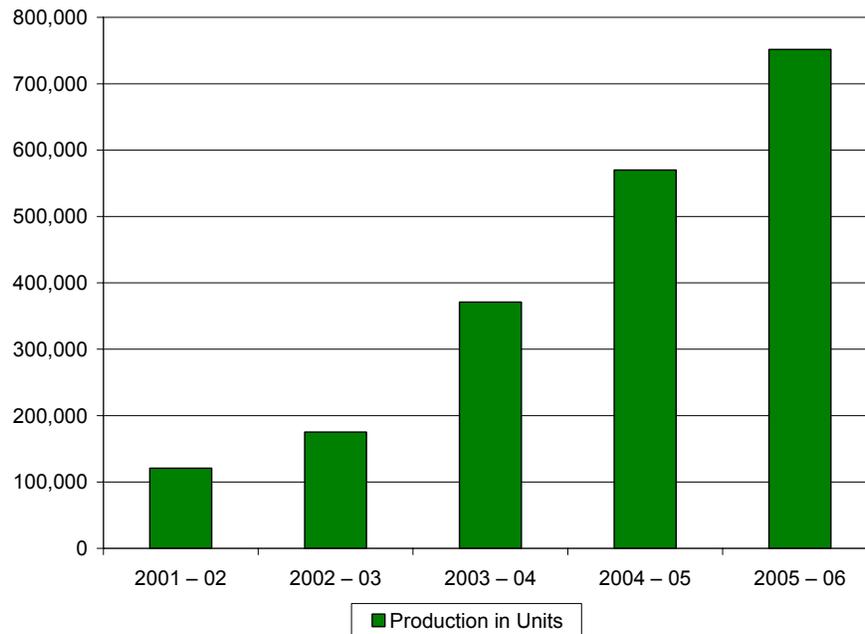
The entry of the Non-PAMA OEM's with a competitive price difference of approximately 25% (Rs.52,000 Vs. Rs.68,000 for the Honda 70CC in 1999) and continuous price reductions (2006 price for average Non-PAMA OEM 70CC clone is Rs.40,000 Vs. Rs.54,000 for a Honda 70CC). This has seen the total motorcycle market increase from 120,627 in 2001 – 02 to 751,667 in 2005 – 06. Table 1, shows the sales increases in the past 5 years.

Table - 1
Sales of Motorcycles in Pakistan

Year	Production in Units	% Growth
2001 – 02	120,627	11.00
2002 – 03	175,169	45.00
2003 – 04	371,007	112.00
2004 – 05	570,085	54.00
2005 – 06	751,667	32.00

Source: EDB

Figure -2
Growth in motorcycle sales in Pakistan



Although the number of assemblers has increased from 3 to 43 the PAMA members continue to hold the dominant market position with 79% of the market share with Atlas Honda alone accounting for 55% of all new motorcycles sold in Pakistan.

With the increase in production, the prices of motorcycles have come down considerably. In 1999 – 2000, the price of a Honda 70CC motorcycle was Rs.68,000. The same year the Non-PAMA OEMs supplied 70CC clones for Rs.50 – 52,000. In order to compete with the Non-PAMA OEM products, Atlas Honda and other PAMA members considerably reduced prices. As a result of these price reductions, the Honda 70CC is currently selling at Rs.54,000, Non-PAMA member clones are available in the Rs.35 – 42,000 range. If this trend in prices continues, the market is likely to expand further.

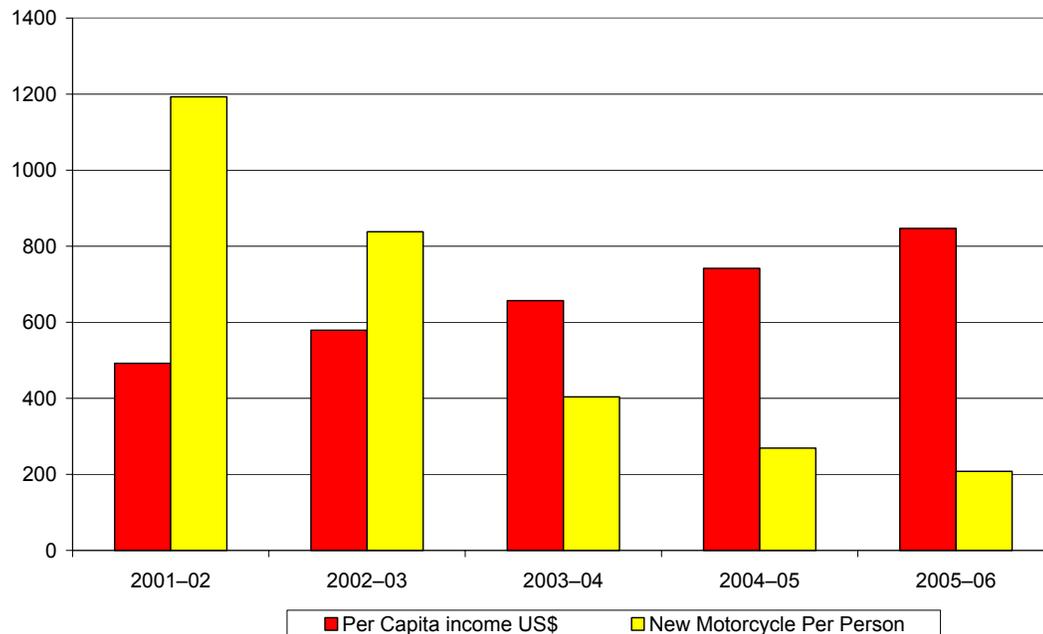
Table 2, shows a positive trend between increases in per capita income and motorcycle sales. Internationally a positive relationship has been seen between per capita income increase and new motorcycle ownership.

Table – 2
Relationship between per capita income and new motorcycle purchases – Pakistan

Year	Per Capita income US\$	Annual Demand Units	Population in 000's	New Motorcycle Per Person	% Change decrease
2001–02	492	120,627	143,825	1193	
2002–03	579	175,169	146,845	838	(30%)
2003–04	657	371,007	149,929	404	(52%)
2004–05	742	570,085	153,077	269	(33%)
2005–06	847	751,667	156,291	208	(23%)

Source: Economic Survey, GoP, EDB, Census, Bureau and GoP

Figure -3
Income in per capita income & its relationship to new motorcycle purchase



2.3 PROJECTED DEMAND

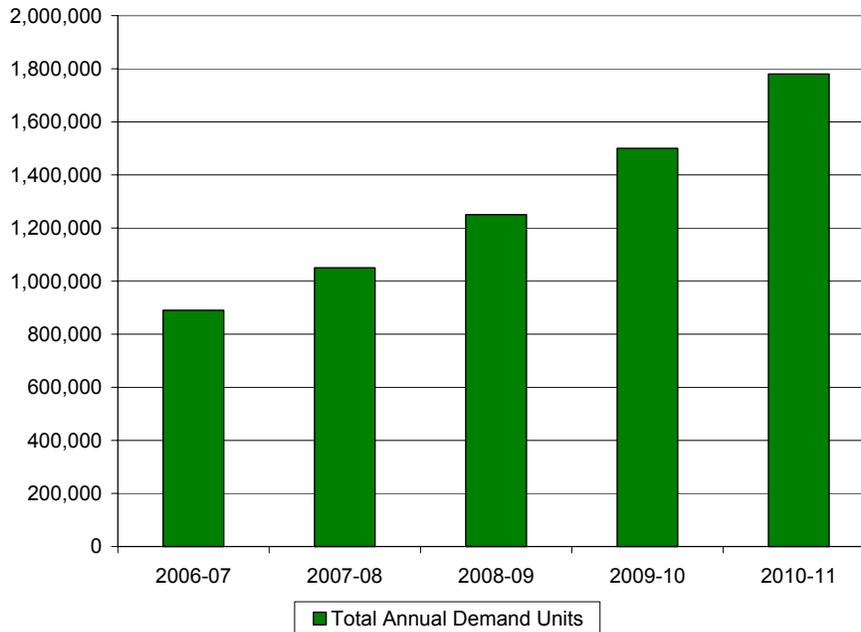
Per capita income in Pakistan has increased in the past 5 years at an average annual rate of approximately 14.0%. The economy is projected to continue to grow at more than 7.5% in the coming decade. Assuming an annual decrease in number of persons per new motorcycle purchased in the next 5 years at 14% (Average decrease for last 4 years being

more than 30% per annum as may be seen in Table 2), demand for new motorcycles in the coming years may be forecasted as shown in Table 3.

Table – 3
Projected Demand for New Motorcycles

Year	Project Per Capita Income US\$	Projected Population 000's	Projected Population Per New Motorcycle	Total Annual Demand Units
2006-07	966	159,573	179	890,000
2007-08	1,100	162,924	154	1,050,000
2008-09	1,255	166,345	132	1,250,000
2009-10	1,430	169,839	113	1,500,000
2010-11	1,645	173,405	97	1,780,000

Figure -4
Projected Demand for New Motorcycles



CHAPTER 3

ORIGINAL EQUIPMENT MANUFACTURERS AND STAKEHOLDERS

3.1 BACKGROUND

Currently there are 43 Original Equipment Manufacturers (OEMs) operating in Pakistan's motorcycle industry. These include 6 OEMs who are members of PAMA including the 3 Japanese OEMs and 37 OEMs who are non PAMA members. The total installed capacity of the OEMs is approximately 1.310 million units per year as per the Engineering Development Board. The OEMs are located in and around the cities of Karachi (Karachi, Hyderabad & Hub) and Lahore (Lahore, Gujrat, Gujranwala).

