The Role of Small and Medium Enterprises in Supplementing Large Industries in Pakistan with Particular Emphasis on Automobile Industry

Aslam, Muhammad

8 December 2005

CHAPTER - I

INTRODUCTION

Small and medium enterprises (SMEs) are usually small, owned or family-managed businesses producing goods and services being basic. SMEs are one of the principal driving forces in economic development. They stimulate private ownership and entrepreneurial skills; they are flexible in management and can adapt quickly to changing market demand and supply situations; they generate employment, help in diversifying economic activities and make a significant contribution to exports and trade.

There is a growing interest in the role of SMEs in economic development**.** SMEs have a number of acknowledged characteristics that arguably make them more, rather than less, important to modern economies. They form by far the largest number of enterprises; they employ more workers per unit of capital than large enterprises; they contribute towards achieving a more equal income distribution in society; they have a favorable impact on regional development; they serve as a "training platform" for upgrading and developing skills of industrial workers and entrepreneurs; they contribute significantly to establishing forward and backward linkages; and they play a vital supplementary role to large and giant firms in the economy. This paper attempts to examine these aspects of the strategic contribution of SMEs in economic development and supplementing of large-scale industries with particular emphasis on SME issues and role in economic development of Pakistan.

Pakistan's economy is an economy of SME. Policies in the past have given a general perspective, direction and defining broad parameters of activity within the macroeconomic framework, but efforts have focused on the large enterprises, neglecting SMEs, which are at the heart of our economy. Our SMEs suffer from a variety of weaknesses, which have constrained their ability to adjust to the economic liberalization measures introduced and to take full advantage of rapidly expanding markets of the world. But SMEs importance and contribution in the economic activity suggests that there is a significant potential to enhance their growth through appropriate regulations and promotion. While SMEs are being mentioned in some of our socio-economic strategies and policy documents, measures are not sufficiently specified and prioritized for us to be able to speak of any coherent SMEs policy or approach. The SMEs sector development program seeks to improve this situation by inviting all concerned stakeholders to draft Pakistan's future SME policy.

SMEs cover every sector and type of industry and Auto Industry as a driver industry; forms 13% of the world engineering trade which at the last count was 60% of the total trade. Are examples of China, Malaysia, Indonesia, Korea, Thailand, Japan, India and USA, etc not sufficient to clinch the argument, if any, that this industry can be the engine of growth of our economy, the fruits of which easily percolate to the lowest strata as it is one of the largest employer in the world. In India it provides employment to 1% of the total population; in Malaysia the industry provided employment to 4.1% of the employed in 2002 - must be higher now, in Germany every 7th person is employed in it. Automotive industry may be called as mother of industries or industry of industries.

Auto industry in Pakistan has been taken as case study in support of the arguments. Auto industry provides direct and indirect employment. The total employments

including OEMs & vendors are over 500,000 persons including technicians, engineers and management staff. Auto parts industry in Pakistan is contributing over Rs 8 billion annually to the national exchequer. Total contribution by the auto industry in revenue is over Rs. 60 billion. It saves foreign exchange to the range of about US$ 3,304 million by import substitution. Pakistan auto industry has over a dozen manufacturers in cars, motorcycles, buses, trucks and tractors and has 1600 vendors in informal sector. About 500 vendors operate in formal and organized sector. The contribution of this industry in our GDP is over Rs. 200 billion. Pakistan's existing manufacturing capacity is short by 30,000 – 40,000 vehicles per year and the demand is increasing. Thus Auto Industry in Pakistan has the great potential to generate local investment and opportunities in promotion of vendor industry, and can expand its operation to contribute in attracting foreign direct investment, eradicating poverty and unemployment and in the development of the economy of the country.

The auto vendor industry is a large sector of our economy. Auto venders have invested over Rs 8 billion during fiscal year 2004 –2005 and has thus created new job avenues. The total investment till the fiscal year 2004-05 stood at Rs80 billion in this sector , while over 160,000 persons were involved directly in formal sector in the auto vendor industry. About 1600 vendors are operating in informal secor and employ over 340,000 people. This industry has the potential to create more jobs and attract investment in the coming years as demand and production in the auto sector are escalating. The vehicle industry demonstrated a very impressive growth rate of 46.7 percent during the past fiscal year The local production of after market vehicle parts and accessories is estimated at US$850 million.

Volume is important for every industry, but more so for the automotive, as model changes happen every few years, as well as technological obsolescence hounds the investment in fixed assets. Lack of volume not only inhibits efficient manufacturing but also affects the quality. The policies and strategy should create an environment for volume production and an indigenous capability for innovation and investment, which will create exportability. Without volume, investment in equipment, technology and in human recourse is not profitable. This economy of scale will only come about when we start making 250,000 to 300,000 cars, and then only a quantum jump in exports will happen. If the choice is for trade, then the losers will be the vendors (the real auto industry), the common people of Pakistan who will be denied jobs and, the government because of the loss to the exchequer; the winners will be a paltry few traders and the rich who yearn for top of the line vehicles.

STATEMENT OF THE PROBLEM

SMEs cover a wide spectrum of industries and play an important role in both developed and developing economies. Pakistan is no exception. Pakistan's economy is an economy of SMEs. The significant role of SME is clearly indicated by research and statistics. Enterprises employing up to 99 persons constitute about 90 percent of all private enterprises in the industrial sector and SMEs employ some 78 percent of non-agriculture labour force. They contribute over 30 percent to GDP,PKR 140 billion to exports, and 25 percent of manufacturing export earnings besides sharing 35 percent in manufacturing value added. However, the review of literature reveals that no major research study has been undertaken to examine exactly how Pakistan's SMEs particularly our Auto Industry has performed to survive, grow and succeed, or more specifically, how they make their operational, technological, marketing, financial, environmental and organizational decisions that might affect their performance and what is the role of SMEs in supplementing large industries. SMEs importance and contribution in the economic activity suggests that there should be proper guidelines and SMEs policy in our industrial development plans and documents.

In view of above, this research/project addresses the following aspects:

a. The role and significance of SMEs in world's leading economies.

.

b. The organizational, marketing, operational, financial, environmental and technological factors within the SMEs in Pakistan.

c. The strengths, weaknesses, opportunities and threats facing SMEs in Pakistan.

d. SME, linkage with large industries by networking, industrial districts, clusters, subcontracting and outsourcing.

e. The performance of SMEs in the auto sector of Pakistan.

SIGNIFICANCE OF THE STUDY

It is intended that the study will extend the body of understanding on SMEs activities and also add new knowledge on SMEs performance in Pakistan's socio cultural environment. This study contributes to what is currently a very limited amount of empirical research on SMEs particularly SMEs in auto industry in Pakistan. Moreover, the findings of this study may offer a useful potential orientation of the importance of organizational, marketing, operational, financial, environmental and technological factors to SMEs performance in Pakistan.

Scope and Limitations (Study Questions & Objectives)

To analyze the performance of SMEs in the Pakistan's industrial sector, the following research questions were developed:

a. What are the characteristics of SMEs?

b. How is SMEs performance evaluated?

c. What is the importance of organizational, operational, technological, environmental, financial and marketing factors to SMEs performance?

d. What are the anticipated strengths, weaknesses, opportunities and threats facing SMEs in Pakistan's industrial sector?

e. What are the actual strengths, weaknesses, opportunities and threats facing SMEs in the Pakistan's industrial sector?

f. How SMEs are linked with large industries and supplement them.

g. What is the significance of SMEs in Pakistan Auto Industry?

h. What lessons can be learned?

In the light of the above questions the scope and objectives of the present study are:

a. To identify how SMEs evaluate their performance in the Pakistan's industrial sector.

b. To understand the role of organizational, financial, operational and marketing factors in determining SMEs performance.

c. To examine the strengths, weaknesses, opportunities and threats faced by SMEs in the Pakistan's industrial sector.

d. To identify the similarities and dissimilarities of the nature of SMEs performance in Pakistan compared to other contexts.

e. To recommend the appropriate measures to enhance the role and improve the competitiveness of the SMEs particularly SMEs in Auto sector in the face of local and international challenges.

DEFINITIONS AND ABBREVIATIONS

Definitions

SME

The definitions of "small" and "medium" sized enterprises differ from one country to another. SMEs have been defined against various criteria such as the number of workers employed, the volume of output or sales, the value of assets employed, and the use of energy. Other definitions are based on whether the owner of the enterprise works alongside the workers, the degree of sophistication in management, and whether or not an enterprise lies in the "formal" sector. For example, the OECD defines establishments with up to 19 employees as "very small"; with up to 99 as "small"; from 100 to 499 as "medium"; and with over 500 as "large". However, many establishments in some developing countries with 100 to 499 employees, the OECD definition for "medium", are regarded as relatively large firms.

Definition of SMEs according to the number of workers employed in some countries is:

Country	Criterion	Size
Indonesia BPS	Employment	SMEs < 100
MOIT	Assets	SMEs < Rp 5 billion (US$ 0.7 million)
Bank Indonesia	Assets	SMEs < Rp 10 billion (US$ 1.4 million)
MOCSME	Sales	SMEs < Rp 50 billion (US$ 7 million)
Japan	Employment	SMEs < 300
	Invested Capital	SMEs < ¥ 300 million (US$ 3 million)
Korea	Employment	SMEs < 300
Malaysia	Invested Capital	SMEs < MR 2.5 million (US$ 0.7 million)
Philippines	Employment	SMEs < 200
	Assets	SMEs < P 60 million (US$ 1.5 million)

Singapore	Assets	SMEs < S$ 15 million (US$ 9million)
Taiwan	Employment	SMEs < 200
	Invested Capital	SMEs < NT$ 60 million (US$ 2 million)
Thailand		
Bank of Thailand	Employment	SMEs < 300
MOI	Employment	SMEs < 200
MOI	Assets	SMEs < 100 million baht (US$ 2.7 million)
Canada	Employment	SMEs < 500
	Sales	SMEs < CDN$ 20 million (US$ 14 million)
USA	Employment	SMEs < 500
EU	Employment	SME < 250
	Assets	Euro < 50 million
Bangladesh	Employment	SMEs <200
Syria	Employment	SMEs <200
Pakistan	Employment	S Es <39 MEs <99 LEs > 99
	Assets	SEs < Rs. 20 million. MEs < Rs. 40 million. LEs > RS 40 million

The above data shows that most of the countries adopt the number of workers as their main criterion, which distinguishes SMEs from LEs, and they often use the size of 200 to 500 employees as a cutoff between SMEs and LEs. For instance, Japan, South Korea and Thailand regard manufacturing firms as SMEs if their number of employees is less than 300 workers.

Subcontracting: Subcontracting is buying supplies from another firm and working closely on detailed specifications for a complex product.

Licensing. Licensing includes permission to manufacture a product under license, to distribute a product and to include product in another design.

Joint venture. Joint venture involves the creation of a third firm to manufacture or market a product, which had been developed by the entrepreneurial firm. The partners usually shared equity.

Strategic alliance. Strategic alliance is essentially a joint venture without the creation of a third firm and no equity is involved.

Consortium. Consortium is usually a group of firms joining together in a buying group to purchase components or equipment, which they mutually share.

Cluster. A cluster is a group of firms concentrated in one geographic location and working in the same sector.

Networking. A network is a collection of firms working in cooperation, though not necessarily in the same place.

Backward Linkages with Suppliers. This refers to the extent to which components, materials, and services are sourced from within the host economy.

Forward Linkages with Customers. These can include marketing outlets, which may be outsourced.

Spillover Effects. These include demonstration effects, as inward investors demonstrate new and better ways of doing things to local firms.

Network. A network is a collection of firms working in cooperation, though not necessarily in the same place

ABBREVIATIONS

SMEs.	Small and Medium Enterprises
LEs.	Large Enterprises.
SEs.	Small Enterprises.
MEs.	Medium Enterprises.
SOEs	State Owned Enterprises.
SMEDA.	Small and Medium Enterprises Development Authority.
PAAPAM.	Pakistan Association of Automotive Parts and Accessories Manufacturers.
PASPIDA.	Pakistan Automobile Spare Parts Importers and Dealer Association.
MOIT	Ministry of Industry and Trade.
BPS	Statistics of Indonesia.
MOCSME	State Ministry of Cooperatives and Small Medium Enterprises.
EEA.	European Economic Area.
CIT.	Countries in Transition.
OECD.	Organization of Economic cooperation and Development.
TEVTA	Technical Training and Vocational Authority.
WEBCOP	Workers Employers Bilateral Council of Pakistan
LDC.	Least developed Countries
WTO.	World Trade Organization.
MFI.	Micro Financial Institutions.
BOI	Board of Investment
EPB	Export Promotion Bureau

CBR	Central Board of Revenue
OEM	Original Equipment Manufacturer
CKD	Completely Knocked down
CBU	Completely Built Unit
CVT	Capital Value Tax
JIS	Japan Industrial Standards
SAE	Society of Automotive Engineers, United States.
ISO	International Standards Organization

CHAPTER-II

RESEARCH DESIGN

This is an empirical, descriptive and analytical study. The nature of the topic implies that it cannot be carried out in an artificial environment. For reaching on the correct findings and deducing the fruitful conclusion need both primary and secondary data. Unstructured interviews and a questionnaire were used to collect the primary data. Published statistics on SMEs was sought from SMEDA, PAAPAM and PASPIDA. A five-point Liker rating scale was used for all answering categories for accurate reflection of the underlying variables and factors, because it provide sufficient alternatives along the continuum for respondents to express their opinion. In the current study, the basic criterion for the choice of the respondents was their ability to provide the necessary information. Consequently, the target respondents were ranged across several management levels from assistant managers to managers and directors.

A number of steps were taken in the construction of the questionnaire to ensure that the questions appeared unambiguous to respondents and to give accurate responses. These include the adoption of questions from successful studies previously conducted in related field of study and the conducting of a pilot study. Moreover, a reliability analysis was employed to ensure the accuracy and reliability of the items used to measure the factors.

Respondents of the Study.

SMEs have shown their presence in nearly all sectors in the Pakistan's economy. Some of the SMEs are producing directly for customer market while others are serving as suppliers to bigger industries. For the purpose of this research, the surveyed population consists of SMEs in the Pakistan's Auto Industry. As Auto industry is the mother of all engineering industries. Therefore, it has been selected as case study for this paper and has been covered in detail. Following managers and director level staff of following organizations are our respondents for this study.

a. **SMEDA**. SMEDA was established in October 1998 to take on the challenge of developing small and medium enterprises (SMEs) in Pakistan. SMEDA is relatively a new organization with a futuristic structure and focus on providing business development services to small and medium enterprises. SMEDA is not only an SMEs policy-advisory body for the government of Pakistan but also acts as a one-stop-shop for its SMEs clients. Unstructured Interview of Mr. Babur Shabaz, Manager SMEDA Karachi was conducted for information and data of Pakistan's SMEs.

b. **PAAPAM**. The Association of Pakistan Automotive Parts and Accessories Manufacturers (PAAPAM) was established in 1988. The main purpose of this association is to safeguard auto vendors industry and provide financial and technical assistance to its members. It has 250 registered members. Unstructured Interview of Mr. Mehdi Ali Rizvi, Chairman PAAPAM, was conducted for data and information of auto parts being manufactured in Pakistan.

b. **PASPIDA**. It is the association of Auto Spare Parts Importers and Dealers. It was established in 1947as Motor Traders Association. In 1948 it was renamed as Karachi Motor Parts Dealers Association. In 1954, the association extended the sphere of its activities to the whole of Pakistan and was named as Pakistan Motor Traders Association. In 1958, the then Government introduced a scheme to recognize trade bodies .So in pursuance of the said scheme for recognition of Associations of Trade & Industry, the Pakistan Automobile Spare Parts Importers & Dealers Association was incorporated on all Pakistan basis. Unstructured interview of Mr. S. M. Ayub, Secretary PASPIDA, was conducted for information on imports of auto parts.

c. **SME Bank**. SME bank Ltd was established in 2002 to exclusively cater to the needs of the SMEs sector. It was created to address the needs of this niche market with specialized financial products and services that will help stimulate SME development and pro poor growth in the country

Project/ Research Instrument and Phases

In pursuit of the foregoing objectives the study was completed in phases by using following research tools;

Phase One.

a. Literature Review. Its aim is to outline the main characteristics of the new business environment facing SMEs.

b. Visits of SMEs (Auto Vendors in Karachi)

c. Visits of SMEDA,PAAPAM and PASPIDA.

d. Generation of Questionnaire for the Research.

e. Pilot Testing of Questionnaire.

f. Generation of Industry Data base particularly for SMEs in Auto Industry.

g. Collecting of information on the role of organizational, financial, environmental, operational and marketing factors in determining SMEs performance.