Market shares of the major OEMs are shown in Table 4.

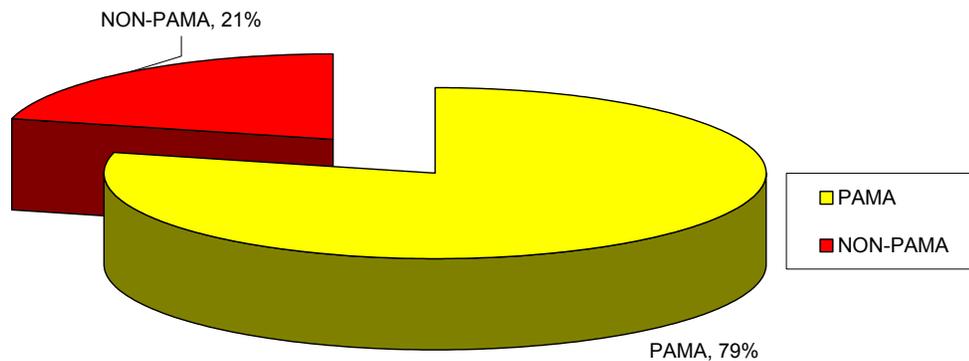
Table – 4
Market Shares of Major OEMs

S #	OEM Brand	Member of PAMA or Non-PAMA	Units (Jan – Dec 2005)	Market Share %	Units (Jan – April 2006)	Market Share %
1.	Atlas Honda	PAMA	251,232	55.0	96,943	56.0
2.	Dawood Yamaha	PAMA	48,477	11.0	15,515	9.0
3.	Hero	PAMA	27,725	6.0	7,810	5.0
4.	Star	NON-PAMA	20,283	4.0	4,600	3.0
5.	Pak Hero	NON-PAMA	18,982	4.0	8,147	5.0
6.	Pak Suzuki	PAMA	16,926	4.0	4,997	3.0
7.	Sohrab	PAMA	13,390	3.0	4,292	2.0
8.	Metro	NON-PAMA	4,075	1.0	719	< 1.0
9.	Others	NON-PAMA	52,142	12.0	30,116	17.0
	Total		453,231	100.0	172,739	100.0
		PAMA	357,750	79.0	129,557	75.0
		Top Four NON-PAMA	43,339	10.0	13,466	8.0
		Balance		11.0		17.0

Source: Provincial Excise & Taxation Departments of Sindh & Punjab

Table 4 shows that in 2005, the PAMA members had 79% market share, the top 4 Non-PAMA OEMs held another 10%, while the balance 11% market share was split between 33 Non-PAMA OEMs! This large number of manufacturers with small market shares seems to indicate that the industry is in for a major shake down with a number of smaller OEMs either closing or merging.

Figure -4
Market Shares of PAMA & NON-PAMA Members



The total installed capacity of the industry is 1.31 million units as stated earlier. Table 5 shows distribution of capacity by OEM membership and Model

Table – 5
Industry Capacity by OEM Origin & Model

Sr. #	OEM by Origin	Capacity by Model in Units			Total Units
		70CC	100CC	125CC	
1.	Japanese	400,000	210,000	50,000	660,000
2.	Chinese	542,500	102,000	5,500	650,000
	Total	942,500	312,000	55,500	1,310,000
	%	72.0%	24.0%	4.0%	100.0%

Source: EDB & PSQCA

Table 5 shows that nearly 3/4th of the capacity is in the 70CC model. In terms of sales, the 70CC motorcycle has approximately 85% of the market. The common USP of the OEMs for selling the 70CC motorcycle revolves round fuel economy and trouble free maintenance. The Point of Difference is that while the Non-PAMA OEMs emphasis price (which varies between Rs.35,000 – 42,000 depending on the

manufacturer), the PAMA members OEMs stress superior resale value backed by a strong after sales and service backup. With apparently no major product differentiation option available to them, the product manufactured by the Non-PAMA OEMs has for the most part become commoditized with price being the only differentiation element. The present overcapacity in the Industry coupled with low margins and lack of major innovation opportunities in the product class can lead to the weaker players exiting the industry.

3.2 PRESENT TARIFF STRUCTURE

The industry in Pakistan operated under the Deletion Policy formulated and implemented by the Ministry of Industries from 1996 till 2005. This deletion/ localization/ indigenization policy stipulated the mandatory progressive use of a certain percentage of locally manufactured parts & components. Table 6 shows the deletion / indigenization targets for the various motorcycle models.

Table – 6
Deletion/Localization Targets for Motorcycle OEMs

S. #	Model	Deletion/Localization Target				
		June 2001 %	June 2002 %	June 2003 %	June 2004 %	June 2005 %
1.	Upto 70CC	83.00	85.00	86.50	88.00	90.00
2.	B/W 70 -100 CC	82.00	83.00	85.00	85.50	86.00
3.	B/W 100- 175 CC	74.00	81.00	82.00	83.00	84.00

Source: EDB

The deletion program which had been framed keeping the capabilities of the local parts and component manufacturing industry in mind, allowed for the import of parts & components whose local production was not possible either because of volume or technological restrictions. The policy applied to both old as well as new entrants. For new entrants this meant that they had to start with the deletion levels already achieved by the existing OEMs. This was one of the reasons for the Non-Japanese OEM's cloning the Honda 70CC model as fairly high levels of localization had been achieved for this model. In addition this model was viewed as a "safe model" from the market acceptance perspective.

With the signing of the WTO, Pakistan moved from the Deletion Policy to the Tariff Based System (TBS) in July 2005. Under TBS protection is provided to the local parts and component manufacturing industry through tariff measures. Table 7 shows tariff rates currently applicable to the motorcycle industry:

Table – 7
Tariff Rates Applicable to the Motorcycle Industry

Sr. #	Product	Applicable Duty
1.	CBU	90.0 %
2.	CKD Kit Non Localized Parts	35.0 %
3.	CKD Localized Parts	50.0 %

Source: EDB

The provision to import Completely Built Up units (CBUs) has meant that the potential OEMs can now import a motorcycle to gauge market acceptance before going in for local manufacture of the same. To provide a level playing field, the Custom Authorities have fixed the price of the 70CC Chinese CBU motorcycle at US\$280 for valuation purposes. The importers / traders however claim that the same is available in China at US\$210 per unit. Some CBU's from China have been imported and are selling in the price range of Rs.35 – 44,000 this compares with the selling price for the Non-PAMA OEM produced 70CC motorcycle whose price range is Rs.35 – 42,000. Table 8 shows detailed cost calculations for the Chinese CBU.

Table – 8
Costing for 70CC CBU Motorcycle from China

S. #	Description	Value
1.	Cost of CBU, C&F Karachi	US\$210.00
2.	Insurance @ 1%	2.10
3.	Import Value	US\$212.10
4.	Custom Duty @ 90% of ITP value of US\$280/-	252.00
5.	Duty Paid Value	US\$464.10
6.	Sales Tax @ 15% of Duty Paid Value, calculated with ITP of US\$ 280	80.22
7.	Sales Tax Paid Value for Customs	US\$544.32
8.	Withholding Tax @ 6%	33.00
9.	Other Charges @ 5% of Duty Paid Value	23.20

10.	Total landed cost for 70CC CBU	US\$600.00
11.	Landed Cost in Pk Rs. (1 US\$=Rs.60/-)	Rs.36,000.00

3.3 INCIDENCE OF TAXATION

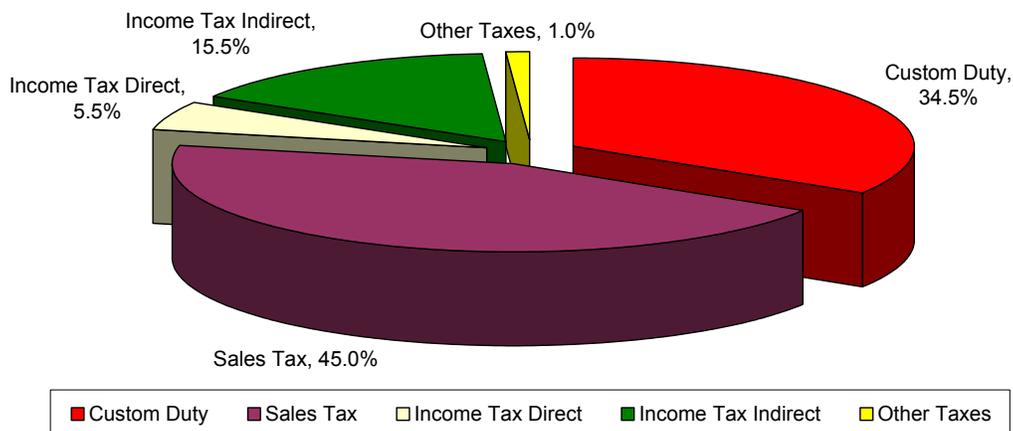
Currently there is a very high rate of indirect taxation on the manufacture and sale of Motorcycles. On a CD70CC the total incidence of Indirect Taxation is around Rs.17,124 as shown in Table -9:

Table – 9
Total Taxation Detail on One Unit of Motorcycle

S. #	Tax Head	Indirect Tax	Direct Tax	Total Tax	% of Total Tax
01.	Custom Duty	5,821	Nil	5,821	34.0%
02.	Sales Tax	7,632	Nil	7,632	45.0%
03.	Income Tax	2,548	960	3,508	20.0%
04.	Other Taxes	163	Nil	163	1.0%
	Total Direct	16,164	960	17,124	100.0%
	% of Total Tax	94.50%	5.60%	100.0%	100.0%

Source: Industry Estimates

Figure -5
Tax on one unit of Motorcycle



The industry is thus subjected to very high rates of indirect taxation. The Sales Tax rate @ 15% on the value of the final product is comparatively easier to collect. The other indirect taxes especially custom duty offer greater opportunities for evasion. There is therefore a need for reduction in the rates

of indirect tax especially custom duty which will help reduce the cost of the motorcycle.