Phase Two

a. The Construction of the Questionnaire.

b. Study of questions and objectives, and determination of study variables.

c. Determination of population for the current study.

d. Development of the questionnaire.

e. Results of undertaking a pilot study.

Phase Three:

In this phase data collection was done by distributing questionnaires and by conducting interviews of the managers and director level management staff in SMEDA, PAAPAM and PASPIDA. Secondary data was collected through literature review and relevant Internet sites. .

Phase Four.

Data analysis was done in this phase by using statistical tools.

Phase Five.

In this phase a detailed report was prepared. The report's aim is to give details of the main findings of the study, to show main implications of the study, to present the empirical contributions to SMEs managers and policy makers in the Pakistan's industrial sector, to state limitations of the study and finally to suggest a number of proposals as a springboard for further research.

Project Schedule

The current study was completed within four months. The following schedule was followed:

Project phases	**Projected time in weeks**
Phase one:	
Literature Review	Two Weeks
Phase Two:	
The construction of the questionnaire	Two weeks
Phase Three:	
Data collection.	Six weeks.
Phase Four:	
Data analysis.	Two weeks.
Phase Five:	
Report writing.	Three weeks.

BENEFICIARIES

Many people, firms and institutions are entitled to take advantage of the results of the current study. These are:

a. Policy makers in the SMEs.

b. Pakistan's Chamber of Commerce & Industry.

c. Ministry of Trade & Industry.

d. Trade & Industry Associations.

e. SME Bank for Industrial Development.

f. Any other agencies, which have direct/indirect interest in the development of SMEs in Pakistan.

What Lessons Can be Learned?

This section is devoted to present the potential key lessons to be learned from the results of the current study such as:

a. The importance of creating a database on the SMEs.

b. The need for close relationships and collaboration between academics and the SMEs, the so-called Industry-University relationship.

c. The need for clear articulation of the benefits of the SMEs.

d. The importance of aligning the operational strategies i.e. marketing, finance and production strategies directly with the business strategy of the firm.

e. The importance of training in SMEs management, especially for top management.

f. The importance of post evaluation and learning from experience.

g. The need for providing more opportunities for universities' students to choose entrepreneurship as an alternative career opportunity.

h. The need for improving the general business climate, which can simulate and encourage development of SMEs in the state of Pakistan.

Analytical Tools and Treatment of Data.

Extensive quantitative methods to analyze questionnaire data for example, Frequency Analysis, Mean Value and Standard Deviation were used to present SMEs profile and characteristics. Analysis of variance was done to find out significant differences that exist among SMEs concerning the impact of marketing, operational, financial, technological and organizational factors on SMEs performance in the Pakistan's industrial sector. Tables have been be used to represent data.

CHAPTER- III

LITERATURE REVIEW

SMEs Importance in World's Leading Economies

USA Economy

USA economy comprised of wide range of enterprises ranging from sole proprietorship to world's largest corporations. Ninety nine percent of all independent enterprises in the country have less than 500 employees. SMEs account 52 % of the USA work force. Thirty nine percent high tech workers work in small enterprises.

In 2000 Medium size enterprises in USA had 57.1 million workers. Forty one percent workers worked in enterprises having less than 100 employees. Large enterprises had 56.9 million workers. In 1999/2000 SME produced 2.5 million jobs in USA. The particular strength of small businesses is their ability to respond to changing economic conditions.

E U Countries

In the countries of the European Union, government policies are focused on supporting SMEs and stimulating their competitiveness and growth. Almost all (99.9 per cent) of the 15.7 million businesses in the private non-primary sector of the European Union are SMEs. They provide 70 per cent of the jobs and make a significant contribution to the prosperity of Western Europe. Throughout Europe the SME sector has led to revival and stimulated new entrepreneurship.

Ninety three percent of all European enterprises have less than 10 employees. There are 20.5 million enterprises in the European Economic Area (EEA) and Switzerland, providing employment for 122 million people. Some 93 percent of these enterprises are micro (0-9 employees), Six percent are small (10-49), less than 1 percent are medium-sized (50-249) and only 0.2 percent are large enterprises (250+). Of all these enterprises nearly 20 million are established within the European Union. Two thirds of all jobs are in SMEs, so one third of all jobs is provided by large enterprises. Within SMEs, total employment is split up roughly equally between micro enterprises (employing less than 10 employees), and small and medium-sized enterprises. On average, an enterprise in Europe - even including all very large enterprises- provides employment to 6 people; the average for SMEs only is 4 people.

OECD Countries

The Organization for Economic Co-operation and Development (OECD) has 30 member countries. In this group, SMEs represent over 95% of enterprises in most countries and generate over half of private sector employment. In New Zealand, for example, nine out of ten businesses employ less than ten people. Information Technology is of particular importance, with the number of employees in this area in 2003 more than doubling that of 1997.

Most OECD governments promote entrepreneurship and develop SMEs with a myriad of policies and programmes. As in the EU, this is to combat SME difficulties such as financing, technology and innovation, e-commerce, management and internationalisation. For example, in Korea measures include tax breaks and reduced interest loans for starting new businesses in rural areas.

Transition Economies

The majority of the countries in transition (CITs) have acknowledged that SMEs are crucial for industrial restructuring and have formulated national SME policies, programmes and enterprise development policies.

The Czech Republic, Hungary, Poland, Slovakia and Slovenia have recognized that the development of SMEs is a crucial element of industrial restructuring and an essential part of the privatization process and economic reform.

In addition to those countries, Romania and the Baltic States share the same commitment despite having only begun to implement their policies rather recently. In September 1995 a SMEs Conference was held in Riga on Entrepreneurship in Latvia and International Economic Collaboration in the Baltic Region, which gave an input for the elaboration of national SME-policies and support programmes in this region. On 5-7 June 1996, a National Forum of Private SMEs in Romania was held in Bucharest to analyze the political, economic, social, institutional and legal framework of SMEs in the country and elaborate recommendations towards the 21st Century in these issues.

Asian Countries

Throughout Asia today, there is a new focus on the role played by small and medium enterprises (SMEs) in the broader process of economic development. Once considered a relatively unimportant aspect of the economy, government policy makers and international donors increasingly view SMEs alike as a critical sector for generating economic growth. Given this increasingly important role, a proper understanding of the SME sector, its value and its needs, has likewise gained urgency for planning policy and programme approaches.

In Asia, recognition of the central role that SMEs play in a healthy and dynamic economy has emerged since the financial crisis in the late 1990s. Large businesses, including conglomerates and state-owned enterprises(SOEs) were seen for decades as the engine of growth and, as a result, governments provided protected domestic markets, special access to scarce capital, and other non-market advantages to ensure that flagship firms and industries thrived and pulled the rest of the economy along with them. In this setting, SMEs were seen as part of the traditional economy, with low levels of investment and labor productivity, giving policy makers little reason to worry about how the advantages provided to large firms might actually serve to the disadvantage every body else.

The financial crisis revealed the systemic weakness of this preoccupation with large and politically preferred firms. The intimate relation between large businesses and domestic financial institutions made it possible for significant lending to take place, based

not on financial principles, rather on the internal needs of these large firms. The acquiescence if not active support, of government regulators in the channeling of the capital to these privileged firms, despite prudential regulations that were often on the books, helped set the stage for the financial sector meltdown that ensued.

Today, in many Asian countries, the inflexible, debt-ridden giants continue to struggle to right themselves, and economies that depended on these firms and industries for growth now find themselves stagnating increasingly, the cost of propping up unprofitable state-owned enterprises or bailing out deeply-indebted conglomerates is generating too much red ink, either in the government budget or, more often, on the books of state-owned banks, to remain a credible development strategy.

With the focus on selected large firms and strategic industries no longer in favour, a new orthodoxy of dynamic development in Asia has emerged that places far greater emphasis on the role of SMEs in creating jobs and raising incomes. The new model of economic development has not been restricted to crisis-affected countries, but has gained currency among multilateral development banks and bilateral donors and, as a result, has spread throughout Asia and much of the rest of the developing world. Unfortunately, rather than focusing development efforts on leveling the play field for all firms, the new approach reproduces many of the weaknesses that plagued industrial policy by seeking direct growth by providing special advantages to a preferred category of firms.

SMEs account for 99.3 percent of the total number of enterprises in South Korea with 39.7 percent of the total value added production and 70 percent of the employment. SMEs play an important role in the expansion of manufactured export in the Thailand's economy since SMEs comprise 98.3% of the total number of establishments with 118,648 enterprises. There are more than 700,000 SMEs in Taiwan, comprising over 98 percent of the total number of enterprises. There are 5,072,922 SMEs in Japan, a 99.4% share of the total number of firms with 60.1 percent of the employment and 55.7% of the total value added. In China, SMEs employ more than 42 percent of the total labour force and generate 87 percent of the total rural output value. About 90 percent of the total establishments are classified to be SMEs in the Philippines. In Pakistan, over 98 percent of the total numbers of establishments are SMEs and are backbone of our economy.

SME Role in Turkey Economy

Industrialization process has always played an effective role in the development of Turkish Economy. The key role which the small and medium scale industries plays in the economic life of Turkey has been appreciated very well and promoted not only because of their number and variety but also because of their:

a. Involvement in every aspect of the economy.

b. Contribution to industrialization and regional development.

c. Effect on unemployment problems.

d. Integration support and complement of large industries.

e. Flexibility in manufacturing fields.

f. Respond to market forces.

g. Easy adaptation to new technologies.

h. Reaction readily to economic fluctuations.

h. Success in mobilization of untapped resources of capital and skills.

j. Stability in political, economical and social structures.

It is assumed that, by supporting Small and Medium Scale Industries where capital, manpower and return ratios are low as far as the economy is concerned will create more employment and thus resources will be utilized more efficiently.

Asia Pacific Countries

Small and medium enterprises (SMEs) are major sources of employment generation and economic development in Asia Pacific. They dominate the non-agricultural sector in number of enterprises and in numbers employed. Promotion of such enterprises, therefore, is generally regarded as part of an employment and intensive industrialization strategy.

SMEs in Asia Pacific countries account for between 40 and 80 per cent of non-agricultural employment. While 40 to 50 per cent of the non-agricultural workforce is working in SMEs in such countries as Australia, Indonesia, Malaysia, the Philippines and Singapore, the figure is as high as 74 per cent in Japan . However, the contribution of SMEs to non-agricultural employment is typically greater than their contribution to non-agricultural GDP (according to available statistics, SMEs contribute only 30 to 60 per cent of the non-agricultural GDP). This suggests that there is great potential for further improvements in productivity and incomes in these enterprises.

The scope and scale of SMEs and their relative intensity varies considerably among countries and regions. Japan has the highest number of SMEs per 1,000 people, whereas Indonesia and Thailand have the lowest. It is abundantly clear that the industrialized economies have higher concentrations of SMEs, enabling them to take advantage of the productivity and flexibility in manufacturing associated with small enterprises.

SMEs Contribution in Japan's economy

SMEs play a major role in every sector of the Japanese economy. Indeed, no one can give a picture of the economic development in Japan without stressing the role of SMEs. Their number had been continually increasing since the Second World War until the recession of the nineties. Between 1963 and 1986 the number almost doubled, from 3.9million to 6.4 million. Thereafter there has been some decline in numbers, but their share of total enterprises has remained at 99%. One is undeniably right to argue that no other industrialized nation has experienced such a continued and considerable growth of SMEs especially in the late 20th century, as did Japan. Furthermore the late 20th century was the period of fastest growth of SMEs in Japan in particular and the world in general. Nonetheless, the significance contribution of SMEs in Japan has always been

understated. One of the main reasons for this is that the Japanese industrial characteristics which have attracted the attention of many researchers and business managers has been the large firm sector which provide a leading role in the entire industrial system. Perhaps the best indicator of the important role of SMEs in Japan is the production of exportable goods. SMEs played an essential role for earning reserves especially at an early stage of Japan's economic development. Before 1950, the goods produced by large enterprises were not very competitive in foreign markets and they were mainly marketed in the domestic markets as substitutes for imported goods. The goods exported at that time were mainly produced by SMEs and they included textile products, apparel, toys, electrical machines, optical equipment, bicycles and other small machines. The export of good produced by large enterprises started to expand in the 1950s,but their export value was still smaller than that of SMEs. In the later half of the 1960s, the goods produced by large enterprises became competitive in the foreign markets and their exports started to expand rapidly. However, the exported goods produced by large enterprises contain many parts produced by SMEs. For instance, in 1980 the share value originated from SMEs in those exported goods was 24.3 percent in the electrical machinery industry, 23.8 percent in the precision machine industry, 23.1 percent in the general machine industry and 20.4 percent in the transportation machine industry. The share of value originated from SMEs in the exports of large enterprises in the manufacturing sector as a whole was 19.1 percent in that year. At the same time, the exported goods produced by SMEs contain materials produced by large enterprises, so it can be said that SMEs also produce an export conduit for large companies. Evidence shows that the export value of SMEs was larger than that of large enterprises before 1963. Even though the SMEs' export was not expanding as fast as the large enterprise's export after 1964, it was still growing steadily in terms of real value. However, seeing SMEs and large firms in isolation is the overlook the symbiotic relationship between the two sectors, which is so characteristics of the Japanese economy. Although many Japanese SMEs have operated independently, to large extent the growth and development of the SME sector has been directly the result of expansion and development of large firms.

SMEs in Malaysia

SMEs in Malaysia account for a large proportion of the total enterprises in various sectors. In the manufacturing sector, for instance, SMEs comprise 93.8 percent of all establishments. Moreover, of the total number of SMEs, small enterprises comprise 76.0 percent, while medium companies account for 17.8 percent of all manufacturing establishments. Meanwhile, the Eight Malaysia Plan (2001-2005) estimated that 90 percent of all manufacturing establishments are SMEs, employing some 868,000 workers or 38.9 percent of the total 1418. Small enterprises account for 3.9 percent and 11.4 percent, while medium enterprises contribute 23.4 percent and 27.5 percent in manufacturing output and employment respectively. Overall, 85 percent of the small establishments generate less than 5 million Malaysian Ringgits (RM 5 m) in output annually and employ less than 25 workers. SMEs in the manufacturing sector are found mainly in textiles and apparel, food, wood-based and fabricated metal products sectors, while SMEs in wood-based products provide the largest employment share followed by food, textiles and apparel, fabricated metal products. The significant role of SMEs in all sectors in the economy is demonstrated by their output which was worth about RM 4.3 billion or about 20 percent of the Malaysian Gross Domestic Product (GDP) in 1990 and was projected to be around 50 percent or RM 120 billion by the year 2020. During the

Sixth Malaysia Plan (1991-1995), the government expected SMEs to have invested around RM 80 billion, increasing to RM 126 billion under the seventh Malaysia Plan (1996-2000) . Meanwhile, during the Eight Malaysia Plan (2001-2005), the government provided RM131.9 million as soft loans to the State Economic Development Corporations to develop SME Industrial Parks, and combined all the allocations in the Plan totaling to RM 1,091.8 million. Twenty eight percent of SMEs in the manufacturing sector are in the electrical and electronics sub-sector, while non-metallic products and wood-based products are also quite important.

SMEs Role and Significance in Economic Development and Transformation

SMEs are engine of economic development. Due to their private ownership, entrepreneurial spirit, their flexibility and adaptability as well as their potential to react to challenges and changing environments, SMEs contribute to sustainable growth and employment generation in a significant manner. In industrial as well as in developing countries more than 95 percent of all enterprises are of small or medium-size. Small and medium-sized enterprises (SMEs) generate a large part of the national income and employment, disseminate technical know-how and new technologies and innovations, decentralize economic structures and improve efficient use of national resources.