3.4 ASSOCIATIONS OF OEMs

There are two associations representing the motorcycle assemblers as briefly discussed below:

3.4.1 Pakistan Automotive Manufacturers' Association (PAMA) PAMA was established in 1982 Its membership includes assemblers of four wheelers, trucks, buses, commercial vehicles, three wheelers and also six two wheelers. These 6 two wheelers include the three Japanese OEMs plus three other OEMs namely Fateh, Plum Qingqi and Pakistan Cycle Industrial Cooperative Society.

PAMA has a permanent secretariat with a full-time Chairman and staff located in Karachi. The members of PAMA support the Chairman (who is a senior retired secretary to the Federal Govt.) in presenting their view point before the government and its different agencies.

3.4.2 Most of the Non-PAMA members OEMs are members of another trade body **Association of Pakistan Motorcycle Assemblers (APMA)**. This Association is not registered with the Directorate of Trade Organizations (DTO) of the Federal Government and as such it is not a recognized trade body. It has a Chairman, two Vice Chairmen, one for the South and the other for North along with a General Secretary.

APMA gets good coverage in the local media for its activities most of which are aimed at getting a level playing field for all motorcycle manufacturers.

There is a general feeling among the members that had it not been for the concerted efforts of APMA, the industry would have closed by now. The members of APMA feel that they lack connections/ advocacy skills which currently limit them in their dealings with EDB.

3.5 REGULATORY BODIES

Primarily there are three major Regulatory Bodies that are involved in regulating and monitoring the licensing and operations of the industry. These include the EDB, the PSQCA and the CBR. Their roles, functions, present views of the industry about them and

recommendations for improvement in their functioning are given below.

3.5.1 ENGINEERING DEVELOPMENT BOARD (EDB)

EDB the apex government body under the Ministry of Industries, Production and Special Initiatives is entrusted with the task of strengthening the engineering base in Pakistan. The Board focuses primarily on the development of the engineering goods and services sector on modern lines enabling it to become technologically sound and globally integrated.

In the development of Pakistan's auto sector, the EDB has played a major role as it was responsible for developing and monitoring the deletion/ indigenization program for the auto industry. Under the new WTO regime, it is responsible for implementation of the Tariff Based System (TBS) in the auto sector and for identifying and removing the bottlenecks for the industry.

The EDB is responsible for inspection of assembly / manufacturing facilities in the auto sector. Its mandate includes working closely with the CBR to facilitate auto industry on customs, sales tax and other tax related matters and in proposing easy procedures and formalities. In addition, it is required to update the database on the entire automotive manufacturing sector on a regular basis.

According to the stakeholders met during the course of this Study and based on available literature on the EDB, the following observations on the organization have been inferred:

- The majority of the motorcycles being manufactured in Pakistan are the 70CC motorcycles. Most of the parts used in the frame, suspension, engine etc are interchangeable, or can be used with minor adjustments. It is suggested that the EDB identify these common parts, based on production figures the total OEM market for these parts can be determined. In addition the replacement market demand can also be estimated at various price options. For those parts where critical volumes are available, the EDB should try and foster “embedded” linkages between the larger Assemblers and one or two vendors who are willing to make the investment.
- In order to promote the genuine assemblers, and to develop a competitive spirit among the assemblers, it is suggested that the

EDB should rank the local motorcycle assemblers on the basis of their engineering, R&D and manufacturing processes. These rankings should be widely publicized.

- The EDB in association with PAMA and the component manufacturers' trade association the Pakistan Association of Auto Parts and Accessories Manufacturers (PAAPAM) should strive to have the names of the manufacturers on all parts which are locally manufactured. Once this practice, which is strongly backed by the component industry, is put into place, the problem regarding origin of parts used by assemblers can be solved to some extent.
- Engineering Audits need to be made more meaningful. One of the objections to the EDB audits is that they are more table than assembly line audits; mechanism should be developed to remove this impression.
- Cost reductions in the industry are dependent on component rather than individual part supply. As the EDB operates at a macro level, it can help part vendors form consortiums for component assembly and supply. In addition to cost reductions, R&D options will develop when the vendors move into component supply.
- The EDB should identify the list of raw materials including steel, aluminum, and special plastics etc. that are used by the Motorcycle/Vendor industry. EDB should help form vendor coops for the import of these materials.
- The EDB should work to benchmark the local motorcycle assembly and component industry. Industry must be provided regional and global standards for it to increase its competitiveness.
- The EDB needs to be institutionally strengthened by better training of its staff and through recruitment of more professional staff.

3.5.2 PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY (PSQCA)

The Government of Pakistan established PSQCA in 1996. It started its operations in December 2000. Three organizations namely, Pakistan Standards Institution (now SDC), Central Testing Laboratories (now QCC) and Metal Industries Research and Development centre (now

TSC) have been merged in PSQCA to provide one window standardization, quality control and other technical services.

The PSQCA developed the first Pakistan Standard for the two wheeler auto vehicles in 2000. These standards incorporated the following standards: the Pakistan Standards, Japanese Standards, Canadian Standards, Thai Industrial Standard & the Environmental Protection Agency (EPA) regulations. The Standards were revised in 2004 taking into account changes in international emission standards.

Discussions with the OEMs and the Vendors regarding the functioning of the PSQCA have revealed that they are not satisfied and they strongly feel that this organization needs to be strengthened. It needs to be twined with a similar international organization to improve its performance.

Some of the major issues which came up through literature review and the above meetings along with their solutions are given below:

- All assemblers have to be certified by the PSQCA and this certificate is valid till the 12th month of the following year. PSQCA has developed standards for a) Braking system and components, b) parking stands, c) lead acid batteries and, d) emissions including smoke, carbon monoxide and sound. These standards have been developed for the 2 & 4 stroke motorcycles having engine capacity up to 150 CC. No standards for individual assemblies / parts / components have been notified; similarly engine performance standards other than for emission have not been defined. In the absence of standards for assemblies / parts / components, quality control standards vary from assembler to assembler and from vendor to vendor. It is recommended that the PSQCA develop standards for individual assemblies / parts / components supplied by vendors/ manufactured in-house by the assemblers or imported from foreign suppliers. This will help to standardize the quality of the locally assembled motorcycles.
- For imported parts, there is no check on the quality of the imported parts which means that cheap low quality parts are also being imported. Some of these parts find their way into the assembly process as “local vendor” parts because of their price and availability. In addition to posing threat to the safety of the rider, these inferior parts are also hampering the development of the local vendor industry. It is therefore proposed that PSQCA develop standards for all parts and include testing by an independent

certification authority(s) as a requirement for clearing imported auto parts.

- Major obstacle to export of motorcycles is non acceptance of PSQCA certification in the international markets. It is recommended that PSQCA upgrade its certification having an association with an internationally acceptable certification authority.
- A clause exists in the license issued for assembling of motorcycles to have in-house test benches. PSQCA should conduct random checks to find out if, these test benches are being properly used or not.
- Currently local component industry is unable to break into the large international auto part markets because it is, among other things unable to compete on quality. Although some of the vendors who supply to Japanese Assemblers are in a position to compete, they are not aware of the comparable European or American Standards; PSQCA should provide information on standards which are in place in different markets.

3.5.3 CENTRAL BOARD OF REVENUE (CBR)

The CBR is a part of the Ministry of Finance & plays an important role in developing the fiscal policy of the county. CBR is heavily involved in also implementing various revenue collection method tools used by the government for generating revenue. These may include corporate tax, income tax, sales tax, custom duties, etc. It has offices all over the Country. During the recent past, the CBR has undergone a major restructuring and modernization program.