The historical experience of economic development in the developed countries is replete with success stories of the role of SMEs in industrial development, technological innovation and export promotion. Similar examples are indeed also found in developing economies of Africa, Asia, etc. The industrial revolution of 1760 to 1850 is a testimony of the innovative spirit of SMEs, which increasingly challenged in the present century and the century to come, particularly after winds of change and industrial liberalization have swept various economies of the world.

Contrary to the general impression, SMEs are as much an important catalyst in industrialized countries as they are in the developing world.

Besides generating direct employment, SMEs provide important services to medium and large enterprises by providing repair and maintenance services, supplying parts and components, processing semi-finished products and selling manufactured products to consumers, thus contributing to overall employment. Hence, SMEs have played a key role in economic progress in many countries by filling a niche, otherwise uneconomical to large-scale enterprises, and thereby generating employment. Yet, concerns have been raised as to what extent working conditions in SMEs are comparable to those prevailing in larger enterprises. Linkages of SMEs to medium and large enterprises therefore remain an area of interest from the broader perspective of generating quality employment.

In some countries, SMEs have played a dynamic role in economic growth and employment generation, and in other countries they have acted more as a source of employment for those unable to secure employment in public sector or large enterprises. During the past decade, growth in employment generated by SMEs has also varied across countries.

In Australia, small business categories registered net job increases in 1995-96, while the largest category of firms (100 or more employees) experienced job losses. Hong

Kong (China) has witnessed job losses in its overall economy, including small enterprises: the number of SME establishments declined by 6.4 per cent between 1996 and 1998, with net job losses of 0.9 per cent. Thus, although both Australia and Hong Kong (China) can be regarded as developed economies, they have had different experiences.

Many countries in transition, especially in Central-Europe, acknowledged already at an early stage of the economic transition process that SMEs development was a crucial element of industrial restructuring.

In spite of the fact that many transition economies consider the development of SMEs as an important element of the reform process, Governments prefer to deal with the question of privatization rather than small businesses. There is a danger in seeing privatization as an aim of the economic transformation process instead of merely an instrument to make the economy more effective through private initiative and real ownership.

For many experts and economists, SMEs are synonymous with the private sector, and in a figurative sense, with entrepreneurship. As the transition economies move from centrally planned to market economies, it is important for them to remember several issues:

The majority of state-owned enterprises created by the centrally planned economies operated in an artificial economic environment defensively sheltered by simulating the market through multilateral and bilateral state agreements in many cases based on barter trade and artificial financial means; transformation of a state-owned enterprise into a private enterprise does not automatically leads to the creation of entrepreneurship; and entrepreneurship has a dual character. It must be considered as an alloy of science and art. Science requires know-how, clear and pertinent knowledge and can be acquired while entrepreneurship is an art. Parallel with ownership reform and privatization, the number of SMEs is increasing. The strategic importance of SMEs is today acknowledged around the world for the following reasons:

a. Small and medium-sized enterprises are contributing to employment growth at a higher rate than larger firms. In the EU economy about 99.9 per cent of the enterprises are SMEs of which 93 per cent are micro enterprises. In 1992, there were 15.7 million SMEs in the private non-primary (i.e. non-farming) sector of the Community.

b. The private sector and in particular SMEs form the backbone of a market economy and for the transition and developing economies in the long-term might provide most of the employment as is the case in the EU countries.

c. World Bank sector policy paper shows that their labour intensity is from 4-10 times higher for small enterprises.

d. Support for SMEs will help the restructuring of large enterprises by streamlining manufacturing complexes as units with no direct relation to the primary activity are sold off separately. And through this process the efficiency of the remaining enterprise might be increased as well.

e. They curb the monopoly of the large enterprises and offer them complementary services and absorb the fluctuation of a modern economy;

f. Through inter-enterprise cooperation, they raise the level of skills with their flexible and innovative nature. Thus SMEs can generate important benefits in terms of creating a skilled industrial base and industries, and developing a well-prepared service sector capable of contributing to GDP trough higher value-added.

g. A characteristic of small industrial enterprises is that they produce predominantly for the domestic market, drawing in general on national resources.

h. The structural shift from the former large state-owned enterprises to smaller and private SMEs will increase the number of owners, a group that represents greater responsibility and commitment than in the former centrally planned economies.

j. An increased number of SMEs will bring more flexibility to society and the economy and might facilitate technological innovation, as well as provide significant opportunities for the development of new ideas and skills.

k. SMEs use and develop predominantly domestic technologies and skills.

New business development is a key factor for the success of regional re-conversion where conventional heavy industries will have to be phased out or be reconstructed especially in the field of metallurgy, coal mining, heavy military equipment, etc.

SMEs Role In Employment

Small and medium-sized enterprises are major contributors in private sector employment in the industrialized countries. According to the OECD (1994), SME employment in member countries accounts for between 57 per cent in United States and 81 per cent in Italy of employment in industry and market services combined. The share of small enterprises alone ranges from 44 per cent in Canada to 71 per cent in Italy. A detailed breakdown of employment is shown in Table 1 .

The twelve countries of the EU had 15.8 million non-agricultural private enterprises in 1990. Of these, 14.7 million were micro-enterprises, almost one million were small, and approximately 70,000 had between 100 and 500 employees and only 13,000 employed more than 500. Micro-enterprises accounted for 31.8 per cent of total employment in private enterprises outside the agricultural sector, small enterprises for 24.9 per cent and medium-scale enterprises for 15.1 per cent. Distribution by economic sector is shown in Table 2.

Small and medium-sized enterprises remain important players in manufacturing activities, even in countries with advanced industrial sectors. Table 3 is relevant for details of data of France, Germany and Italy.

Employment In SMEs In APEC Countries

A survey conducted in 17 economies in the Asia/Pacific region by the Asian/Pacific Economic Cooperation (APEC) forum indicated that the percentage of the workforce in

SMEs varied from 32 per cent in the Philippines to 84 per cent in China (Table 4). The survey also found wide differences in the definition of SMEs using as indicators the number of employees, amount of invested capital, total assets and turnover and production capacity. Many of these figures exclude micro-enterprises and rural-based companies for which statistics were not available. In Latin America, it is estimated that SMEs cover 36 per cent in Colombia and 79 per cent in Brazil of non-agricultural employment. In Africa 60 percent of the labour force outside agriculture is employed in micro-enterprises and 21 per cent in the modern sector, including private enterprises and the public sector, with the remaining 18 per cent being unemployed.

Employment In SMEs in Transition Economies

The transition to market economy in Eastern Europe and the countries of the former USSR has encouraged the establishment of new private enterprises, with small-scale operations. Large state firms are breaking up into smaller companies due to privatization. In Poland, official statistics reported the existence of 2.1 million enterprises in 1995, of which 92 per cent employ five or fewer workers; six per cent employ six to 50 and only two per cent employ over 50. SMEs currently employ about 60 per cent of the workforce.

Trends In Developing Countries

A study comprise of five developing countries by ILO which were selected upon their direct request and for reasons relating to past ILO technical cooperation activities which were undertaken in chemical safety and the prevention of major industrial accidents. The countries selected had different patterns of employment and varied in sectors of economic activities. Whilst a large number of workers are engaged in agricultural or construction activities, the information on occupational safety and health in these sectors were sketchy. The legislation in the different countries did not classify the industry into small, medium or large scale. However, in some countries, an enterprise must have ten or more workers to be classified as a factory. The categorization of the enterprises in each country into small or medium ones was made by the national experts in the light of national legislation and pattern of employment followed by the local industry. Table 5 classifies SMEs according to the number of workers employed.

Whilst 10.5% of the workforce in Pakistan is employed by the manufacturing sector's medium and large-sized enterprises, the bulk of the industrial labour force is employed by the small-scale sector. The economic survey carried out in Pakistan in 1996-97 acknowledged the role of the mall-scale sector. It stated that the small-scale industrial sector plays a pivotal role in the industrial development because it employs less fixed capital investment, generates more employment opportunities, uses indigenous technology and raw materials, and helps reduce urban migration. Its share in GDP is 4.7% and employs about 80 per cent of the industrial labour force. Its share in manufacturing sector export is 30 per cent, whereas contribution to industrial value addition is 27 per cent.

Out of the total estimated population of 135.28 million in Pakistan (1996), approximately 90.04 million are of the working age. Of the country's total labour force estimated at 37.15 million, 35.15 million workers are employed. The labour force participation rate was calculated at 27.46%. As an agro-based economy, agriculture in Pakistan contributes 23.8% to the GDP and employs 16.45 million workers, who constitute

46.8% of the total employed labour force of the country. The data for workforce in different sectors of economy is given in Table 6.

As can be seen from Table 6, mining and manufacturing sectors employ only 3.69 million people. However, Pakistan has a large small-scale sector, which is largely undocumented, and only rudimentary statistics for the employment and its contribution in the economy are available.

As described earlier, only 10.5% of the employed labour force of the country works in the manufacturing sector. However, this figure may be misleading, as a large proportion of the labour force is migratory in nature, working in the factories and construction sites for some time and then returning home in the harvest and sowing seasons. In addition, the role of small-scale sectors is largely unrecognized.

The employment data in major large/medium scale industrial enterprises is given in Table 7. As would be clear from these tables, the bulk of the industrial workforce is employed in textile sector. The other major industries in terms of employment are food, leather and products, ginning of cotton, drugs and pharmaceuticals, iron and steel, industrial chemicals, non-electrical and electrical machinery manufacture of transport equipment, and manufacture of fabricated metal products.

Contrary to the industrialized countries, the small-scale sector in Pakistan is neither capital intensive nor technologically modernized. Except for a few sectors like manufacturing of garments, sports goods, hand-made carpets, surgical goods, leather products, the small-scale sector usually caters to the demands of the local consumption in the areas where such enterprises are located. The consumption of chemicals among the small-scale enterprises is also very unevenly distributed. While the small scale enterprises based in the rural areas are concerned mainly with the fabrication or manufacturing of labour intensive goods like garments, rugs, and handicrafts with very little exposure of the workers to chemicals, the urban based enterprises are usually more technical and skill-oriented, and use machines, tools, electric devices and chemicals in their processes.

In Lebanon, the country's economy is struggling to bounce back from the effects of the civil war, which lasted from 1975 to 1992. The industry was thriving before the civil war. However, by 1985, 58% industrial units were in operation, the remaining 42% were either closed down or destroyed. At present approximately 137,000 workers are employed by over 21,000 enterprises. The majority of these enterprises are small-scale, with 88% employing 10 or fewer workers. The leading manufacturing industries are those dealing with food products and beverages, furniture, fabricated metal products, wearing apparel, wood and wood products, leather and leather products, textile, printing, rubber and plastics. The pattern of employment in different industries is given in Table 8.

The industrialization in Mauritius started after the end of the colonial era in 1970s. The rate of industrial growth has been rapid since the 1980s. The number of registered factories rose from 408 in 1986 to about 4400 in 1996. The country has been striving from a mono crop economy (sugar based) to a diversified one with more emphasis on manufacturing and tourism. Out of the total of 466,100 employed persons from a population of 1,107,324 in 1996, the number of male and female workers was 316,200 and 149,000 respectively. The pattern of employment in different industries is given in Table 9.

The labour force in Syria of 3.3 million amounts to 38 per cent of the population, which in the 1991 census recorded as 12.5 million. Whilst the private SMEs, including the agricultural sector, employ 78 per cent of the labour force, the SMEs in the public sector employs 10 per cent, which brings to 88 the percentage of the labour force employed by SMEs at the national level. Table 10 shows the distribution of SMEs by sector, their number, and the number of workers employed by each sector.

During the study by ILO, specific local conditions were taken into consideration. The data collected was supported by informal contacts with employers, workers and members of the public. The number of SMEs covered are listed in Table 11. Table also shows the total number of workers employed by these SMEs.

It may be noted that in most of the SMEs surveyed, the owners and managers worked alongside the workers.

S M E Issues and Their Role in Pakistan Economy

Current Status of SME In Pakistan.

It is fair to say that our economy is an economy of SME. The significant role of SME is clearly indicated by research and statistics. Enterprises employing up to 99 persons constitute about 90 % of all private enterprises in the industrial sector and SME employ some 78 %of non-agriculture labour force. They contribute over 30 % to GDP,PKR 140 billion to exports, and 25 % of manufacturing export earnings besides sharing 35 % in manufacturing value added. Stability of policy is a necessary condition for achieving and sustaining high levels of economic development. A desirable mix of various other policies can ensure the stability in the economy. In Pakistan, policies in the past have given a general perspective, direction and defining broad parameters of activity within the macroeconomic framework. However, efforts have remained limited focusing on the large enterprises, neglecting SMEs, which are at the heart of our economy. For example, institutions established to facilitate business activity, like Board of Investment (BOI), Export Promotion Bureau (EPB), Central Board of Revenue (CBR), to name a few, have been concentrating their efforts on large scale industry. The adverse influences of legal environment affect all economic agents. The evidence suggests small firms are discriminated against relatively large firms. And while large enterprises and established holding structures possess the necessary economic and human resource potential to cope with and overcome these difficulties, SMEs, due to their size and the resulting peculiarities, are far less capable of adjusting and carrying on successful business. While spared direct statutory or administrative incrimination, SME remain subject to unequal treatment, which distorts the competitive environment for business. The economic significance of this bias is apparent. Such an environment does not cater well to innovative activities which come from newly founded, small firms, and the new job relation potential of the economy is thus constrained while the informal sector tends to grow. Our SMEs suffer from a variety of weaknesses, which have constrained their ability to adjust to the economic liberalization measures introduced by the Government of Pakistan and to take full advantage of rapidly expanding markets of the world. But SMEs importance and contribution in the economic activity suggests that there is a significant potential to enhance their growth through appropriate regulations and promotion. More recently, the importance of SME has been realized, with the Government's efforts focusing on the

hitherto neglected informal sector. The reason behind the increased stress on the SME sector is that SME promote entrepreneurial culture, create a wider base for employment generation and are a primary vehicle for poverty eradication.

Government Socio-economic Strategies and SME

SME are a distinct pillar of the economy that needs to be given due attention. It requires specific policy and regulatory space to turn SME into an effective tool for driving the economy and increasingly contribute to economic growth and employment. The Government of Pakistan has developed a number of strategies for the sake of economic development. These are:

a. Poverty Reduction Strategy.
b. Micro Finance Sector Development Program.
c. SME Sector Development Program.
d. Education Sector Reforms 2001-05.
e. Reform of financial sector
f. Reforms in Tax Administration

While SMEs are being mentioned in some of these important socioeconomic strategies and policy documents, including even very specific measures for their promotion, these measures are not sufficiently specified and prioritized for us to be able to speak of any coherent SMEs policy or approach. The SMEs Sector Development Program seeks to improve this situation by inviting all concerned stakeholders to draft Pakistan's future SMEs policy. Although SMEs policy is a sector-specific policy, it should be noted that the task of formulation is not a simple exercise. SMEs are a cornerstone of our economy. Many changes in existing legislation may have direct or indirect effects on SME, e.g. in labour law, financial law, export regulations, banking system regulations, tax regulation. SME promotion therefore comes close to a crosscutting issue. Furthermore, the environment for SME is constantly changing, in particular with an increased exposure to world markets due to the opening up of the economy. Therefore, SMEs policy within a socioeconomic development strategy cannot be a one-off exercise. Only a process of regular review linked with predictable behavior by all stakeholders will ensure successful outcomes in the long run.

Coordination and Institutional Support

The role of government as a facilitator of business and its interaction with business support institutions is imperative for the establishment of a mutually beneficial relationship for the growth of the sector. SME promotion is an important issue for many government departments and central offices. For example, the Ministry of Labour plays an important role in shaping the labour market policy of the state. Similarly, in order to gather information on the health of the SME population the role of Federal Bureau of Statistics, the Ministry of Finance, and planning division is pivotal. Other ministries and divisions such as Ministry of Finance, Ministry of Commerce, Planning Division, Ministry of Food, Agriculture and Live Stock, Ministry of Environment, Ministry of Local Government and Rural Development, and the Ministry of Science& Technology also influence the situation of our SME. Provincial and local governments also take their share in responsibility. However, there is an existing lack of coordination and regular information exchange mechanism among institutions, which constrain their collective ability to deliver in the SME

development process. As result of the Governments more recent efforts, two institutions Small and Medium Enterprise Development Authority (SMEDA) and SME Bank were created.

The responsibility for facilitating SME policy development now lies with SMEDA which is attached to the Ministry of Industry and Production (MoIP). SMEDA is responsible for creation and coordination of Government policy for the SMEs sector. Parliament, naturally, is responsible for monitoring policy and its implementation. One of the major reasons for the lack of coordination is that SMEDA has not been provided with a formal mechanism to initiate, coordinate, monitor, and evaluate initiatives undertaken for SME development, which fall outside of its own scope of activities. Therefore, cross-departmental and stakeholder consultations, resulting in the preparation of our national SME policy are our key to success. SME Issues Paper, Regular information exchange mechanism and networking needs to be developed amongst our public and private sector institutions. There is a strong need to devise such an information exchange mechanism and redefine the role of institutions, specifying their functions in order to avoid duplication of efforts and allowing the best-possible usage of resources. Under the SME Sector Development Program it is expected that SMEDA prepare Government documents on policy regarding SMEs and drafts relevant laws and regulations

To form a collective view of all stakeholders, the SME Task Force has been established at the MoIP. SMEDA will serve as the secretariat. A network of institutions stimulating the growth of SMEs is being proposed. Institutions in this network cover all stakeholders involved in SMEs promotion: Regional Development Agencies, Business Support Centers, Chambers of Commerce, as well as other organizations which are established as an initiative of local communities, etc.

Issues in SMEs Development in Pakistan

Short And Medium-Term Issues

This section reflects issues where it is felt that we may achieve strong impacts in the short and medium-term, i.e. until 2011. They should therefore become major topics of our deliberation and shape the formulation of our SMEs policy.

Business Environment

The large size of the SME sector limits the ability of Government and business support institutions to achieve complete coverage by support programs. This is a fundamental reality in most countries of the world and it is why policy framework and regulatory measures are of tremendous importance when SMEs promotion is concerned. It is agreed that only appropriate policy tools and regulations than with support programs can achieve much more. Likewise, SMEs development is hampered more by inappropriate regulations than compensated by means of appropriate support programs.

Most of the developed nations therefore have mechanisms in place to revert the biases against small firms. For instance, the United Kingdom introduced the “Think Small First” initiative, which requires all Government organizations to assess the impact of their actions on small business prior to implementation. Furthermore, participation of small business in government procurement is being facilitated as a matter of routine. As the

result of such policies, surprises to small firms are less frequent. It is make sure that businesses potentially affected are consulted and informed of any forthcoming policy shifts so as to avoid negative impacts. They are also allowed an adequate grace period for the adjustment of economic activity and there is no retroactivity of new regulations. Besides this, special attention is paid to minimizing the room for bureaucratic discretion while developing policy rules or procedures. All such mechanisms are missing in present policy or legal environment in Pakistan. The absence of a specialized, uniform legal framework for the development of SMEs hampers SME operations.

Relationships between Government and SMEs

The relationship between Government and SMEs seems to be fundamentally flawed. In many cases this extends also to other large organizations and their interaction with smaller clients as SMEs. Our compulsion of centralized control stems from the fear of the regulator to be misled by the opportunistic profit-seeking entrepreneur. And our administration practice is characterized by rent-seeking bureaucrats who, given the low level of their pay, take advantage of the semi-literate entrepreneur. Of course, we all know there are also many dedicated and honest professionals on both sides. But the fact of the matter remains that there are severe attitude problems in the relationship between the two sides. The only way to break this discouraging situation is to face the problem squarely and seek solutions in a positive spirit and entertain systematic dialogue between the two sides. The present divide is, among others, reflected in a language gap. Part of the concern for local business people is the inadequate business facilitation process in the local language, which includes laws, regulations and business support material available in the English language only.

As a starting point, we propose to consider the increased usage of Urdu in our written documentation, in our official deliberations and communications. SMEs Issues Papers be translated to Urdu and circulated so as to enable a debate with all of Pakistan's interested SME. Eventually, we should expect the SME policy we are going to develop to be published in Urdu as well, and to regularly report about the achievements under this policy in Urdu to the policy's clients, our nation's SME.

A second point is how we may increase the share of SME participating in the provision of goods and services to the public sector, as it is common practice in many countries. A typical SME in Pakistan caters to the domestic private sector. It is noted that fewer than 4% are supplying to the government sector. Some of the issues are related to tough bargaining price (36%) and supplies on credit (34%) and other are related to absence of rules on how to the public sector should increase its procurement from SME.

Further points may possibly emerge from the dialogue between Government, stakeholders, and their SME clients.

Taxation Issues

High tax rates are one of the major reasons for firms to drift into the informal economy. This holds for countries all over the world, including developed countries. These effects are compounded by high compliance costs for small firms to deal with tax laws and other forms of government regulation. This is a specific size-related disadvantage compared to large-scale firms, which have not only the necessary accountants, but also

frequently also in-house tax and legal advisors. Compliance costs have monetary implications (such as paying tax advisor fees or salary payments to personnel dealing with tax issues), time cost implications (in the form of time spent by a taxpayer to handle tax issues), and physiological cost (in terms of anxiety, stress, and apprehensions related to possible mistakes or a possible audit by the tax authorities).

Firms in Pakistan's SMEs sector, encounter an increasingly complex legal, tax and administrative environment, both in starting up and developing their business. According to research by SMEDA, 67% of enterprises termed tax regulations as most problematic. Fifty six% of businesses report a crunch of taxes, while 28% of businesses felt that taxes in the country are too high.

From SME point of view, the present tax structure and administration generally distort incentives and discriminate against small firms who are harassed by the tax authorities. Smaller firms found tax related issues more restrictive than larger firms, 69% of firms, whose size of assets was less than Rs.1 million faced the greatest of tax related problems. Many small firms claim it is not possible for them to maintain books as per law or hire a professional due to cost constraints.

The prevailing system is non-standardized and offers excessive discretion to the tax authorities. There is no consolidation or rationale in current provincial or local tax structure either. Hence, there has been a constant confrontation between tax authorities and the business communities resulting in very slow expansion in tax base. Two sectors; retailers and small to medium sized manufacturers have already propounded the idea of fixed taxation as remedy to this continuous ailment.

Cognizant of the change required to cater to the SME sector in its policies, there have been reforms in the advance stage of implementation of Pakistan’s tax regime. But these reforms are focused on tax administration and management, instead of addressing the aspects that directly affect SME. No incentives are being offered to SMEs to enter the formal economy. There has been no consideration as such for reviewing tax law from an ordinary SME or even micro enterprise perspective.

Labourer’s Issues

Likewise, the intensity of regulations is the second most important reason for firms to drift into the informal economy all over the world. Labour Laws and regulations in Pakistan are considered to be one of the most complicated areas with which any business enterprise deals. The present set of labour laws was the result of checkered initiative of various governments to create a healthy business environment for labour. Consequently, enterprises have to deal with fifty six (56) labour laws with some of them being industry specific. The existing plethora of labour laws has made compliance impossible for the enterprises due to their inherent inconsistencies. Numerous labour inspections under these laws are yet another impediment that retards the growth of SMEs.

The Labour market dynamics have changed considerably over the years, a higher degree of adaptability and flexibility along with Labour market security, including protection against arbitrary loss of employment; reductions in income and unhealthy work practices are essential requirements of new environment. Besides, the condition for compliance of international labour standards under the global economic system is another issue.

Taking into account the need of labour market and employers, the Ministry of Labour and Manpower introduced an employment security regime. The new labour policy initiatives is aimed at creating a favorable environment for facilitating industrial promotion and revival along with legislative and structural changes to bring in an environment devoid of restrictive labour practices, but protecting the rights and interests of the workers.

It was proposed that existing labour legislation be simplified and rationalized into six basic laws. In addition, for promoting bilateralism among government, employer and employees, government has established a forum Workers Employers Bilateral Council of Pakistan (WEBCOP). The government is also working on the development of Labour Inspection Policy under the SMEs Sector Development Program to reduce the interface of government officials with businesses without compromising on the unhealthy work practices.

The only issue highlighted thus far through direct interaction with SMEs is that of co-ordination. The business and labour community at large has been supporting the reforms.

Delivery of Assistance and Access to Resources

Competitive advantage is determined by the productivity with which a country, region or cluster uses its human, capital and natural resources. Pakistan's international competitiveness markedly declined over past few years. Part of the blame is shared by lower productivity of the workers. The evidence reveals that median labor productivity, as measured by annual value added per worker, is 25 percent lower in Pakistan than in India and 35 percent lower than in China.

Trade liberalization at the global and regional levels and the new information and communication technologies have entwined to create rich opportunities as well as formidable challenges to all interdependent countries and enterprises. Competition has become increasingly fierce among the global and regional economies and enterprises. The structure of markets and their demand is increasingly complex.

Despite operating locally, Pakistan's SMEs need to be increasingly aware of the world market. They cannot escape it even in their local economy. To meet this challenge, there is growing need for information on global technology trends, rules and compliance cost including facilitation services regarding global issues.

An integrated program for improving competitiveness, promoting trade, and developing workforce can help. Training, research and development, labour productivity enhancement, technology transfer and up-gradation and support to business startups through business incubation and various other business support services, including finance, are issues that need to be addressed separately by the SMEs policy.

What is important is that access to resources and services necessary to compete in this global environment are being provided to SMEs because their size poses an effective limit on their capacity to assess world market conditions and tap appropriate resources. Old policy tools of protection now require replacement with promotional and facilitation functions. The roles of business development services, hence, become imperative.

The capacity to deliver such services by the public or private sector led institutions is a major topic for debate but also relates to the specifics of the service in question. However, market-driven support programmes are a cornerstone in any SMEs support system, which strives for sustainability. This also maximizes the potential for cooperation with private sector organizations and minimizes the distortions in the market economy. Yet the structures for such a system still need to be mutually agreed and implemented in Pakistan. Below are flagged the important issues.

Finance

Access to equity and formal debt financing has repeatedly been identified as a recurring constraint to SMEs growth and development. Commercial banks apply conservative policies in lending to SMEs. More, importantly the existing structure of financial sector was developed to serve medium to large enterprises, which are organized as a formal business. Most banks prefer to hold risk free-income generating assets and lending to SMEs is unattractive due to a range of objective and subjective factors. These include high transaction costs, inability to do away with tangible collateral requirement, no linkage of financial products with sector needs and the inability to structure/offer and manage risk-prone SMEs specific medium to long term financing options.

It has been observed that 57% of new investment for Small and Medium Enterprises and 67% of working capital finance come from internal finance or retained earnings; only about 7% of funds for investment or working capital come from banks or other financial institutions. Even suppliers' credit rivals the contribution of the banks as a source of working capital (4.5%). Another survey concludes that SMEs are indeed being rationed out of the credit market, rather than merely exhibiting a lower demand for credit.

However, financing SME is one of the key prerequisites for the future development of the national economy and the achievement of economic growth. The Government of Pakistan had originally responded to the growing needs of the sector by introducing a Self Employment Scheme through Small Business Finance Corporation of Pakistan (SBFC) in 1992. SBFC continued to grant loans to small businesses and disbursed 12 billion by June 1998, catering to the needs of 157,162 unemployed persons. Other schemes for SMEs development or employment generation included the Youth Investment Promotion Society, Provincial Small Industries, Prime Minister's Self Employment Scheme, and Yellow Cab Scheme. But all of these efforts lacked coherence across institutions, and, in the absence of any national policy, resulted in disjointed efforts and even corruption.

Previous efforts have therefore had rather limited results and were highly inefficient because the financial sector accumulated a huge portfolio of non-recoverable loans under these schemes. The SME Bank will need to undergo restructuring for next three years.

Furthermore, severe damage has been done because the financial sector has developed disinterest for any such initiatives in future, and we need to basically start from scratch. The banking industry in general is also not venturing into the areas where new processes and procedures with a view to improve SMEs' access to credit are required. It is likely that market-led mechanisms will take some time to improve the access of smaller firms to formal credit. In particular, outreach shall remain to be a problem for the due to the limited presence especially in the rural SMEs market.

The Government is seeking to facilitate the participation of commercial banks in SME lending by training with the assistance of the ADB. The sooner commercial banks obtain the know-how how to successfully engage in cash flow based lending to small enterprises, the better.

Finally, new prudential regulations increase the likelihood of viability and sustainability in the financial sector. However, the broad definition of SME also bear a risk of upward filtering of the loan portfolio towards the higher-end medium enterprises unless targeted programs for micro and small enterprises exist. The creation of SME credit endowment fund may be one way of mitigating this effect.

Human Resource Development

One of the major challenges that SME have to face is the emergence of the knowledge-based economy. People must continue to innovate, change and upgrade. There is a need to nurture the entrepreneurial spirit and skill development for adopting innovative technologies.

The low-literacy level of our population poses an immense challenge to our competitiveness. Yet, it is a fact of life that we will not overcome in the short run. It is therefore absolutely imperative that we seek intelligent short and medium-term solutions to bridge the literacy gap.

One aspect of the Government's strategy is to strengthen non-formal skills and entrepreneurship development, to better prepare workers for employment and to improve the population's general capacity for self-employment. But are there any other ways by which we may enhance the skills of our workforce in such a way that we need not despair when facing external competition?

The Government has established a number of institutions that impart training and skill development. These institutions, Pakistan Institute of Management Sciences (PIMS), Technical Training and Vocational Authority (TEVTA), Provincial Vocational Training Councils, Government Universities and various other support institutions have, however, remained rather passive regarding the shaping of human resource development for SME.

A frequent complaint is the mismatch of the output of our human resource development institutions with the demand of SME. There are also only limited training options for middle management. Low skills of work force, inadequate vocational training facilities yet remain outside the scope of the reform agenda. Are there any mechanisms by which we may achieve effective consultation between the supply and the demand side of our vocational training system so as to attain a maximum benefit for our economy?

Entrepreneurship does not breed in a vacuum. For a healthy, growing business environment, it is necessary to foster entrepreneurial culture in Pakistan, which goes beyond the inclination to trade in goods. Entrepreneurial skill development programs can boost this.

Technology Transfer and Up-gradation

Developing SME based on local skills/resources has now been rightly recognized as a means of promoting economic growth and a very effective tool for providing productive employment in any country.

But up to date technology also plays a vital role in the vertical integration of firms, moving them up the economic ladder in terms of firm productivity enhancement.

In our country, growth oriented exporting firms still have problems sourcing quality inputs due to the lack of a network of reliable suppliers. This adds to their transaction costs. Likewise, the SMEs are not large enough to furnish sufficient demand to be an incentive for a big high quality input supplier.

The Government in its efforts to facilitate technological transfer for indigenous SME initiated a program with the United Nations Development Program (UNDP) to promote Technical Cooperation among Developing Countries (TCDC). The scope of Phase I remained narrow and focused on capacity building of various public sector organizations through training programs. The intended final beneficiary, SMEs, has not yet been able to benefit from the program.

In its other efforts, the Government used to offer cash grants for ISO Certification to those enterprises that chose to be growth-oriented internationalized SMEs. The Government also set up a National Productivity Organization as a resource center and a research institute to enhance industrial and labour productivity in Pakistan.

Similarly other organizations like Pakistan Council for Scientific Industrial Research (PCSIR), Pakistan Industrial Technical Assistance Center (PITAC), Ministry of Science and Technology (MOST) etc. established to facilitate industrial growth still need to adopt an active approach to provide their services to SMEs in an effective manner. Major technology up-gradation obstacles include:

a. Inability to acquire sophisticated testing equipment and R&D Facilities. (SME see it as a financial problem.)

b. Lack of skills/ experience to operate high-tech machinery.

c. Insufficient information on technological co-operation opportunities.

d. Lack of information on target market quality requirements and lack of knowledge on how to achieve these quality levels

e. Absence of appropriate metrology and testing equipment and related infrastructure as common facility centers

Market and Industry Information

Access to market and industry information is one of the keys to develop successful business strategies. Frequently, business and trade associations are able to provide their

members with such services. By associating with like institutions in foreign countries, they are also able to establish links and obtain information on foreign markets.