OEMs both, PAMA & Non-PAMA members along with the component manufacturers have identified the CBR as a major “pain point” for the industry and its overall development. The specific areas include:

- By following what appears to be a non-standardized, non-transparent and non verifiable valuation methodology for imported parts and CKD kits, CBR is failing to provide a level playing field to the industry participants.
- In the absence of clear valuation procedures, shipments are being cleared against guarantees pending formal valuation. The valuation departments by and large are not processing the cases in a timely

manner. The Customs Department is not processing the valuation disputes putting pressure on the assemblers' cash flows.

- It has been reported that the CBR insists on, doing detailed sales tax audits of the industry. This is a time consuming, industry specific exercise.
- The CBR does not appear to be helping to bring the members of the value chain into the formal sector, this means that transaction costs are high and these increase cost to the final consumer.

Recommendations for making the CBR more relevant include:

- In consultation with stakeholders, methodology/formula for fair valuation of imported parts and CKD parts be devised, agreed values should also be applicable to parts imported for replacement market.
- Setting up of Motorcycle Tax Unit in the CBR which will be responsible for all tax matters which relate to the industry
- Motorcycle industry should be treated at par with other industries with regard to sales tax audits.
- Every effort should be made to bring value chain in the formal sector. Special emphasis should be given to importers of raw materials used in the industry.
- All custom collectorates should be electronically linked and stakeholders allowed access to verify values at which shipments are being cleared.
- A simplified export procedure should be notified.
- The CBR should work to change its image in the industry.

3.6 PROBLEMS FACED BY THE OEMs & THEIR SOLUTIONS

Survey of both PAMA & Non-PAMA OEMs revealed a number of problems faced by them. The following paragraphs contain a summary of the problems being faced along with their solutions

3.6.1 Problems of PAMA Member OEMs & their Solutions

Problem # 1: The Non-PAMA OEMs are indulging in large scale undervaluation of imported parts and components; this is giving them an undue cost advantage due to evasion of custom duties

Solution: Through the CBR's Motorcycle Tax Unit implement a proper system of valuation of imported parts and components to ensure proper levy of custom duties. Members of the valuation committee should have members from CBR, PAMA, PAAPAM and the larger Non-PAMA members.

Problem # 2: The Non-PAMA OEMs are indulging in sales tax evasion by not declaring actual production figures.

Solution: Centralized Registration of all new vehicles to avoid sales tax evasion. In addition the Motorcycle Tax Unit constitute a committee including members of PAMA, PAAPAM, CBR and larger Non-PAMA members

Problem # 3: The Non-PAMA OEMs are using imported parts purchased from local commercial importers and showing them as parts produced by the local component manufacturing industry

Solution: Better monitoring by the EDB & PAAPAM.

Problem # 4: Some of the Non-PAMA OEMs are fake units' setup to avail duty concession provided by the Government to the industry.

Solution: Better monitoring by the EDB

Problem # 5: Low investment requirements under TBS has made traders to become OEMs, this will hurt long term viability of the industry. (No evidence was found during the Study to substantiate this claim)

Solution: Better monitoring by the EDB

3.6.2 Problems of Non-PAMA OEMs & their solutions

Problem # 1: Customs is valuing parts and components imported from China at much higher prices than their actual price in China.

Solution: Put in place a mechanism which will ensure proper valuation of imported parts and components from China. There may be a committee or representatives from EDB, Customs, PAMA, Non-PAMA OEMs and PAAPAM to do this.

Problem # 2: Local component manufacturing industry is unable to produce and supply parts and components of the right quality and in the desired quantities.

Solution: Help develop the local vendor industry, PAMA is currently meeting its requirements from the local component industry.

Problem # 3: Constant harassment by the Sales Tax Department, it is claimed to be the only industry which is being subjected to detailed audit.

Solution: Greater interaction between OEMs and CBR representatives may be encouraged through mediation of the EDB

Problem # 4: Common die, design, tooling facilities are not available. This hampers minor changes in design

Solution: Provide common facilities in the Motorcycle Parks or Clusters being proposed for the motorcycle industry. Funds can be arranged from donors like the Government of Japan

3.6.3 Common Problems of PAMA & Non-PAMA OEMs & their Solutions

Problem # 1: Raw material cost is high

Solution: EDB help OEM cooperatives to be setup to import steel

Problem # 2: Land is expensive

Solution: Motorcycle Industry Parks be setup where OEMs and their parts and component suppliers be provided land at affordable rates

Problem # 3: Power is expensive & erratic

Solution: Motorcycle Industry Parks to have captive power generation based on gas, thus supplying power at cheaper rates.

Problem # 4: Trained Manpower is in short supply

Solution: Specialized training institutes be setup in the Motorcycle Parks or near current clusters.

Problem # 5: Most members of the supply chain are not in the formal sector; this does not allow benefit of value addition and increases transaction costs for the formal sector

Solution: Buy from formal sector and form coops so that the input tax on the main raw materials like steel can be passed on along the chain, CBR should ensure that members of the supply chains especially the importers are made part of the supply chain

Problem # 6: Technology from foreign sources is not easily available and is very expensive.

Solution: Technology Assistance Fund should be set-up to assist component manufacturers to acquire technology from foreign suppliers. Funding can be arranged from the Government of Japan.

Problem # 7: Financing facility on the lines of auto financing is not available from commercial banks for purchasing new motorcycles. Also motorcycles are not part of the Rozgar Scheme launched by the National Bank of Pakistan

Solution: SBP to instruct commercial banks to treat motorcycles under auto financing schemes. Also NBP be instructed to include motorcycles under the Rozgar Scheme.

CHAPTER 4 PARTS & COMPONENT SUPPLIERS (VENDORS)

4.1 BACKGROUND

The local parts & component suppliers also referred to as vendors have developed by working closely with the PAMA member OEMs. These OEMs were required under the deletion / localization / indigenization program to progressively use local components.

The rise in production of motorcycles in the past 5 years has led to increased demand for parts and components. The component industry has not been able to capitalize on this demand increase because of the reported preference of the Non-PAMA OEMs for cheaper imported parts from China.

The local component industry comprises mostly of SMEs. These numbers have been estimated at between 1,600 and 2,000. Only 10% of the component manufacturers are in the formal sector. Only the formal sector manufacturer maintains proper books of accounts and files Sales Tax and Income Tax Returns.

Most of the parts and components being supplied to the OEMs by the local component manufacturers do not require high levels of technology. As stated earlier they are SMEs employing on the average 30 to 40 persons. The total employment in the component industry is estimated at 45 to 50,000. The average investment per unit is estimated at Rs.2.5 million which translates into investment in the motorcycle component industry of approximately Rs.3.75 to 4.0 billion.

4.2 TRANSACTION BASED COSTING

As mentioned previously, only 10% of the component manufacturers are in the formal sector. The balance 90% suppliers are not registered with the sales tax department and as such do not issue sales tax invoices. This means that when the OEMs purchase from unregistered suppliers, they are not able to avail the input tax refund which was paid by the supplier on his raw material purchases.

Currently the sales tax rate is 15% on all supplies made to the motorcycle OEMs. For example if an OEM purchased components from unregistered suppliers worth Rs.10,000, he would receive an

invoice for Rs.10,000 and not one for Rs.11,500 which he would have received from a sales tax registered supplier.

When the OEM sells the final product say for Rs.40,000 he would have to calculate and deposit sales tax @ 15% of his selling price, which in this case would be Rs.6,000. If his suppliers had given the OEM sales tax invoices for Rs.11,500, the OEM would have been able to deduct the Rs.1,500 paid as sales tax from his final sales tax liability and deposit the difference which in this case would be Rs.4,500 and not Rs.6,000. This would affectively increase his profits or reduce his costs by Rs.1,500.

4.3 TARIFF & NON TARIFF PROTECTION

The component industry enjoys tariff protection under the Tariff Based System (TBS). Under the TBS, those parts which had been localized prior to 2004 carry an import duty of 50% while non localized parts carry a duty rate of 35%. As the motorcycle industry had reached substantial level of local content which in some cases was, as high as 90% with the 70CC model. The localized parts and components carry high levels of tariff protection. However this protection is not available for parts which are imported in CKD kit form.

Non tariff protection is provided by the EDB when it insists that OEMs either purchase localized components from Pakistani component manufacturers or else import them directly. OEMs are not allowed to purchase from the commercial importers.

4.4 PAKISTAN ASSOCIATION OF AUTOMOTIVE PARTS AND ACCESSORIES MANUFACTURERS (PAAPAM)

PAAPAM is the association of the automobile vendor industry in Pakistan. The Association is the link between the Assemblers and the vendor industry on the one hand and the Government of Pakistan and the Vendor Industry on the other. PAAPAM was instrumental in getting the deletion/ localization/ indigenization program implemented as vendors who could be classified as tier one suppliers had to be members of PAAPAM. In order to ensure that only genuine vendors supply to them, the OEMs require vendors to be PAAPAM members. Membership of PAAPAM is a long process aimed at ensuring that only genuine manufacturers qualify for membership, the process entails visits from PAAPAM committee members to verify production capabilities. In addition to OEMs, the EDB also requires PAAPAM

membership before it issues EDB certificates to the vendors to allow imports of raw material under concessionary duties.