Over half of our SMEs (54%) belong to a business or industry association. Their perceived role is limited to lobbing and negotiation with the government. Yet very few SMEs (12%) perceive their associations to be a source of information on new developments in their fields of business operation. How to increase the service provision by all types of stakeholders will become a fundamental issue when SMEs support programs will be looking for delivery channels.

Monitoring Developments

Harmonizing Enterprise Size Categories

Pakistan has no across-the-board legal definition of SME. This makes it extremely difficult to monitor the development of our SME economy and to establish benchmarks against other countries in order to devise areas of intervention and support.

Various government departments and public-sector agencies have adopted their own definitions There are, of course, various reasons for them to define SMEs, and there may even be discussion on just how a strict and reasonable size standard could be defined. A number of current definitions are based on capital standards since this influences patterns of fund raising in the formal and informal financial market by SMEs.

Many stakeholders consider enterprises with 100 or more employees as large, and enterprises with less than 5 workers as micro. Yet our statistical system classifies enterprises with more than 10 employees as large, and the State Bank of Pakistan considers those with more than 250 employees as large.

The reference to international practice also suggests differentiation among industrial, whole sale, retail and services related enterprises. This view also gets credence from various studies on the issue for Pakistan. Again, this consideration is only visible in the SBP definition and missing in all others.

There are also rationales beyond the particular organizational motivations for defining specific size classes, and it will therefore be useful for all stakeholders to review definitions on technical grounds. For a national policy, it is extremely important to have a harmonized definition for as it is important for the government to focus assistance as reasonably as possible for maximum efficiency. It is also imperative to adopt a definition to foster the coherence of vision in SMEs policy development and for the better implementation of related support programs across institutions.

Measuring our Success

Public resources are as scarce as private sector resources, and we need to ensure that they are being used in the most efficient way so as to be able to create and maintain sustainable support structures for SMEs which are able to perform in the long run. At the same time, we, of course, seek a maximum effectiveness of our support programs.

As things stand, we have no mechanism in place for measuring our success. In fact, we do not even have any criteria established by which we are able to determine our success as a nation in fostering SMEs development. And we are not able to correctly state what the Government is spending on SMEs support annually.

Our present "system" of support is incoherent. While division of labor with diverse stakeholders is a necessary condition for obtaining a maximum reach, it is also a perfect ground for duplication of activities and wastage of resources. There is no current overview of activities, and the various stakeholders compel us to commission specific research if we seek information on the diverse on attributions. What is at stake is that we forego the benefits of learning from one another in order to continuously improve our support structures to meet the needs of the target group, SMEs.

SME as a Medium-Term Channel for Other Objectives

It is common practice in many countries to make use of the SMEs in order to further specific development objectives as, for example, sustainable or equitable development. After all, SMEs constitute the overwhelming part of the economy. Currently, we are not making sufficient use of this channel for promoting the development of our country. Two issues, which also relate to our competitiveness, are flagged in the sections below.

Gender Development

Each of the two genders of any society constitutes roughly half of the population, and Pakistan is no exception. People of both genders embody not only labour force, but also knowledge and creativity, which may be mobilized, to achieve economic ends. Discarding either of the genders, therefore, implies foregoing the potential benefits, which arise from mobilizing the respective human resources for development.

Pakistani women have been engaged in production process for ages. Their participation in economic activities in the modern society has also progressed beyond agriculture into the local market economy. Women are increasingly migrating to urban areas for employment in a range of cottage industries, such as carpet weaving, textiles and handicrafts. In search for wage employment, women are moving into small business and self-employment ventures thereby creating many formal and informal opportunities for work.

Women entrepreneurship in the formalized sense, however, remains a new concept. Our current strategies also tend to focus on increasing women's participation in the labor force.

The business environment for women in Pakistan reflects a complex interplay of many factors made up of social, cultural, traditional and religious elements. These have taken shape over many centuries; are anchored in the patriarchal system and are clearly manifested in the lower status of women. The form of constitutional structures, policy documents, regulatory arrangements and institutional mechanisms is contemporary rather than traditional, so it is cosmetically impartial.

Yet, the gender bias is rigid and deep-rooted as it draws legitimacy from the perpetuation of a traditional mind-set, established rituals and a firm belief system. It has

conclusively been shown that women business owners encounter more obstacles, and face more risks, financially, socially economically, culturally and legally than male business owners face.

The Government of Pakistan is well aware of the potential of women in our society and the contribution that they can make towards economic development. Women are continuously being encouraged to enter the business stream of our country and are being provided incentives. However, there still is a strong dearth of focused initiatives that need to be taken by existing business facilitation institutions.

Environmental Issues

Environmental issues are most frequently a result of the interaction between human activities of production and the environment. Under fierce competitive pressure in the market economy or as part of a coping strategy when faced with difficulties to cover basic needs, enterprises and individuals are creating environmental issues.

While certainly one of the economic root causes for environmental damages are externalities, which require appropriate government intervention, it is frequently overlooked that there are many economic gains, which may be achieved from producing in an environmentally friendly manner. Reducing material waste can be one way of reducing input cost. Saving resources such as water and energy does not only generate benefits at the national level but may translate into competitiveness and thus economic gain at the enterprise level.

There is also a direct link between the effectiveness of technology transfer and the stabilization of global climate change and natural resources depletion. Major constraints to effectiveness lie in the high transaction costs associated with the development of capacities and capabilities to manage and generate technological change. Developing country enterprises thus tend to ineffectively exploit available technology options, as well as to inefficiently utilize the transferred technologies.

Many OECD countries make use of channels of SMEs promotion in order to achieve improvements for the environment. For example, special credit lines may be provided in order to encourage the adoption of environmentally friendly technologies. Specific training courses are being offered to SMEs on waste reduction. ISO 14000 is actively being promoted in the European Union as one way of combining environmental concerns with quality and thus competitiveness. How may we best use our current and future SMEs support structures in order to achieve positive effects?

Long-Term Issues

There are issues, which are beyond the scope of our current interventions. They are partially rooted in the multiple cultural structures of our society, frequently exacerbated by our geo-political situation. We, nevertheless, recognize their importance and therefore point them out here. However, it is not recommended to attempt to solve these questions by ways of an SMEs policy initiative.

Literacy

The evidence reveals that SMEs find it extremely difficult to grow because of their inability to delegate to soundly trained staff. The day, the small businessman feels comfortable to delegate, SMEs start progressing.

The low literacy level also determines the potential of our labor force. Higher literacy rates are essential to enhance the quality of production can be enhanced by multiple factors which is what we need to be able to effectively compete in the international economy which is being extended to our local markets by the effects of opening up and WTO accession.

Law and Order

Law and order situation in Pakistan has always been regarded as worrisome. One survey reports that one in five respondents report that the business was the target of at least one crime during 2002. Another and Punjab 1-2% of their revenue on security. One in four SME consider law and order to be a severe problem.

Law and order problems weaken property rights and as a result weaken the investors' decision to invest. These problems are clearly linked to the manner in which the law enforcement and criminal justice system functions. The high time cost involved in seeking legal recourse together with lack of access to both effective informal and formal enforcement mechanisms, increase the costs associated with contract enforcement.

Intellectual Property Rights

Intellectual Property Rights (IPR) is a vital issue that needs to be looked into. It has been observed that many developing countries, with the help of a change in their IP systems and laws, are able to attract Foreign Direct Investment (FDI) in the Research and Development (R&D) especially in the industrial and scientific field. Therefore, promotion and protection of intellectual property spurs economic growth, creates new jobs and industries, enhancing the quality and enjoyment of life.

Another benefit for Pakistan in properly adopting IPR culture is that it will protect the indigenous products such as rice, kinno, traditional knowledge, pottery etc. The owner of IPRs has the most valuable assets, which can be utilized in commercial transactions, whether IP licenses, joint ventures, manufacturing, purchase, or distribution agreements, or mergers and acquisitions. Licenses to use patents, trademarks and copyrights, are often combined with transfer of know how in the form of training and are increasingly an important term in such transactions.

Infrastructure

Basic physical infrastructure is a prerequisite to growth and development. Power outages and access to connections are considered an irritant, which significantly affects the productivity of firms in Pakistan. It is estimated that a typical business in Pakistan loses 5.6% in annual sales revenue due to just this single factor.

Differences associated with firm size recognize that smaller firms are relatively hard hit in comparison with the larger ones because of inability to arrange alternate power source such as private power generators. High rates of power, the poor quality of delivery and its reliability are the serious concerns of SMEs.

Similarly, access to telecommunication facilities and transport also serve as a detriment to smooth growth and transition of smaller firms to larger ones. The chief problem in the provision of telecom services is the shortage of new fixed line connections, which currently stand at a mere 0.5–0.6 million a year for the whole country. Pakistan could also save up to 16.5% of the value of exports by improving its trade and transport logistics systems. Inefficiency in transport alone is estimated to cost the economy Rs. 320 billion a year.

The concentration of power, telecommunication, and transport services, except for road transport, in the public sector has been regarded as the major concern. Evidence suggests that Pakistan's state-controlled and concentrated structure of infrastructure delivery is highly inefficient.

SME linkage with Large Enterprises

SMEs seek economical and efficient ways of sourcing the skills, materials and services to produce commercial goods; commercial interactions between different profit-oriented enterprises necessitate business linkages for increased production, product diversification, specialization and higher productivity. Business linkages are generally made in the form of supply chains comprising procurement, outsourcing or subcontracting of activities between large and smaller firms.

Business linkages take various forms, both formal and informal. Formal arrangements include supply contracts; marketing, franchising or technology licensing agreements; and partnerships or joint ventures. Informal arrangements can include collaboration in market information or technology transfer networks. SMEs should measure and monitor the costs and benefits of the linkages they make. SMEs have previously enjoyed protection in local markets, but after globalization they are subject to fierce international competition, endangering not only their expansion but also even their technological and economic survival. There is a need to develop an effective, comprehensive and coherent strategy for the development of SMEs in Pakistan where consideration should be given to including competitiveness, innovation and e-business development.

Globalization has given rise not only to threats but also to possibilities. For example, improvements in telecommunication and transport technologies in particular have sharply reduced the entry barriers and transaction costs involved in exports, thereby encouraging small businesses. An important case for SMEs development and their impact on the national economy can be cited from the experience of Taiwan , a Province of China, who's SMEs are generally credited with rescuing the economy from the Asian financial crisis. The advantage of SMEs regarding their flexibility and adaptability to complement efforts to sustain economic initiatives was seen during the 21 September 1999 earthquake. Ninety-seven per cent of local SMEs were found to have resumed production within one month of the deadly earthquake. What this indicates is that given that support measures such as IT, e-commerce and other new technology are provided for

SMEs through strong linkages with large enterprises, these SMEs can survive new global competitiveness in volatile and changing market conditions.

Seeking particular market niches in which SMEs can enjoy comparative advantages demands partnership between SMEs and other private firms or service providers to develop the skills. Market failures impede the development of linkages. These barriers are as follows:

a. Lack of awareness of potential business partners.

b. Lack of public marketing or research institutions.

c. Inadequate awareness of ISO standards; export procedures and regulation.

d. Geographical, educational or cultural gaps between SMEs and big business owners.

e. Lack of access to the legal, financial and technical aspects of enterprise management.

f. Inadequate physical infrastructure.

These barriers demand that support mechanisms and physical facilities be provided to stimulate the linkages. Economies in transition and in least developed countries (LDCs) suffer from cumbersome administrative and tax burdens that weigh heavily on SMEs to delay their graduation from the informal to the formal economy. Enabling a business environment that encompasses a stable macroeconomic policy, a favourable legal and regulatory framework and adequate physical, social and institutional infrastructure is therefore needed since it is a prerequisite for private sector development. Providing effective business services to enhance the competitiveness and capacity for growth of SMEs should follow enabling such an environment. Linkages with large enterprises will reduce such difficulties as market access, finance and technology.

However, it is widely agreed that business services should be demand-driven together with supply-driven. It is commonly found that traditional banks and investors have a bias towards large borrowers because of the high risks and transaction costs involved in serving SMEs. It is for this particular reason that access to long-term credit and equity (including venture capital funds, leasing and insurance) should be made available to SMEs through the development of innovative mechanisms, which could support their quest to expand. In order to counteract market failures, it is necessary to provide well-designed public support services to the private sector for pro-poor economic growth. These services include information, skills and physical resources that help to link the private sector with other businesses, particularly between large companies and SMEs. Furthermore, the vertical and horizontal integration of the business sector through business linkages should be seen as an important contribution to employment creation and poverty eradication.

Linkages between SMEs and Large Industries for Increased Markets.

The micro-enterprise sector is not only important because it create jobs; it can also be an instrument of "participatory development" since it enables a wider section of the population, particularly the poor, to participate in the process and benefits of development. In addition, SMEs not only help to integrate marginalized elements of society— making better use of human energy and initiative— but also they can act as a breeding ground for entrepreneurs.

There is much evidence that SMEs can be transformed into modern small and medium-scale enterprises. A study on African entrepreneurs reported that several entrepreneurs began their businesses on an informal basis. For example, an egg producer in Ghana started with less than US$200, three chicken pens and 900 day-old chicks. The study indicates that the business grew to employ over 300 workers and has a turnover of US$1.5 million. A garment maker in Botswana began with US$100 personal savings, a rented shed and sewing machines, and two apprentices but now operates a business that employs 65 workers. A Malawian left school at 18 to work as a self-employed tobacco grader, and became owner and managing director of four companies engaged in tobacco growing and curing, commodity processing and exporting, property investment and importation of machinery with a turnover exceeding US$1 million. A family-owned conglomerate in Ghana, which manufactures clothing, spirits, furniture, textbooks and other educational materials, and imports vehicles and equipment, grew from only a small dry-cleaning shop.

The progression from micro enterprise to SME, and from SME to large companies is heavily dependent upon the strength of the linkages forged during this dynamic process. These linkages compensate for the shortcomings and constraints facing SME operators in an ever growing, competitive and in global economic arena.

Constraints on SMEs Development and the Need For Linkages

SMEs development in Pakistan has been hindered by many economy-wide and sector specific problems including:

a. Excessive state involvement in the economy that prevented indigenous entrepreneurs from gaining managerial experience in dynamic medium and large-scale enterprises.

b. SMEs have been starved of capital and other inputs with credit directed to larger enterprises, even when practical experience has shown that it is possible to lend profitably and effectively to SMEs.

c. SMEs have scant access to foreign funds and foreign direct investment, reducing their ability to upgrade their technology and managerial know-how.

The process of increasing liberalization and globalization, which is putting Pakistan large industries as well as SMEs under increasing pressure, has now compounded these problems. Large industries and SMEs are required to compete with the industrially advanced countries at a time when markets are more competitive, volatile, and fluid than ever before. A more open trading environment requires SMEs to compete with imports

and increase their exports of industrial goods; but foreign producers are becoming more competitive and export markets are ever-more demanding in terms of quality, delivery and product features. How can Pakistan's SMEs overcome these challenges?

On their own, large as well as small firms will find it extremely hard to overcome these challenges. Whereas, in the past it was conceivable for a single firm to meet all the input and technology requirements for its output, the degree of sophistication and expertise required to produce goods at internationally acceptable standards have made it necessary for firms to cooperate in their operations. As unsuccessful experiences have shown, for industries to succeed in the current economic environment, forming horizontal and vertical linkages is important. The factors that prompt industries to form networks and alliances to compete effectively in the current and rapidly changing global environment include:

The Emergence of New Exporting Opportunities.

Existing and new markets are opening up as countries liberalize their trade under the auspices of the World Trade Organization (WTO) and business becomes more global. While offering better exporting opportunities, these developments also pose considerable challenges. In order to access these markets or defend themselves against foreign competition in their own markets, it is imperative that large industries and SMEs adopt a global outlook and form strategic partnerships, both domestically and in foreign markets. For example, they could form strategic alliances with strong foreign distributors as a way of accessing new markets, while at the same time improving the quality of their products.

Non-price Competition is Becoming Increasingly Important.

The process of liberalization and globalization has made non-price competition increasingly important. This encompasses all those factors, other than price, that affect market performance. SMEs have traditionally tended to focus attention on production, sometimes at the expense of quality. SMEs will have to pay more attention to non-price elements such as packaging, quality, international standardization and timely delivery of products. Successful SMEs are going to be the ones that respond rapidly to changing customer needs. Strategic partnerships through industry linkages provide flexibility to allow SMEs meet such requirements.

The Emergence of Knowledge-Based Production Structures.

Developments in information technology, transport, agriculture, manufacturing and finance are likely to erode further the competitiveness of large firms and SMEs even in areas where they traditionally held a comparative advantage. If large firms are to respond effectively to changing customers' needs and take advantage of changing production incentives, it will be imperative that they improve their technological capabilities. To keep up with these changes, large firms and SMEs will have to form strategic alliances with the providers of technology, giving them access to state-of-the art production techniques. Local firms could also forge joint ventures with foreign firms. Forming joint ventures has a number of advantages to local firms. Involvement with a foreign company not only gives the domestic firm access to its partner's technology, but through learning-by-doing it may be able to adapt that technology to local conditions. Foreign firms can also supply technically skilled and managerial personnel.

Large Firms and SME Production Linkages

In more general terms, a distinction can be made between three main modalities of linkages in industry, namely: ***alliances, clustering*** and ***networking.*** This distinction is not exhaustive and should not imply that the existence of one type of linkages will preclude other types. In practice they can coexist and interrelate across industries, production sectors and countries. As can be seen in the case of Mauritius, for instance, the textile industry is experiencing both clustering and vertical integration through networking or alliances with foreign firms.

Alliances

Firms coming together in some contractual arrangement form an alliance. The well-known types of contractual arrangements include the following:

a. **Subcontracting**: involves buying supplies from another firm and working closely on detailed specifications for a complex product.

b. **Licensing.** It includes permission to manufacture a product under license, to distribute a product and to include product in another design.

c. **Joint-Venture**: It involves the creation of a third firm to manufacture or market a product, which had been developed by the entrepreneurial firm. The partners usually shared equity.

d. **Strategic Alliance.** It is essentially a joint venture without the creation of a third firm and no equity is involved

e. **Consortium.** It is usually a group of firms joining together in a buying group to purchase components or equipment, which they mutually share.

Alliances between large companies and SMEs usually take the form of vertical linkages where inter-firm relationships are forged along the lines of the production and marketing chain within a specific industry. It essentially represents the contractual relationships between a parent firm and its ancillaries.

The parent firm depends on its specialized ancillaries for the timely delivery of high quality components and services, while the ancillaries owe their livelihood to regular sub-contracting from the parent firm. In order to ensure the quality of the goods and services it receives, it is sometimes necessary for the parent firm to extend financial, operational and managerial assistance to the ancillaries. For their part, the ancillary firms strive to achieve quality-assurance and maintain a technological edge in order to remain within the sub-contracting chain. It is not uncommon for contractors to become fully independent, specialist entities in this process. This form of networking is most prevalent in manufacturing concerns requiring a wide range of processed, and standardized, inputs.

This symbiotic relationship between the parent and ancillary firms is eventually efficiency enhancing which makes them instrumental in increasing marketing and trade in a number of ways: Avoiding uncertainty in the timing and quality of inputs (both goods

and services). Allowing for expeditious adaptation to technological advances. Removing the burden of rigorous post-delivery quality checks of all inputs. Ensuring greater flexibility to respond to change and stimulate innovation through interaction.

Enhancing division of labor and specialization in marketing with the parent company catering for the requirements of price and non-price competition in international markets, while the ancillaries concentrate on meeting the quality and price requirements of the parent company. Hence, linkages of this sort involve risk and cost sharing and considerations for market access and power. They also imply mutuality, in the sense that beneficial contributions emanate from both partners.

Clustering

A cluster is a group of firms concentrated in one geographic location and working in the same sector. Firms may or may not be actively collaborating. Clusters of firms may or may not involve formal partnerships between spatially proximate firms. They are thought to facilitate access to externalities public goods such as water, electricity, and the right kind of labor force. Clusters can be defined as industrial districts, which are locally coordinated, and articulated economic systems, normally specializing in limited lines of products and supported by local government authorities through policy dialogues and support structures. Thus, firms in such clusters benefit from both the division of labor and the externalities of spatial agglomeration. A cluster can enhance production, marketing and trade through:

a. **Allowing more Efficient Division of Labor**. Having a cluster of enterprises within close proximity facilitates the production process, especially in cases where the firms are producing the same goods, by allowing for a strategy of labor division.

b. **Facilitating the Provision of Infrastructure**. Industrialization requires large investments in infrastructure and other production-servicing facilities that a developing country may not be able to provide countrywide. The available meager resources can be devoted to the provision of these facilities within a small confined cluster area.

c. **Facilitating more Effective Application of Export Incentives**. The provision of countrywide export incentives, such as exemption or rebate systems, requires a high level of technical and administrative capacity. There is also the risk of abuse of these systems, with duty-free inputs not being used for export production and with exemptions and rebates provided to unqualified firms. A cluster area can help to avoid these costs and risks, since the use of duty-free imports and the provision of other incentives are more easily monitored in a confined area.

d. **Enhancing the Integration of SMEs with Large Industries**. A possible end result of clustering is that firms producing the same goods and clustered together may be able to integrate with larger enterprises, for example, in a consortium or an alliance.

e. **Promoting Production Efficiency**. Clustering can also improve technological and managerial know-how through emulation, tacit knowledge

transfer and lower transaction costs as trust builds up and/or through the ease of transaction that comes from 'geographical proximity.

Networking

A network is a collection of firms working in cooperation, though not necessarily in the same place. It described arms-length interactions between firms, such as international production or distribution networks. It includes interaction across a supply chain without the necessity of having either formal links or equity participation. The main characteristic of a network is that it does not require geographical proximity to be efficient. It can link firms whose activities are distributed around the world. Networks of small firms and international production as well as cooperation organized through subcontracting and/or foreign direct investment by multinational corporations is included in this category. One peculiar form of networking is what is called horizontal networking. Firms producing similar product lines benefit the most from horizontal networking. A small group of firms cooperate in the production of a final product by specializing in specific steps of the production process. A distinguishing characteristic in these arrangements is that unlike vertical linkages no firm performs a dominant role. The division of labor is determined by each entities comparative advantage in the production process.

Comparative advantage is determined by asset endowment—be it equipment, skill or resource). In this complex set of arrangements, the assembly and marketing of the final product is handled by a separate entity. Examples of networking across sectors may be found in family businesses or dominant finance houses. The automobile and shoe industry, where different entities produce the various parts and a separate company buys, assembles and markets the products provides a good illustration of horizontal working. Networking can enhance marketing and trade through the following channels:

a. **Enables Firms to Share Risks and Costs and Access Markets**. It improves price competitiveness through reductions of production and transaction costs, as well as enhancing market penetration and market power.

b. **Increases Knowledge about Markets, Suppliers, Customers and Competitors**. Networking links small, medium and large enterprises by an exchange of information (for example of technological or marketing nature), commercial relationships (between suppliers and customers) and competition relationships in order to develop a responsive organization or production system.. In clustering, the same way the multiplier works forward it also works backward.

Linkages with Banking Industry

The relationship between the Micro Financial Institutions, banks and SMEs may be described as a form of vertical enterprise networking. Furthermore, the benefits of this relationship generate clustering among informal finance operators, as they discover the importance of scale economies in their financial transactions with the Micro Financial Institutions (MFI). The modalities of MFI operations facilitate risk pooling, information sharing and collective responsibility. This makes their portfolios more stable and deposits more secure. Quite apart from functioning as intermediaries between the SMEs and formal banking institutions, MFIs also play a catalytic role for individuals, communities and institutions involved in the provision of informal finance. By pooling risk and credit

demand, the MFIs are in a position to channel credit from formal institutions to SMEs at reasonable cost, while mobilizing deposits from the informal sector at minimal unit cost. The opportunities for pooling create a more conducive environment for enterprise networking among SMEs.

Forging Links in Deposit Mobilization

The emergence of MFIs has enhanced the capacity to mobilize financial assets from hither to un-serviced sections of the population. Deposit mobilization is crucial to the sustainability of financial intermediation as it supplies resources, which can be recycled and reduce dependence on more costly finance from outside the community. Additionally, the accumulation of such deposits could provide significant leverage opportunities for the MFIs. Regulatory authorities in developing countries and in Pakistan should, therefore, endeavor to introduce policies and procedures that favour the establishment and development of MFIs. Relevant legislations, supportive institutions and supervisory arrangements must also be introduced to provide the requisite institutional framework. While direct contact between banks and informal deposit mobilizers is very useful, the use of semi-formal institutions (such as savings and loan companies, well-functioning finance houses, and credit unions) also holds considerable potential. It is often suggested that when markets are fragmented, it is best to develop new institutions that will integrate markets before attempting to regulate them. In an efficiently operating market-based economy, the development of such institutions is likely to take place if the demand for additional financial services exists. The supportive role of Governments in this regard is crucial.

Forging Links in Credit Allocation

One way to link up banks and informal lenders for purposes of credit allocation is to develop an agency relationship in which loan able funds are channeled through MFIs for on-lending to small borrowers (be they SMEs, informal retail lenders or individuals). The operations of informal operators in various parts of the continent provide valuable insights into the means by which such arrangements might be pursued effectively, cost-efficiently and sustainable. The importance of vertical linkages and horizontal clustering cannot be overemphasized. While the principle of channeling credit through informal sources is accepted, caution must be exercised in the choice of informal agents that might act as conduits for such lending. It is important to rely on well-established agents that operate from within recognizable bodies-such as associations, cooperatives, companies, unions, etc. These have greater credibility than individuals do. In a number of countries, individual moneylenders who maintain long-standing relationships with banks could be useful for this purpose. The policy of channeling formal credit to informal lenders may be defended on the grounds of efficiency and increased financial integration, especially among small farmers. Informal lenders can build a personal relationship with borrowers that can ensure an extremely low loan default rate. Encouragement of more subcontracting in the real sector would also generate more parallel financial linkages. For example, if leasing companies could pass on tax benefits to banks in order to obtain better credit terms, they could in turn pass on more finance to their clients.

Government Policies Supporting SMEs and Industry Linkages

Creating an enabling environment is crucial for the successful development of SMEs and promoting efficiency-enhancing linkages between industries. SMEs have flourished in environments where governments have allowed the markets to operate freely and firms have been allowed to compete with each other. Many of the most impressive linkages between industries — e.g. in Italy, Brazil, Pakistan have emerged largely spontaneously. But other successful experiences — e.g. in Mauritius, Korea, and Taiwan — suggest that governments can assist a great deal in the process. Hence, the introduction of market reforms does not necessarily rule out the role of government. Government policies to support SMEs development and industry linkages fall into the following main groups:

Finance and Credit.

There is a need to extend financial services specifically tailored to the needs of SMEs. Although informal arrangements have served as sources of finance, they have proved insufficient in meeting the needs of MEs and SEs. For example, because of the size of the sector and the environment in which they operate, informal arrangements do not provide long-term finance. Thus, there is greater urgency to find innovative ways of providing micro finance to meet the financial requirements of MEs and SEs. Efforts should concentrate on upgrading informal financial arrangements, strengthening their links with formal institutions, and improving the legal framework. Informal financial arrangements such as savings clubs and credit associations can be upgraded into cooperative banks. Linkages between formal and informal institutions can be promoted by providing fiscal incentives, such as tax relief on the profits of formal financial institutions with informal linkages. There is also a need to improve the legal environment through better definition and enforcement of property rights of MEs and SMEs.

Supporting Technical Services.

In addition to financial services SMEs require a variety of other services such as contract services, general advice, information, and basic managerial and vocational training for their development. They also need assistance in areas such as management and skill development, technology transfer, counseling, marketing, and collecting and assessing market information. While many SMEs-supporting services could be commercialized, the government has a prominent role to play in the provision of business support programmes. These services are needed during the stage of starting-up as well as during later phases of expansions and linkages with other industries.

Initiatives to Promote Subcontracting.

Government would need to adopt the policies and legislations that promote subcontracting between domestic as well as foreign industries. Subcontracting is an increasingly important factor in promoting linkages and improving the competitiveness of businesses. Intensive competition in the international market is inducing more and more large companies to contract out some activities in an effort to reduce the size of their operations and concentrate on their core business. This process offers considerable opportunities for specialized subcontractors and could help to stimulate growth and employment of SMEs.

FDI and SME Linkage

There are numerous benefits of FDI to host economies. These benefits include sources of external capital, technology and knowledge transfer, employment generation, skills enhancement and human capital development, and enterprise development through linkages and spillover effects. They also include increasing international trade integration. The potential benefits of FDI to host economies and local SMEs have been summarized in five main types:

a. **Backward Linkages with Suppliers.** This refers to the extent to which components; materials, and services are sourced from within the host economy, since this can create new market opportunities for local firms. Such linkages can range from arms length market transactions to deep, long-term inter-firm relationships. The productivity and efficiency of local suppliers can benefit from this type of spillover as a result of direct knowledge transfer, higher quality requirements and increased demand levels. Backward linkages with suppliers have traditionally been seen as the main vehicle to promote technological and other spillovers from MNCs into host economies.

b. **Forward Linkages with Customers.** These can include marketing outlets, which may be outsourced. Examples include petrol stations and restaurant chains; and linkages with industrial buyers, through, for example, value added after-sales services.

c. **Linkages with Competitors**. Foreign investors may set new standards, which local firms may seek to compete with. Although MNCs may hold a strong market position in relation to local firms, it should be noted that linkages with competitors might refer to second and third tier suppliers to leading inward investors, and not just first tier suppliers to the MNCs themselves.

d. **Linkages with Technology Partners.** Some MNCs may initiate common projects with indigenous SMEs partners, including joint ventures, licensing agreements and strategic alliances, which are an important potential source of technology and know-how for firms in the host economy. Whilst such co-operation may be a more common feature of more mature market economies, the number of inter-firm technology agreements involving partners from developing countries rose in the 1990s compared with the 1980s.

e. **Other Spillover Effects**. These include demonstration effects, as inward investors demonstrate new and better ways of doing things to local firms, representing a source of, and stimulus to, innovation. They also include human capital spillovers, when, for example, trained personnel leave the inward investor to work for a local enterprise and/or set up their own business.

Enhancing FDI and SME Linkages.

Understanding the rationale for clients (MNCs) outsourcing products and services to suppliers (SMEs with capability to meet stringent quality, cost and delivery standards of

MNCs) would clarify implications for SMEs and their development for enhanced FDI linkages. Studies indicate four main rationales for outsourcing:

a. **Productivity Gains***:* Where suppliers are able to produce specialized inputs, the SME partner has a certain bargaining power. Such linkages are based on mutual specialization, typically going beyond arms-length transactions. They may involve a long-term commitment on the part of the customer, with considerable transfer of technology and knowledge. At the same time, it has been suggested that for FDI to have a positive impact, the 'technology gap' between domestic and FDI enterprises must be relatively limited.

b. **Factor Cost Advantages**. In such situations, the supplier is potentially much more vulnerable than where productivity gains is the main rationale, because price competition is typically fierce, with continued downward pressure on prices and costs.

c. **Numerical Flexibility**: This involves occasional or overflow subcontracting, in response to demand peaks. In such circumstances, suppliers have to accept short-term contracts and face little security or stability.

d. **Functional Flexibility***:* This also involves responding to fluctuations in demand, but in this case through active, functional flexibility, based on a multi-skilled workforce and flexible equipment. Such circumstances are more favorable for the supplier than the case of numerical flexibility, although the supply base required is less commonly found in a developing/transition context.