PAAPAM has been trying to showcase the industry by holding annual auto part exhibitions and participating in international trade fairs. As PAAPAM is one of the better organized Trade Associations in Pakistan, it has been studied by various international donor agencies to explore the possibility of donor intervention to enhance both the institutional capacity of the Association as well to improve the competencies of its members.

Based on views gathered from the vendor industry and from analysis of available data, the areas in which PAAPAM may contribute include:

- a. Help in setting up and running of the Vendor Development Centres preferably near the Motorcycle Parks in Karachi and Lahore.
- b. Actively lobby with EDB to ensure continued proper implementation of TBS
- c. Help in setting up and running the Vendor Coops which can provide central buying of raw materials and services to the vendor industry.
- d. Arrange for industry specific training programs especially in the areas of technical training
- e. Lobby for representation on bodies formed for development of the engineering industry
- f. Change its management structure to have a more permanent advocacy body as compared to current ad hoc committees, may be on the pattern of PAMA with a full permanent Chairman and secretariat
- g. Work to develop a long term vision for the auto component industry keeping the long term vision of the auto sector in perspective

4.5 PROBLEMS FACED BY COMPONENT MANUFACTURERS & THEIR SOLUTIONS

Survey of the component manufacturers supplying to both the Japanese and the Chinese OEMs revealed a number of problems being faced by them. The following paragraphs contain a summary of the problems being faced along with their solutions. The percentage signs in brackets indicate % of respondents who felt that this was a major problem.

Problem #1: Utilities like electricity, gas etc., are expensive and their supply is erratic (100.0%).

Solution: Move component suppliers into Motorcycle Parks or clusters and provide them electricity through gas powered generation plants.

Problem # 2: Land is expensive (95.0%)

Solution: Move component manufacturers into Motorcycle Parks or clusters and provide them land at affordable prices.

Problem # 3: Non availability of skilled workers (64.0%)

Solution: Upgrade vocational skill centres and setup training facilities in the Motorcycle Parks or vendor clusters.

Problem # 4: Cheap under invoiced imports are damaging the local vendor industry (95.0%)

Solution: Formulate and implement mechanism for fair valuation of imported parts through a committee comprising representatives of EDB, Customs, OEMs and PAPAAM. The local component industry is effectively out of the Replacement Parts market because of the availability of under invoiced parts. In addition there is no guarantee that the parts which are imported are of the required quality. The manufacturer or importer in most cases cannot be traced in case any part fails

Problem # 5: Locally available raw material is expensive as compared to regional competitors (91.0%)

Solution: Form vendor buying coops to reduce cost by buying in bulk

Problem # 6: Sales Tax and other government departments are victimizing the local vendor industry (77.0%).

Solution: Increase contacts between component manufacturers and relevant departments, EDB can act as mediator.

Problem # 7: Engineering Development Board is not monitoring and upgrading the localized parts list. This list has not been updated since 2004 (59.0%).

Solution: PAAPAM should get the list updated on a quarterly basis by working closely with EDB.

Problem # 8: Inconsistent Government policies (73.0%)

Solution: Lobby from PAAPAM's platform

CHAPTER 5 EXPORT STRATEGY

As already stated, Asia has become the world's production centre for Table 10 shows the major Asian producers and their exports:

**Table – 10
Major Asian Producers & Exporters of Motorcycles**

S. #	Country	Total Production 000's	Total Exports 000's	Exports as % of Production
1.	China	17,000	6,971	41.0%
2.	Thailand	3,000	800	28.0%
3.	India	7,700	513	7.0%
4.	Vietnam	2,000	100	5.0%
5.	Pakistan	751	7	1.0%

Source: SIAM

Table 11 compares the industry characteristics among the regional competitors

**Table – 11
Comparison between Industry in Regional Competitors**

	China	India	Vietnam	Thailand	Pakistan
C & F Price US\$	344	530	533	501	595
Total Duty CBU Import	30.0%	90.0%	100.0%	116.0%	90.0%
Total Duty CKD	10.0%	12.5%	30.0%	33.0%	30.0%
Total Duty Parts	18.0%	46.0%	50.0%	40 – 105%	35 – 50%
Direct Tax as % of revenue	54.0%	44.0%	55.0%	51.0%	5.5.0%
Indirect Tax as a % of revenue	46.0%	56.0%	45.0%	49.0%	94.5.0%
Number of OEMs	200 (56 Foreign)	9	12 down from 60	5	43 (03 Japanese)
# of manufacturers exporters (export houses)	67 (555 export houses)	7	3	5	1
Avg Export / OEM	104,054	73,322	33,333	166,200	7,082

Source: Auto Component Manufacturers Association (ACMA), India, Society of Indian Automotive Manufacturers (SIAM)

The industry is basically volume driven. In all cases, this critical mass has been provided by domestic demand. Pakistan produced more than 750,000 units in 2005 – 06 and its domestic demand is projected to grow to 1.7 million by 2010 – 11.

5.1 REGIONAL COMPETITORS

5.1.1 CHINA

As already stated above, China is the largest exporter of motorcycles. Some of the advantages which the Chinese industry enjoys are:

- Strong domestic demand of more than 10.0 million units
- Huge investment by Japanese OEMs
- Low cost of infrastructure – land, utilities are all state subsidized
- Government support to export industries in general
- Encouragement to component manufacturers who supply to the OEMs
- Market presence in 200 Countries Worldwide
- Availability of most raw material locally
- As shown in Table 11 China’s indicators are more favorable than all its competitors

5.1.2 INDIA

The Indian industry enjoys the following benefits in pursuit of its export strategy:

- Strong domestic demand of more than 7.2 million units
- Vibrant component manufacturing industry with a strong technical base
- Comprehensive consensus built road map for development of both OEMs and component sector through both SIAM & ACMA
- Most raw material locally available
- Strong presence in regional and African markets
- Japanese OEMs exporting local JV production, also participating with local companies in forming JVs in third countries
- Strong manufacturing capability, eyeing the quality conscious European markets

5.1.3 THAILAND

The Thai industry is being driven by “Detroit of Asia” Vision

- 3rd largest auto industry and motorcycle producer (3 million units in 2005)
- Aiming to become regional assembly hub, strong infrastructure support program provided by the government including auto clusters, training, component development etc.
- Preferential exports to ASEAN countries
- Japanese brands dominate

5.1.4 VIETNAM

The Vietnamese industry has emerged stronger after the recent failure of a large number of smaller companies where the number of producing units came down from 60 to 12. The current export strategy being followed by Vietnam includes:

- Short term strategy aimed at clearing stocks, dumping at below costs in certain instances
- Exporting to ASEAN due to preferential treatment
- Some penetration of the African market
- Presence of Japanese OEMs and low costs coupled with strong domestic demand of 1.9 million can help make it a major player

5.2 PAKISTAN EXPORT POTENTIAL

As already stated above, Pakistan's domestic market has reached the critical mass which may lead to further economies of scale. It is therefore important to put in place measures which not only sustain domestic demand growth but also encourage exports.

As stated in Chapter 2, the total production of motorcycles is likely to reach 1.7 million units by 2010 – 11. Out of this, the local OEMs should aim to export 100,000 units to Bangladesh, Sri Lanka, Afghanistan, the six Central Asian Republics and selected East African countries like Eritrea, Somalia, Ethiopia, Djibouti, Kenya, Uganda, etc.

5.2.1 PROPOSED MEASURES FOR INITIATING EXPORTS

At the moment Pakistan does not have an export strategy which facilitates exports of either motorcycles or components. Although the domestic market is reasonably well protected under the TBS, yet no significant industry specific measures and support is provided to the

OEMs or component manufacturers. In 2005 – 06 only Atlas Honda reported exports of motorcycles to Afghanistan and Bangladesh. Dawood Yamaha also exported some units to Afghanistan. However their numbers could not be confirmed. As suggested by the OEMs, following measures will be required to make exports from Pakistan possible:

- Refund of the customs duty paid on raw materials used by component industry, Industry estimates that this would reduce prices by about US\$85 per unit
- As freight from Pakistan is very high, it is suggested that this be refunded from the Export Development Fund as has been done for many other products e.g. fruits, vegetables, leather garments and non traditional export items The impact of this measure is expected to reduce export prices by another US\$30
- An Auto Tax Collection Unit be setup within CBR where all taxes including customs duty, sales tax, excise duty, corporate tax may be collected under one roof thereby leading recording at one place which will ease in refunds in case of exports
- Atlas Honda feels that it can export 100,000 units if the above facilities are provided. Dawood Yamaha and Suzuki were not committal citing international market rights

The Chinese OEMs on the other hand have stated that they have not been able to export their product as they lack an internationally acceptable quality certification. Sohrab has mentioned that they are considering exporting to Bangladesh.