Assuming that sound macroeconomic policies and political stability characterize the business environment (since these framework conditions are the lowest minimum that will attract FDI), enhancing FDI-SME linkages is a matter of implementing support measures to improve the competitiveness of local SMEs. SMEs would have to be immersed in an institutional environment that would encourage learning and innovations and trigger investments by SME to upgrade. Building the capacity of local SMEs will require facilitation by intermediaries.

SMEs Role in Auto Industry in Pakistan.

Introduction

Automotive industry is more than just an industry. Many have called it “The Industry of the Industries” by Peter Ducker a “Mother Industry”. In Pakistan, it is a strategic industry as it provides the technology and skills, which spill over to sensitive industries as well. Auto Industry has been used by many countries to develop their economies and has become the backbone of industrial initiatives. The total number of vehicles in Pakistan is over 4.9 million units. Annual demand is estimated at 300,000 units, which is being met from local sources and imports. Total imports are valued at US$300 million. The local production of after market vehicle parts and accessories is estimated at US$850 million. Five hundred vendors in formal sector and sixteen hundred in informal sector manufacture vehicle parts and accessories support over dozen vehicle manufacturing and assembly facilities in Pakistan. Only six of these vehicle manufacturers are engaged in the manufacture/assembly of buses and trucks.

Auto industry provides direct and indirect employment. The total employments including OEMs & vendors are over 500,000 persons including technicians, engineers and management staff. Auto parts industry in Pakistan is contributing over Rs 8 billion annually to the national exchequer. Total contribution in revenue is Rs. 198.26 billion. It saves foreign exchange to the range of about US$ 3,304 million by import substitution. The contribution of this industry in our GDP is over Rs. 200 billion. However, as local production is short of demand ;therefore, auto industry in Pakistan has the great potential to generate local investment and opportunities, and can expand its operations to contribute in attracting foreign direct investment, eradicating poverty and unemployment and in the development of the economy of the country.

In Pakistan there are only 7.5 cars per thousand persons; the world average is 120, India is at 9 and China 12. To reach 12 per thousand persons by 2010 we need to start producing 250,000 – 300,000 vehicles per annum from today. The potential is very substantial and its effect on our economy will be profound and benefits to the populace at large.

This industry can create the magic; our country needs to leap frog into the future of choice and shake hands with tomorrow. Pakistan automobile industry was regulated until early 1990's. After de-regularization, major Japanese manufacturer entered into Pakistani market to produce vehicles locally thereby creating intense competition in this sector.

Brief History of Pakistan Auto Industry

National Motors Limited, a public limited company and the pioneer in the industry, came into existence in the 1950s. Established by General Motors of USA in 1953, National Motors assembled passenger cars as well as commercial vehicles, which carried “General Motors” brands such as Bedford, Vauxhall, Chevrolet and Holden. Later it was bought over by Pakistani entrepreneurs, Ghandhara Industries Limited. It was subsequently nationalized, and afterwards once again sold to its initial owners i.e.Ghandhara Industries Limited.

A regular car industry in Pakistan started in the country in 1983, when Suzuki commenced production eyeing the small and LCV car segment of 800cc-1000cc ranges, and introduced Suzuki car, which targeted the middle-income group (constituting the larger segment of the market) by providing an affordable car. The company's success can be gauged from the fact that since its inception, Suzuki has enjoyed the position of a market leader in small car segment, assembling 800cc and 1000cc small passenger cars as well as 1000cc jeeps, Potohar.

In 1993 Indus Motor (Toyota), and in the succeeding year (1994) Honda Atlas commenced their operations in Pakistan as the main competitors to Suzuki in the high price segment of the market (i.e.1300-2000cc range) but the Suzuki continued to maintain its edge over the market with its 1300cc (Margalla) Baleno.

In sum, till recently three main players i.e. Pak Suzuki, Honda Atlas and Indus Motor dominate the market. However, in the recent years with the emergence of competition from new entrants i.e. Dewan Farooque, Daihatsu, Hyundai Motors and ADM motors -all of who have introduced a number of new product lines, this dominance has been challenged. Assembling of Daihatsu cars, Hyundai cars and LCVs, Kia cars and LCVs and Fiat cars and ADM cars have commenced recently. Consequently, the paradigm of auto industry in Pakistan has undergone a radical change. The sudden competition in small car segment is expected to pose challenge for leading names in the market especially Pak Suzuki, the former lone player in the market. In near future Dewan Farooque will offer the widest range of products in the domestic automobile market, which will further intensify already stiff competition. With the growth of automobile industry, a well-established auto parts industry came into existence to supply deleted parts to the assemblers and replacement parts to the market.

The auto industry capacity, vehicles being manufactured, deletion level achieved, investment made and employment opportunities created in this sector are appended in Tables 12 to21.

Pakistan Automotive Parts Industry

Through indigenous technical resources and technical tie-ups with well-known global companies, the auto parts industry has by and large developed into a well-organized sector of the country. There are 500 units in formal and 1600 units in informal sector in the auto parts industry. In the formal sector most of them are registered vendors to assemblers/OEMs. Many of these are bound to supply only to OEMs as per their agreements, but due to low demand by the assemblers, they are forced to sell their products in the replacement market in one or the other way.

These units efficiently manufacture sophisticated parts like piston, engine valves, gaskets, camshafts, shock absorbers, struts, steering mechanism, cylinder head, wheel hubs, brake drums, wheel bumpers, instruments and instrument panel, gear of all types, radiators, cylinder liners, blinkers and light/lamps, door locks and auto air conditioners.

Along with the organized sector, a good number of small and large units (approximately 1600) are operating in un-organized sector. In fact, 90% of automotive parts industry constitutes of Small and Medium size Enterprises (SMEs), out of which about 95% are self-financed. These units produce a wide range of parts for the

replacement market. The larger operators in this unorganized sector even manufacture crankshafts (aside from wheel Hubs, brake drums, filters etc.) for replacement market, although not even a single assembler has yet deleted crankshaft because of high accuracy required in metallurgy and machining. However, these dozens of crankshaft manufacturers in the unorganized sector are successfully catering to most of the demand of the replacement market.

The organized sector provides employment to more than 120,000 people whereas unorganized sector employs almost 380,000. Collectively, about 500,000 people get employment from automotive parts industry.

Total investment in the organized sector is about US $50 million. Investment figures for the unorganized sector are not on the record. Major Economic Indicators related to automotive parts manufacturing industry (organized sector) are as follows:

Profile of Auto Parts Industry

Number of units	Approx. 2100 (500 in organized sector, 1600 small scale unorganized and in informal sector)
Employments	About 500,000 people are employed in Auto Parts Industry.
Foreign investment In Auto Industry	US$ 1.50 billion
Local investment In Auto Industry	US$ 1.00 billion
Investment	Total investment in organized sector is about $50 million.
Production	Automotive parts $US 282 m
Import	Automotive parts $US 83.54 m
Export	Automotive parts $US 30m
Consumption	Automotive parts: $US 850 m
Contribution	Locally manufactured parts: 78% Imported parts: 22%

Significance of the Auto Parts Industry in the Economy

a. Import substitution $ US 699 million

b. Foreign exchange savings $ US 279 million

c. Contribution to GDP $ US383.33 million

d. Contribution to national exchequer Rs 8 Billion

e. Import of automotive parts $US 83.54 m

Present Capacity of Auto Parts Industry in Pakistan

The estimated capacity of auto parts manufacturing industry is to produce parts amounting to $850m per annum. Of the total capacity, only an estimated 40% of the capacity is being utilized. The main reasons for this low capacity utilization are low production at the end of the assemblers and less demand in the replacement market.

Production of Auto Parts Industry in Pakistan

The figures for auto parts production are not available even at Pakistan's Association for Automotive Parts And Accessories (PAAPAM). However, according to Chamber Circular dated December 2000,the local manufacture of auto parts is estimated at a value of $US 282 million per annum. Auto Parts for buses, trucks, and motorcycles being manufactured in Pakistan are listed in appendixes 2 to 4.

Characteristics of Production Process in Auto Parts Industry in Pakistan

Localization/Deletion Process

The volume of production in the automotive industry in Pakistan is itself not big enough to in turn create economies of scale in production of auto parts. Consequently, as far as the level of localization of parts is concerned, the major part of this process is confined to production of small parts while the high tech and major engineering parts have not been developed much. However, in spite of low volumes, the auto parts industry's local content in the small car is over 60% while it has achieved 40% deletion rate in larger vehicles. The automotive industry is paying huge amount to the local vendors for the development of parts. Thus the contribution of vending industry in this regard is indeed worthwhile. So far, among the three major players, Indus Motors is producing about 740 parts locally with deletion level of 42.10%, Pak Suzuki is producing approximately 1794 parts with the highest deletion level of 66% while Honda Atlas Cars has localized about 699 parts with 42.40% deletion level.

Unorganized Sector

In the unorganized sector, no specific quality standards are followed. The main concentration is to reduce cost in order to cater to the price-conscious replacement market. Physical appearance and good fit are the criteria of quality inspection in the market. Such parts are manufactured under outdated production processes in small industrial units. In fact parts imported from China, Taiwan etc. are preferred to those locally produced by these units, on the basis of both price competitiveness and better quality. For this reason, the imported parts have a good penetration in Pakistan's auto parts markets.

Organized Sector

The organized sector units are quite quality conscious. Most of these units are vendors to the local assemblers, and so they have to maintain precision in the quality of their parts. As a result, these units have well defined quality systems. They apply updated production and quality control theories like Quality Circles, 5-S theory, QCD Theory etc. A considerable number of these units are ISO 9002 certified. As they have to follow the

design and specifications provided by the assemblers, very few of them are having in-house design centers, thus 9001 certification is rare in this sector. The drawing and technical specimen of the parts are provided by the assembler. The vendor has to adhere to these specimens and dimensions. Similarly, the relative material standards are provided on the drawing or technical specimen sheets. Mostly, the standards of the parent country are followed, for example Japanese Standards FCD 34, FCD 40, FCD 50, FCD 60; British Standards 400/18, 420/12, 450/10, 500/7, 600/3; and German Standards GGG 38, GGG 45, GGG50, GGG 60 are followed in case of cast iron products manufactured by these units. The approval of regular deliveries of auto parts is subject to thorough inspection at the assembler's premises. Every consignment is bound to be accompanied by a complete quality assurance report made by the Quality Assurance Department/Lab of the vendor. The newly developed parts are sent to the parent company in Japan or other country for approval. Sometimes the pilot lots are also directed there if the part is vital and complicated. The assemblers have to allocate a reasonable budget for vendor development activities. These activities include the development of new parts and the establishment of quality systems at vendor side.

Product Characteristics

As the production of automotive vehicles is based on foreign joint ventures of Japanese, Korean and European origin, the product quality is of international standard. As the major automobile companies in Pakistan have been set up as joint ventures with foreign multinational companies. Details of Major collaborations and joint ventures are listed at appendix 6.The quality standards being followed are mainly:

a. Japan Industrial Standards (JIS).

b. Society of Automotive Engineers, United States, (SAE).

c. International Standards Organization (ISO).

Vehicle Export and Import:

Pakistan does not qualify as a major exporter of vehicles. Its exports are limited to tractors and a few thousand motorcycles. However, the export of vehicle parts is registering continuous growth over the last few years. The local manufacturer of original equipment manufacture (OEM) parts has encouraged Pakistani vendors to enter the export market. Vehicle-part exports were approximately US$30 million in FY-2003. Exporting destinations including Europe, Australia, Indonesia, Japan, Sri Lanka, Iran, and the Gulf States has enhanced the credibility of Pakistan vehicle parts manufacturers (auto Mar)

Deletion Level Achieved by the Local Assemblers

The achievement of deletion targets by the car assemblers is quite slow. Engineering Development Board (EDB) sets the targets for the assemblers, but there is ineffective implementation and monitoring of deletion program by EDB resulting in a lower deletion rate (average of 50 %) in the car industry as compared to 84% in Tractor. If the deletion targets are achieved well in time, the vendors' industry base may be expanded and the existing vendors may have more production.

. Engineering Development Board sets targets of deletion for different brands. Regular monitoring and motivation of assemblers and vendors have resulted in a significant level of deletion in Pakistan's automobile industry, as is obvious from the following figures:

Trucks/buses	43 to 52%
Cars	28 to 69%
Motorcycles	70 to 79%
Tractor	57 to 80%

The most significant feature of this industry is the widespread trend of localization in the industry. For example, Toyota has achieved a 30% deletion rate among all its models of 1300-2000cc Corolla, 18% on its 2400cc Hilux trucks, 30% on its 1500cc and 1600cc models of Civic cars, and 28% on its 1300 City cars.

Deletion level achieved by new entrants in car industry is as under. Company wise details are listed at tables 17 to 21.

Daihatsu Cuore	37.76%
Hyundai Santro	36%
Kia Classic	32%
Hyundai Shahzor (LCV)	28%

Factors Affecting Production Output

Following factors effects production output of Auto Parts industry in Pakistan.

a. **Government Policies**. Like other industries, the development of automobile industry too depends on consistent government policies. Any sudden change in the official priorities certainly affects the long-term investment patterns. Inconsistent government policies and uncertain decisions not only discourage the foreign investment but also create insecurity among local manufacturers. The uncertain policies also affect the development of local industry in many ways. In last 10 years the auto industry has experienced numerous policy changes and imposition of duty tariffs, although the industry got due support from the establishment of Engineering Development Board. However, the volume of production remains very low due to the adverse political and economic situation of the country. A consistent policy should be declared by the Government for at least 7-10 years in order to make the local auto parts manufacturers more focused and more certain.

b. **Custom duties.** Higher custom duties on Completely Knocked Down (CKD) and Completely Built Unit (CBU) vehicles provide protection to both automobile industry and the auto parts industry. Such duties must be maintained. Details custom duty on import of cars is given at table 22.

c. **Import of Reconditioned Vehicles.** Import of reconditioned vehicles is a great threat to local automobile industry and the auto parts manufacturers, and so on the insistence of local assemblers that such imports were killing the local

industry a ban was imposed on import of used cars in February 1994. That decision has provided the local assemblers a good opportunity to grab the market wholly. As such import is allowed again, so the entire automotive industry would once again be in a pathetic condition.

d. **Taxation Policies.** The government's taxation policy is also in question. Along with other taxes, the customer also has to pay CVT (Capital Value Tax) which puts extra burden on him. According to the government policy, a non-tax-payer planning to buy a car of up to 800cc has to pay 2.5% while tax-payers or those in possession of NTN are exempted from this tax in this category. Vehicles of up to 1000cc are subjected to 7.5% CVT for non-tax-payer while tax-payers are exempted from this tax. Vehicles falling between 1000cc and 1300cc are subjected to 10% CVT in case of non-tax-payers and 2% for tax-payers. A 12.5% CVT is to be paid in case of non-tax-payers and 4% in case of tax-payers in the 1300cc-1600cc cars category whereas for vehicles above 1600cc, the CVT is fixed at 15% for non-tax-payers and 6% for tax-payers.

e. **Capacity Utilization.** Due to under-utilization of assembly plants, the auto part manufacturing plants are in turn not able to utilize their capacities. The vending industry, which comprises of 500 units in formal sector , is operating at just 40% of its capacity.

f. **Multiple Vendors.** Often the assemblers develop multiple vendors for a single part in order to save themselves from delayed deliveries. This however reduces the order of each vendor leading to lower production and resultant reduced profit margins at his end.

g. **Replacement Market and Vendors.** Most of the vendors are bound not to sell the parts to the replacement market. As the assemblers bear the heavy costs of development of parts, they make agreements with the assemblers that the parts are supplied only to vendors and cannot be sold by the latter to the after-market. If such restrictions are removed, vendors would have a very huge replacement market available to them allowing them to achieve their production capacities.

h. **Inspection and Monitoring Process.** Delays in inspection and approval of parts by the parent companies of local vendors are discouraging. The prototype sample, first finished sample and the pilot lots are required to be sent to Japan or Korea for thorough inspection and quality assurance by the parent companies. This process sometimes takes months to complete.