5.2.2 CURRENT CAPABILITY LOCAL OEMs

❑ ATLAS HONDA

In anticipation of being able to export from Pakistan, Atlas Honda has taken the following measures:

- Setup a new world class production facility near Lahore which can assemble a motorcycle in 35 seconds. This is regarded as one of the most modern Honda plants worldwide
- Atlas Honda has successfully negotiated global rights with Honda Japan to export the 70CC motorcycle and regional rights for the 125CC motorcycle
- Honda Japan has acknowledged the quality standards and commitment of Atlas Honda

- Atlas Honda has helped upgrade capabilities of its component manufacturers to international standards
- Achieved 93.0% localization which gives them a cost advantage
- Worked actively with their supply chain to reduce costs of the components
- As arranged over 20 technical collaborations for its vendors in Pakistan with the Japanese manufacturers
- Forcefully presenting their case at all forums

❑ DAWOOD YAMAHA

Dawood Yamaha is manufacturing the 100 CC Yamaha motorcycles, it has taken the following steps to increase production and start exports:

- Increased plant capacity from about 72,000 units to 100,000 units per annum.
- Negotiated with Yamaha exclusive marketing rights for Afghanistan and exported some units in 2005. Dawood Yamaha has not been refunded customs duty by the CBR on CBUs exported to Afghanistan.
- The local sponsors of Dawood Yamaha has setup Baluchistan Engineering, a most modern motorcycle component manufacturing unit

❑ SUZUKI MOTORCYCLES

- The Suzuki Motorcycles Pakistan Limited is 84% owned by Suzuki Japan. It is currently producing only 20,000 units of 100, 110, 125 & 150CC capacity.
- The installed capacity of the plant is over 100,000 units which the management is planning to utilize in the next five years.
- Suzuki is currently concentrating on the domestic market where it is investing in developing its dealer network.
- Also the company is investing to develop its vendors
- The Company at the moment has no rights for exports, however on a country to country basis permission maybe obtained

CHAPTER 6 CONCLUSIONS & NEXT STEPS

From the discussions and analysis in the previous chapters, following conclusions maybe drawn:

6.1 OBSTACLE # 1

The demand for motorcycles is stagnating at 750 – 775,000 units per annum. This does not give the required critical mass for the development of the industry and for generating exports.

Solution: The market can be substantially increased through provision of bank financing for purchases of motorcycles as it is available for automobiles, three wheelers, Luvs, trucks etc.

Impact: The above will effectively increase the market to the projected level of 1.7 million units by 2010 -11. This will create additional 0.5 million jobs, as in the motorcycle industry 0.5 jobs are created, for each additional unit of production.

In addition it will generate additional Rs.20.24 Billion as Sales Tax, and additional Custom Duty on CKD at Rs.13.60 Billion. The Provincial Governments will also receive additional revenue in the form of new motorcycle registrations and annual fee to the extent of Rs.5.4 Billion as shown below:

**Table - 12
Impact of Recommendations for Increasing Market**

Year	Additional Sales Units	Additional Sales Tax @ Rs.7,500/Unit	Additional Custom Duty Rs.5,000/Unit	Additional Employment	Add. Revenue Registration at Rs.2,000/Unit
2006 – 07	140,000	Rs.1.05 Bil.	Rs.0.70 Bil.	70,000	Rs.0.280 Bill.
2007 -08	300,000	Rs.2.25 Bil.	Rs.1.50 Bil.	150,000	Rs.0.600 Bill.
2008 09	500,000	Rs.3.75 Bil.	Rs.2.50 Bil.	250,000	Rs.1.000 Bill.
2009 – 10	750,000	Rs.5.65 Bil.	Rs.3.75 Bil.	375,000	Rs.1.500 Bill.
2010 – 11	1,030,000	Rs.7.75 Bil.	Rs.5.15 Bil.	500,000	Rs.2.060 Bill.
Cumulative	2,720,000	Rs.20.45 Bil.	Rs.13.60 Bil.	500,000	Rs.5.440 Bill.

6.2 OBSTACLE # 2

Tax incidence of locally manufactured motorcycles is very high rendering them uncompetitive in the export markets. The cost of production of a 70 CC motorcycle in Pakistan is US\$595 versus US\$530 for India, and US\$501 for Thailand.

Solution: Exports can be initiated in big way through:

- Give the R&D support of 15% of the free on-board (FOB) cost per motorcycle unit imported.

This will enable export from Pakistan @ US \$ 500 per unit.

Impact: It is estimated that Pakistan will be able to export 100,000 units by 2010 -11 resulting in Foreign Exchange earnings of US\$50.0 million in 2010 -11. This will continue to increase in the following years provided the recommendation actions are sustained.

6.3 OBSTACLE # 3

Cost of locally manufactured components is generally considered high.

Solution: Cost of producing parts and components locally can be brought down by:

- Establishing raw material coops under the Private Sector Associations to reduce prices of all raw materials
- Establishment of Motorcycle Parks in Lahore, Sheikhpura, Karachi and at Hub with self generation of electricity based on gas, provision of land at reasonable rates, and common facilities for training and testing
- Establishment of Technology Acquisition Fund to assist parts and component manufacturers to acquire technology

The above three steps will help in reducing the cost of locally produced parts and components.

Impact: The extent of these measures cannot be easily estimated at present

6.4 NEXT STEPS

In order to implement the above and other recommendations made in Chapters 3, 4 & 5, following steps maybe taken urgently:

1. Banks and Non Banking Financial Institutions (NBFI's) through SBP & SECP should be instructed to start financing purchase of motorcycles. The National Bank of Pakistan maybe instructed to include two-wheelers in the President's Rozgar Scheme.
2. Establish a Motorcycle Unit in the CBR to handle tax refunds and freight subsidy issues along with valuation of imported components etc. in collaboration with EDB, PAMA & PAAPAM. Measures also be undertaken to reduce the incidence of indirect taxes
3. Feasibility Studies along with detailed implementation plans to establish:
 - Raw material coops to be established under private sector lead associations in a transparent manner.
 - Motorcycle Parks, and;
 - Technology Acquisition Fund under a mechanism where there is adequate participation of private sector, bilateral funding agencies and academia.
4. Both EDB and the PSQCA need institutional strengthening. In this regard following maybe undertaken:
 - Institutional Assessment of EDB
 - Institutional Assessment of PSQCA
 - Arrangement of twining with similar organizations from the European Union or North America

ANNEXURES

Annexure 1: List of Motorcycle Assemblers / OEMs in Pakistan

Annexure 2: List OEMs & Vendors met, interviewed and surveyed

Annexure 3: Material Reviewed

Annexure 4: Global Motorcycle Industry

Annexure 1: List of Motorcycle Assemblers / OEMs in Pakistan

Annexure 1: List of Motorcycle Assemblers / OEMs in Pakistan

Aid#	Designation	Company Name	Address	Phone & Fax
1	Chief Executive	Atlas Honda Limited	1-Mcleod Road, Lahore-54000.	Tel: 042-7225015-17 8 Fax: 042-7351119
2	Managing Director	Dawood Yamaha Ltd.	40-C, Block-VI, PECHS, Karachi- 75400	Fax: 021-4546777
3	Managing Director	Suzuki Motorcycles Pakistan Ltd.	F-14, SITE, Mauripur Link Road, Karachi- 75730	Fax: 021-2563895
4	Chairman	Pakistan Cycle Industrial Cooperative Society Ltd.	1-Bank Square, Shahrah-e-Quaid-e- Azam, Lahore	Tel: 042-7320126 Fax: 7235143
6	Managing Director	Plum Qingqi Motors Ltd	Dewan Centre, 5- Temple Road, Lahore	Fax: 042-7211509
5	Director	Fateh Motors Ltd.	A-114, Block-II, Near Mehdi Tower, SMHS, Main Sharh rah-e- Faisal Karachi,	Tel: 021-4313115-117 Fax: 021-4312908
7	Chief Executive	Pak Hero Industries (Pvt) Ltd	Noor Arcade, 111 Lytton Road, Lahore	Tel:042-7358579 Fax: 7357580
8	Chief Operating Officer	Dewan Motorcycles Limited	Plot # 6126, Block B, Jamaluddin Road, Muhammadi Masjid, Shershah, Karachi	Tel: 021-2580075-77, 2566833 Fax: 021-2566834
9	Chief Executive	Memon Associate Foundry	A-13, SITE Area, Badin Bus Stop, Hyderabad	Tel:0221-880502 Fax: 881424
10	Chief Executive	Metro Hi-Tech (Pvt.) Ltd.	G.T. Road, Gujrat	Tel :053-3525201 Fax :053-3525209
11	Proprietor	Excel Industries	Syed Irshad Ali Road, Opp: Zainabia Trust, 11-Km, Multan Road, Lahore	Fax: 5221599
12	Managing Director	United Sales	10-G, Bilal Center, Nicholson Road, Lahore	Tel: 042-6308034
13	Managing Director	Super Asia Motors (Pvt) Ltd.	G. T. Road, Gujranwala	Tel: 0431-272801-5 Fax: 0431-271238
14	Managing Director	Raja Autocars Ltd.	Bhimber Road, Mirpur AJK	Tel: 058640-42083-86 Fax: 058640-42085
15	Managing Director	Shafiq Sons	F-45-534, Station Road, Hyderabad- 71000	Tel: 0221-782626-7
16	Managing Director	New Asia Automobiles	Manzoor Park, Zahoor Road, Near Saggian Bridge, Lahore	Tel: 042- 7585859,7590655

Aid#	Designation	Company Name	Address	Phone & Fax
17	Managing Director	Sitara Auto Impex	1 Rabia Manzil Plot# 341-P, AM 18 Akbar Road, Karachi-74200	Tel: 021-7732255 Fax: 7732655
18	Managing Director	Suleman Auto Industries (Pvt) Ltd,	S-38, R-237 C/1, Circular Road, Near Nigar Cinema, Lahore	Tel: 7312452 Fax: 7991174
19	Managing Director	Toyo International Motorcycle	GT Road, Gujranwala	Tel: 0431-555501-3 Fax: 842315
20	Managing Director	Ahmed Automobile Co.	1st Floor, Shaes Center, SB-25, Gulshan-e-Iqbal, University Road, Karachi	Tel: 021-4985842, 4982724, Fax: 4800589
21	Managing Director	King Hero Motorcycle Industries	Opp: Galaxy Cinema, Near Wannia, Sialkot Bypass, Gujranwala	Tel: 0431-203041, 202479
22	Managing Director	HKF Engineering (Pvt) Ltd.	65-Badami Bagh Lahore	Tel: 042-7700337 Fax: 7724272
23	Managing Director	ZXMCO Pakistan (Pvt) Ltd	Defence Road, Off. Raiwind Road, P.O Valencia Town, Lahore	Tel: 042-5322971, 5322872-3 Fax: 042-5320378
24	Managing Director	Blue Star Automobile	Ittefaq Park, Moman Pura Road Lahore.	Tel: 042-6552028, 6533662 Fax: 042-6533661
25	Managing Director	AB Engineering (Pvt) Ltd.	F-563, Workers Avenue, Sindh Ind. Trading Estate, Karachi.	Tel: 2563158 Fax: 2578717
26	Managing Director	Ali Raza Industries (Pvt) Ltd.	F-4 Industrial Estate, Multan	Tel: 061-537941-2 Fax: 583593
27	Managing Director	Sonica Auto Industries (Pvt) Ltd.	G.T. Road, Near Pindi Bypass, Gujranwala	Tel: 431-891663, 890471, 893654 Fax: 0431-890471
28	Managing Director	D.S. Motors	# 36/37, Sindh Small Industries Corp. Estate, SITE, Hyderabad	Tel: 0221-883686-87 Fax: 880705
29	Managing Director	Raazy Motor Industries	57-A, SITE, Area, Indus Chari, Hyderabad	Tel: 0223-883964 Fax : 0222-864585
30	Managing Director	Rafiq Engineering Industries (Pvt) Ltd.	17-Lawrence Road, Lahore	Tel: 042-6302986 Fax: 042-7576942
31	Managing Director	Omega Industries	Baghdadi House Road, 19-KM Multan Road, Lahore	Tel: 042-7514066, 8411232 Fax: 042-7513279 Cell No. 0300-

Aid#	Designation	Company Name	Address	Phone & Fax
				4282278
32	Managing Director	Habib Motorcycles (Pvt) Ltd.	4th Floor Imperial Court, Dr. Ziauddin Ahmed Road, Karachi-75530.	Tel: 021-5680036-44 Fax: 021-5684086
33	Managing Director	N.J Auto Industries (Pvt) Ltd	Noor House First Floor, Darya Lal Street, Jodia Bazar, Karachi	Tel: 021-7510442-3
34	Managing Director	Eagle Industries (Pvt) Ltd.	H/O 8, 9, 10-N, Factory Areas, Gulberg-II, Lahore	Tel: 042-5752766 Fax: 5756715
35	Managing Director	Master Motorcycles (Pvt) Limited	82-C/I, Gulberg-III, Lahore.	Tel: 042-5751905 & 5750895 Fax: 042-5824731
36	Managing Director	Crown Motorcycle Company	Crown Lifan's Plaza, Opposite: Taj Mahal Market, M.A. Jinnah Road Karachi.	Tel: 021-2735205 / 2761339 Fax: 021-2724872
37	Managing Director	Baweja Automobiles	Regent Plaza Hotel, Shahrah-e-Faisal, Karachi	Tel: 021-565-7045 & 46 Fax: 021-565-7080
38	Managing Director	Babar Auto Trading & Manufacturing Co.	3 & 4, Plot No. 339/340, AM-19 Akber Road, Karachi-74200	Tel: 021-2721803 Fax: 021-2761340
39	Managing Director	Specialized Motorcycles (Pvt) Ltd., Karachi	Plot No. 23, Sector-19, Korangi Industrial Area, Karachi-74900.	Tel: 021-5065001-5 Fax: 021-5057453-4
40	Managing Director	Moon Traders, Karachi	1-A, Rabia Manzil, Plot # 341-P, AM-18, Akbar Road, Karachi-74200	Tel: 021-7749016 Fax: 7749017
41	Managing Director	Ghani Automobile Industries, Lahore	Ghani Complex, 49-Shadman-1, Lahore-54000	UAN: 111 949 949 Fax : 042-7576431
42	Managing Director	Master Engineering Co. (MECO), Lahore	Kot Lakhpat, Jail Road, Chungi Amar Sidhu, Lahore	Tel: 042-5811399, 5822566 Fax: 5823339, 7352121
43	Managing Director	Buraq Motor Co., Lahore	Katar Bund Road, Street No. 1, Thokhar Niaz Baig, Off Multan Road, Lahore.	Tel: 042-5426431-3 Fax: 042-5412269
44	Managing Director	Stahlco Automobile, Lahore	6.5 KM, Raiwind Road, Lahore.	Tel : 042-5322001-8 Fax : 5322009-10

Aid#	Designation	Company Name	Address	Phone & Fax
45	Managing Director	Pacific Motor Co. (Pvt) Ltd.	31-Km, Ferozpur Road, Lahore-53100	Mobile: 0300-9561542
46	Managing Director	Leena Industries (Pvt) Ltd.	104, Amin Mansion, GT Road, Peshawar	Tel: 091-5287367 Fax: 091-5840298
47	Managing Director	Star Asia	Harbancepura Road, P.O. Tajpura, Lahore	Tel: 042-6632167, 6632045 Fax: 042-6632359
48	Managing Director	Sazgar Engineering Works Ltd.	18 Km Raiwind Road, Lahore	Tel: 042-5330300-3 Fax: 042-5330329
49	Managing Director	Pak Power Industries (Pvt) Limited	Main Road Kotli Pir Abdul Rehman, Behind Pakistan Mint, Adjacent (Ideal Home) Shalamar Bagh, Lahore.	Tel: 042-6552491, 042-8406645
50	Managing Director	H.M.S. Automotive Industry (Pvt) Ltd	1.5 KM, Sialkot By Pass, Sialkot Road, Gujranwala.	Tel: 055-3200678, 4000624 Fax: 055-3200692
51	Managing Director	Sameer Motor Industries	ST-18, Block-7, Federal "B" Area, Karachi-75950.	Tel: 021-6324034 , 6320301
52	Managing Director	Al-Mehran Auto Industry	Plot No. A/23, Beside M.C.B Bank, S.I.T.E., Near Fateh Chowk, Autobhan Road, Hyderabad.	Tel : 0300-2017598, 0300-2018930
53	Managing Director	Shama Enterprises Engineering Works	Plot NO. 846, Block-10, Sector-10, Near Arshi Masjid, Site Area, Orangi Town, Karachi.	Tel: 021-6691239
54	Managing Director	Tiger Auto Industries	27-S, Industrial Area, Kot Lakhpat, Lahore.	Tel : 042-5150868, 5125874 Fax : 042-5125851
55	Managing Director	Pak Star Enterprises	Usman Market, Naway Kaley, Airport Road, Mingora Swat	Tel: 0946-812036, 813827, Fax: 0946-818693
56	Managing Director	Smart Automobiles	132, GT Road, Baghbanpura, Lahore	Tel: 042-6856802 Fax: 042-6811965 Cell: 0300-4239809
57	Managing Director	Sara Automobile Industries	8-20, Secretariat View, AM 20, Al-Karam Building Frere Road, Saddar, Karachi	Tel: 021-2736973 Fax: 021-2742124
58	Managing Director	Roma Motor Company	Roma Chamber, G-1, Block 7 & 8, Commercial Area, K.C.H.S., Off.	Tel: 021-4553700, 4551622 Fax: 021-4553824

Aid#	Designation	Company Name	Address	Phone & Fax
			Shahrah-e-Faisal, Karachi	
59	Chief Executive	A.S Auto Industry	A-13, S.I.T.E. Area, Badin Bus Stop, Hyderabad.	Tel: 022-3881424, 3881445 Fax: 022-3881287
60	Chief Executive	Aiwa Industries	16-Ravi Market, Madina Town, Faisalabad.	Tel: 041-712646, 531660-1 Fax: 041-724898
61	Chief Executive	Khyber Automobile Industries	Plot No. 08, Risalpur Industrial Estate, EPZ. Risalpur, Nowshera, NWFP.	Tel: 0937-881286 Fax: 0937-881512.

Annexure 2: List OEMs & Vendors met, interviewed and surveyed

**Annexure 2: List OEMs & Vendors met, interviewed and surveyed
(in alphabetical order)**

S#	Loc	Name of Company	Address	Contact Person	Designation
1	1	A.M.B. Techniques	Jia Musa, Sheikhupura Road, Shahdara, Lahore	A.M. Bajwa	Proprietor
2	2	AB Engineering (Pvt.) Ltd.	F-563, Workers Avenue, S.I.T.E Karachi		Director
3	1	Affaq Corporation	299 Small Industrial Estate, Kot Lakhpat, Lahore	Shehzaad Iqbal	Proprietor
4	1	Al-Badar Engineering Co.	Factory-1 25-km Lahore-Sheikhupura Road, Sheikhupura	Muhammad Mushtaq Butt	CEO
5	1	Allied Engineering Product Services	Shadbagh Road, Near Asif Kanta, Lahore	Haji Abdul Rauf	Proprietor
6	1	Alpha Engineering	3 km from Jorapul Harbanpura Rd, Opp. Bait-ul-Huda School Lahore	Usama Usman	Partner
7	1	Association of Pakistan Motorcycle Assmebelrs (APMA)	H/O S-38, R-237 Circular Rd, near Nigar Cinema - Lahore	Salman Saleem	Gen. Secretary
8	1	Atlas Honda Limited	26/27 Km. Lahore-Skp Road, Sheikhupura	Riaz Ahmed Butt	Manager Admin. & I.R.
9	1	Atlas Honda Limited	1-Mecleod Road, Lahore	Maqsood Ahmad Basra	GM Corporate Affair
10	1	Atlas Honda Limited	26/27 Km. Lahore-Skp Road, Sheikhupura	M Khalid Aziz	Mgr. Operations
11	2	Babar Auto Trading & Manufacturing Co.	Factory D-13, SITE Super Highway, Karachi H/O Plot-339/340 AM-19 Akber Rd, Karachi	Farooq M. Sheikh	Representative
12	2	Badar-e-Tauseef Engineering Works	CL-227, Sector 6-B, Industrial Area, New Karachi, Karachi	M. Badar Shah	Proprietor

S#	Loc	Name of Company	Address	Contact Person	Designation
13	2	D.S. Motors	Plot # 34-38, Sindh Small Industries Estate, Site Hyderabad	M. Asif Memon	Admin. Executive
14	1	Fabman Engineering (Pvt.) Ltd.	18½ km, Ferozpur Road, Lahore	Tariq Nazeer	Director
15	2	Fateh Motors Ltd.	A-56 SITE Hyderabad	Abdul Rauf	Manager Sales & Marketing
16	2	Friction Materials Components	DP-23/1, Sector 6b, North Karachi Industrial Area, Karachi	S. Reza Baqir	Director
17	2	Grace Accumulators	Plot # 129 Sector # 24, Road # 2/5000, Korangi Industrial Area, Karachi	Abdul Mallick Zafar	CEO
18	1	Haji Dost Mohammad Industries	16-A, Hussain Buksh Park, PECO Road, Lahore	Muhammad Yusuf	Partner
19	1	Hightech Electric Engineering. & Services	21 km Ferozpur Road, Lahore	Jamil Ahmed	CEO
20	2	Imza Engineering Company	S-5-6, Block W, North Nazimabad, Karachi	Engr. Ishrat A Siddiqui	CEO
21	1	Kabir Int. Manufacturing & Trading Co.	Shamshad Plaza, Old Tyre Market, Near Railway Station, Lahore	Tahir Mehmood	Proprietor
22	1	M.N. Nadeem Brother	Masjid Tehkhana Showari, Mughalpurah Lahore	Muhammad Nisar	Proprietor
23	2	Memon Associate Foundry	Plot No.G-4 Hashmi Colony Opp: Zeal Pak Site Hyderabad	Dr. M. Naeem	
24	2	Moon Star Motors Corporation	2 Sidsons Building, Preedy Street Saddar, Karachi-74200	Muhammad Yousuf Shaikh	CEO
25	2	Moon Star Motors Corporation	2 Sidsons Building, Preedy Street Saddar, Karachi-74200	Imran Shafiq	Director

S#	Loc	Name of Company	Address	Contact Person	Designation
26	1	MRF (Pvt.) Ltd.	E-26, Al Noor Town, Walton Road, Lahore	Mujeeb-ur-Rehman	M.D
27	1	Mughal Engineering Works	Ghazi Park, PECO Road, Kot Lakhpat, Lahore	Bashir Ahmed	Proprietor
28	2	Multi Tech Engineering	Plot C.1.77, Sector 9/E, Orangi Town, Karachi	Syed Shan-e-Ahmed	CEO
29	1	Pak Spring & Engineering. Co.	Kot Lakhpat - Lahore	Sheikh Fahim Anwer	Director
30	1	Pakistan Association of Parts & Accessories Manufacturer	C/o Abdullah & Hurts Casters, Habancepura, Post office Tajpura, Lahore	Muhammad Abdullah	Member Management Committee
31	1	Power Piston	Bund Road, Badami Bagh, Lahore		Director
32	2	S M Engineering & Metal Works	Sector 50-C, Plot D/30 Korangi Industrial Area, Karachi-74900	Syed Mohammad Ishtiaq	Proprietor
33	2	Shahid Engineering Works	C-1/104, Sector 12-C, Industrial Area, North Karachi	Rafat Dost Mohammad	Manager
34	2	Sheerani Engineering	Plot 2, Sector 12-A, North Karachi	Mahmood Alam	Proprietor
35	2	Sitara Auto Impex	Show Room #1 Plot No.341-P Rabia Manzil, AM-18 Akbar Road, Karachi-74200	Muhammad Sabir Shaikh	CEO
36	2	Speedy Tools	212, 2nd Floor Seema Electronics Centre, Behind Hashoo Centre, Saddar, Khi	Abdul Samad Malik	Not given
37	1	Unitech Auto Industries	13 km Sheikhpura Road, Kot Abdulmalik, Lahore	Jawed Hafiz	CEO
38	1	United Sales	21-km Ferozepur Road, Lahore	Sana Ullah Ch.	Managing Director

Annexure 3: Material Reviewed

Annexure 3: Material Reviewed

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Annexure 4: Global Motorcycle Industry

Annexure 4: Global Motorcycle Industry

Global motorcycle production increased from 30 million in 2004 to 40 million in 2005. Asia is the major producer of motorcycles in the world with 90% of the global/international share¹. Within Asia, China produces/manufacturers 17 million units, India is in second position with 7.7 million units, and other countries such as Indonesia, Thailand, Vietnam and Taiwan are comparable with their sizeable annual productions. Table 1 shows the contribution of individual countries to world production of motorcycles.

Table - 1
World Production of Motorcycles–2005

Rank	Country	Production (000's Units)	% Share of World Production
1	China	17,000	42.50%
2	India	7,700	19.25%
3	Indonesia	5,089	12.50%
4	Thailand	2,114	5.25%
5	Taiwan	1,500	3.75%
5	Vietnam	1,500	3.75%
6	Pakistan	743	2.00%
7	Japan	707	2.00%
8	Philippines	493	1.25%
9	Malaysia	433	1.25%
10	Others	2,721	6.75%
	Total	40,000	100.00%

Source: The Federation of Asian Motorcycle Industries (FAMI) – September 2006

The reasons behind the rise of Asia as the major motorcycle producing region include:

- a. Increasing consumer affluence; there is a positive correlation between consumer income and motorcycle purchase, however, after a certain point any further increase in income leads to a shift from motorcycles to automobiles. This trend has already been witnessed in Japan, Taiwan and South Korea, however in the bulk of the Asian markets, including China & India, there is still some distance to cover.
 - b. Greater urbanization; this coupled with increasing income leads to a greater desire for mobility. This trend is currently being witnessed in China, India and Vietnam.
 - c. Lower prices and faster model changes; the motorcycle industry is a volume driven industry, a certain critical mass is required before prices can start dropping and faster new model introductions become feasible. This critical mass has been achieved in Asia.
2. The global market is dominated by the Japanese motorcycle manufacturers namely Honda which has 30% of the world market and Yamaha and Suzuki who between them control another 20%. The bulk of the manufacturing done by Japan is in the Low Cost

¹ In 2004 the global motorcycle production is reported by the Research & Planning Committee of FAMI at 34 million units with 29 million of that having been produced in Asia (i.e. 85% of the total).

Countries (LCC) such as China and India. The Japanese despite having a strong manufacturing presence in China have not been able to dominate the Chinese market primarily because of strong local Chinese brands such as Guangzhou Motors, Zongshen Motorcycle, Shanghai Feiling Motorcycle, and scores of smaller manufacturers who control more than two-thirds of the domestic market.

3. In the mass market segment for midsize street bikes Chinese rivals undercut Japanese rivals, in some cases, by about 30% on price. However it should be stressed that the Chinese are mostly making copies of successful Japanese designs.
4. Following the Japanese and the Chinese examples, the Indian motorcycle industry has also started setting up off shore manufacturing facilities. The TVS Group is in the process of setting up a 300,000 unit a year production facility in Indonesia, for models to be sold in India.