Imports of Auto Parts in Pakistan.

Potential for imports of automotive parts in Pakistan is bright .However following *factors are affecting auto parts imports.*

a. Speedy introduction of new models by all the assemblers and their ready acceptability by the customers somewhat slows down the import of auto parts of older vehicles. The recent trend of buying new models and elimination of the old vehicles may further squeeze the demand for such parts.

b. The rapid currency devaluation is a major source of increase in cost of imported auto parts. This reduced the competitiveness of the auto parts importer against the local auto parts manufacturer.

C, Import of second hand/used parts can pose a major threat to local auto parts manufacturers. Presently, the import of used parts is banned.

d. The higher rate of regulatory duty has had a major negative effect on the import of auto parts, although it has been gradually decreased over the years, from 35% to 20% within the last three years.

Auto Parts Industry Under WTO.

With the introduction of WTO regime, the auto parts industry in Pakistan is obviously going to experience changes. The import of auto parts is likely to flourish due to lowering of import duties under WTO. A second factor which will also strongly contribute to a sharp increase in auto parts import, will be the lifting of ban on import of different items including auto parts from India Currently, India's auto parts manufacturing industry is able to satisfy the auto parts requirements of Pakistan's replacement market (both cost- and quality-wise) to a great extent, but Pakistani importers import Indian auto parts from third party sources rather than directly due to the existence of such a ban. If the ban is lifted, the volume and direction of imports will definitely be changed.

Exports of Auto Parts

Only 40 out of 500 organized auto parts manufacturers are engaged in export. The export of auto parts is a new initiative and the export volume is increasing with a tremendous rate. The export of auto parts reflects the conformation of locally manufactured auto parts with international standards. Therefore, strong potential exists for export of auto parts. Pakistan's export of Auto Parts is around US $ 30m.

PAPPAM members with full support of Export Promotion Bureau have participated in international exhibitions in Frankfurt, Dusseldorf, Taiwan, Jakarta, Poland, Los Angeles and Tehran. As a result, orders from Germany, Indonesia, Iran and USA have been received by the exhibitors. PAAPAM also participated in Indian Auto Expo Exhibitions two times and participated in Imtex one time. PAAPAM also organized Exhibitions in Pakistan, one in Islamabad in 1995 , the 2nd in Lahore in 1997 and 3rd in Karachi in 2000. . Due to organization of Exhibitions, our export of automobile components increased manifold.

Market Prospects for Auto Parts

Currently, the auto part manufacturing industry is under-utilizing its existent capacity and therefore, aside from a few companies, overall the industry is not undertaking extensive plans for expansion. On the other hand, given the projection of high growth rate in the automotive industry, it is reasonable to expect that the auto parts industry will grow in tandem. This may not only lead to greater utilization of existent capacity in the auto parts industry, but possibly also to an expansion in the capacity. For the 10% of the companies in the auto parts industry who are currently engaged in exports because their products comply with international standards, it is possible to see potential for a further increase in their exports. The import of auto parts , which cannot be

produced locally or the local production of them does not meet the expected standards is projected to increase dramatically after full implementation of WTO when:

a. Import duty on up parts will be lowered or eliminated.

b. Direct imports of auto parts from India will replace the current practice of Indian imports through third party sources.

Lastly, it is important to highlight that the atmosphere of political uncertainty domestically and internationally, introduces the element of uncertainty in the projections too. This can be underscored by the post-9/11 situation that led to an almost complete shut down of production in the automotive industry that in turn forced the auto parts industry to halt its production.

Prices and Margins

The prices of locally manufactured automotive vehicles are generally less than the landed cost of imported vehicles. But these are higher than the CIF values of imported vehicles. That is one of the major reasons why the automotive industry in Pakistan has not been able to make a breakthrough in the foreign markets. In the domestic market however, the profit margins are estimated at 10 per cent to 20 per cent of return on equity (ROE) depending on the brands, manufacturing companies and consumer preference, etc.

Plans for Expansion of Existing Auto Parts Manufacturing Units

At an average, auto parts manufacturing industry is utilizing 40% of the existing capacity. In these circumstances, the plans for expansion are rare. However, certain plants like Baluchistan Wheels Ltd. (the only manufacturers of wheel rims of heavy vehicles in the country), Malik Auto & Agri. Industries (Pvt) Ltd. (the largest suppliers of "Guard" brand filters -Oil, Air and Fuel- to OEMs and after-market) and Transmission Engineering Ltd. (manufacturers of high precision transmission parts) undertake Continuous expansion to cater to the demand of OEMs in both the local and export markets. EDB is authorized to penalize in situations where deletion targets have not been met, but it has never really exercised this authority.

Unethical Practices.

For some reasons auto parts attract the unscrupulous the most, and in Pakistan we have rampant under invoicing, and smuggling. In fact no auto part imported other than by an OEM or by a recognized vendor is at its real price. A shock absorber and strut gets imported at less than a dollar, the raw material of which alone costs many dollars. It is estimated that the current spares market size is Rs 25 billion, of which only 11 - 12% is met by the local industry. The balance is brought in the country, one way or the other. This deprives the vendors a very sizeable market and deprives the government of their rightful dues. Even a reduction of 25% in this field would improve the government revenues manifold as well as prompt the industry to make investments. Both fiscal and administrative matters are needed here to ameliorate the situation in favour of the national exchequer and the industry.

Education and Training.

Thinking professionals are needed. Our education system needs to be tuned to producing 'developed brains' not exam passers. Good professionals are difficult to come by especially because of the brain drain from our country. Those few still around are in constant mobility due to great demand. Vocational training institutes, polytechnics need a fresh look at their syllabi, teaching materials, teaching methods and the faculty. The automotive industry has already helped establish some training centers and could be easily prodded to do more.

Anti Dumping Laws.

The laws come into force only after one has been hurt, even fatally! They have to be brought into play before calamity strikes. We are after all small players and trying to play catch up. Here an industry friendly approach is needed.

Roll Back Fear.

Localization in Pakistan has not happened by itself. The OEMs have had to be prodded and pushed, time and again by EDB for meeting deletion targets. The fear the vendors have is that OEMs will withdraw orders where they may be legitimately more expensive (in due course of time local costs do come down generally, with volume increase, rupee depreciation and OEMs intransigence). As high tariffs are being proposed, by way of a deterrent, for local manufactured parts, OEMs will be within their right to do so. If a penalty neutral tariff was adopted then the OEMs would have been bound not to withdraw any order. To be competitive in the current scenario, vendors will have to revisit their cost and structure.

It is suggested that OEMs should work with the uneconomical vendors to help them reduce the cost; a short-term pain may lead to eventual gain for them and Pakistan. It is also suggested that vendors be helped by the OEMs to enter into technology agreements with the suppliers to their Principals, as this is likely to eschew roll back on one hand and reduce cost in the medium term.

We are short on Technology, which is often confused with being technical. As more TAAs are signed up with different vendors the whole environment in the industry will get charged creating its own dynamics. In 1998 Malaysia paid $2392 m as Technical fees, and Pakistan only $7 m. we have a long long way to go.

Interest Rates.

The interest rates are increasing, pushing the leasing rates up. This will certainly curtail the booking of vehicles if over 11 - 12 %. The good days could end soon, unless matters are put right by the government. It is perceived that inflation is cost pushed in our country, not demand driven. Higher interest rates will curtail the effectiveness of the middle class and in fact the strata itself will shrink.

CHAPTER- IV

DATA ANALYSIS, SUMMERY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Data Analysis

Table 1 Distribution of employment by enterprise size:

Industry and market services (percentage)

Country	**Year**	**Very Small** (1-19)	**Small** (20-99)	**Total Small** (1-99)	**Medium** (100-499)	**Large** (500+)	**Total**
Australia	1992	36.6	22.6	59.2	40.8	n/a	100
Belgium	1991	25.2	20.8	46.0	19.1	34.9	100
Canada	1991	27.2	22.3	49.5	15.9	34.6	100
Denmark	1991	38.4	23.0	61.4	17.6	21.0	100
Finland	1989	26.3	18.0	44.3	17.1	38.6	100
France	1990	29.1	21.0	50.1	16.2	33.7	100
Germany	1990	25.9	18.7	44.6	18.2	37.2	100
Italy	1988	58.2	13.2	71.4	9.9	18.7	100
Japan	1992	36.4	17.7	54.1	18.3	27.6	100
Luxembourg	1991	25.3	24.7	50.0	26.6	23.4	100
Portugal	1991	34.6	25.0	59.5	19.5	21.0	100
Spain	1991	42.4	23.0	65.4	14.5	20.0	100
Sweden	1988	24.4	n/a	n/a	n/a	n/a	100
Switzerland	1991	32.5	22.0	54.5	20.1	25.4	100
United Kingdom	1991	33.0[1]	16.1	49.1	17.2	33.8	100
United States	1991	24.6	18.8	43.4	13.5	43.1	100
Source: OECD: *Employment Outlook*, 1994							

Data in the above table shows that small and medium-sized enterprises are major contributors to private sector employment in the industrialized countries. SMEs employment in these countries is between 57 per cent in United States and 81 per cent in Italy of employment in industry and market services combined. The share of small enterprises alone ranges from 44 per cent in Canada to 71 per cent in Italy.

Table 2 Distribution of Enterprises and Employment by Sector in the European Union (12 countries)

Sector	**Number of enterprises** (thousands)	**Micro 0-9 employees** (%)	**Small 10-99 employees** (%)	**Medium 100-499 employees** (%)	**Large 500+ employees** (%)	**Total employment** (millions)
Extraction	150	7	17	15	61	4.3
Manufacturing	1750	15	28	21	37	27.4
Construction	1890	44	34	11	10	8.8
Wholesale trade	1510	34	35	22	9	7.6
Retail trade	3530	58	20	9	14	12.1
Transport/ communication	910	19	16	9	56	7.1
Producer services	1830	28	20	15	37	11.3
Personal services	4210	49	23	13	15	15.8
Total	15780	32	25	15	28	94.6
Source: ENSR: *The European observatory for SMEs* (Zoetermeer, Netherlands.1994.						

Data of employment of EU countries shows that micro-enterprises accounted for 31.8 per cent of total employment in private enterprises outside the agricultural sector, small enterprises for 24.9 per cent and medium-scale enterprises for 15.1 per cent.

Table 3 Percentage distribution of employment and value added in the manufacturing industry in Germany, France and Italy, 1987

Size and class of enterprise	**Employment**			**Value added**		
	Germany	*France*	*Italy*	*Germany*	*France*	*Italy*
Small (20-99)	14.6	23.6	33.7	12.1		
Medium (100-499)	24.8	26.4	28.5	22.6		
Large (500+)	60.1	50.0	37.7	64.8		
Total	100	100	100	100		
Source: EUROSTAT: *Structure and activity of industry, 1985/1986 and 1986/1987* (Brussels, 1989 and 1990).						

Data in above table shows that small and medium-sized enterprises are important players in manufacturing activities, even in countries with advanced industrial sectors.

Table 4 APEC Members' Workforce in Small and Medium-sized Enterprises.

Country/Area	Workforce percentage	Country/Area	Workforce percentage
Australia	39.6	Mexico	50.8
Brunei Darussalam	69.4	New Zealand	-
Canada	59.2	Philippines	32.0
China	84.3	Singapore	44.0
Hong Kong	63.0	Thailand	73.8
Indonesia	79.2	United States	53.7
Korea, Republic of	78.5	Taiwan	68.6
Malaysia	-		
Source: APEC, cited in "Small, medium-sized firms reveal major differences", *Bangkok Post*, 27 October 1994.			

APEC countries data shows that percentage of the workforce in SMEs varied from 32 per cent in the Philippines to 84 per cent in China. In Latin America, it is 36 per cent in Colombia and 79 per cent in Brazil of non-agricultural employment. For Africa 61 per cent of the labour force outside agriculture is employed in micro-enterprises and 21 per cent in the modern sector, including private enterprises and the public sector.

Table 5 Definition of SMEs According to the number of Workers Employed in Selected Developing Countries.

Country	Small-sized Enterprises	Medium-sized Enterprises
Bangladesh	<50 workers	51-200 workers
Lebanon	5-8 workers	10-30 workers
Pakistan	1-9 workers	10-300 workers
Syria	1-40 workers	40-200 workers

There are wide differences in the definition of SMEs using as indicators the number of employees, amount of invested capital, total assets and turnover and production capacity in different countries. For Mauritius an SME is defined as a manufacturing firm, which uses assets not exceeding the equivalent of US$ 280,000.

Table 6 Employment of the Labour Force by Sectors of Economy in Pakistan (Millions)

Sector	1994-96	1996-97 (Estimated)
Agriculture	15.56	16.45
Mining and manufacturing	3.49	3.69
Construction	2.40	2.53
Trade	4.82	5.10
Transport	1.69	1.78
Community and social services	4.75	5.02
Others	0.55	0.58
Total	**33.26**	**35.15**

The data for workforce in different sectors of economy given in the above table indicates that bulk of the industrial labour force is employed by the SMEs sector. Out of the total estimated population of 135.28 million in Pakistan (1996), approximately 90.04 were of the working age. Of the country's total labour force estimated at 37.15 million, 35.15 million workers were employed. The labour force participation rate was calculated at 27.46%. As an agro-based economy, agriculture in Pakistan employed 16.45 million workers, who constitute 46.8% of the total employed labour force of the country.

Table -7 Yearly Employment Data in Different Manufacturing Industries in Pakistan (1984-91)

Industry	1984-85	1985-86	1986-87	1987-88	1990-91
Food	64,000	66,000	69,000	67,000	84,000
Beverages	5,000	6,000	5,000	6,000	5,000
Tobacco	10,000	10,000	9,000	9,000	6,000
Textiles	175,000	177,000	168,000	171,000	238,000
Wearing Apparels	7,000	9,000	12,000	12,000	20,000
Leather and Products	6,000	7,000	11,000	12,000	15,000
Ginning, pressing and bailing of cotton	14,000	11,000	10,000	10,000	10,000
Wood and products	2,000	3,000	3,000	3,000	3,000
Furniture and fixture	2,000	1,000	2,000	2,000	2,000
Paper and products	8,000	8,000	7,000	9,000	8,000
Printing and publishing	8,000	9,000	11,000	12,000	8,000

Drugs and pharmaceutical Products	15,000	15,000	14,000	15,000	18,000
Industrial chemicals	17,000	19,000	17,000	16,000	18,000
Other chemical products	8,000	10,000	13,000	11,000	9,000
Petroleum refining	3,000	3,000	3,000	2,000	2,000
Petroleum and coal products	1,000	1,000	1,000	1,000	2,000
Rubber products	10,000	11,000	7,000	8,000	8,000
Plastic products	4,000	4,000	5,000	4,000	5,000
Non-metallic mineral products	23,000	25,000	27,000	28,000	28,000
Iron and steel basic industries	40,000	43,000	42,000	39,000	44,000
Fabricated metal products	9,000	9,000	9,000	9,000	12,000
Non-electrical machinery	18,000	19,000	19,000	19,000	25,000
Electrical machinery	18,000	17,000	19,000	20,000	19,000
Transport equipment	19,000	17,000	21,000	23,000	19,000
Measuring, photographic and optical goods	3,000	3,000	3,000	3,000	4,000
Sports and athletic goods	1,000	1,000	2,000	1,000	8,000
Others	2,000	3,000	2,000	3,000	2,000
Total	493,000	507,000	532,000	515,000	622,000

It is clear from the above table that bulk of the industrial workforce in Pakistan is employed in textile sector. The other major industries in terms of employment are food, leather and products, ginning of cotton, drugs and pharmaceuticals, iron and steel, industrial chemicals, non-electrical and electrical machinery manufacture of transport equipment, and manufacture of fabricated metal products.

Table 8 Pattern of Industry and Employment in Lebanon,

Type of Industry	Number of enterprises	Number of workers
Food products and beverages	4.456	30.669
Tobacco products	10	2.007
Textiles	604	4.618
Wearing apparel	3.004	17.820
Leather and products	843	6.044
Wood and woodwork	1.453	6.268
Pulp, paper and paper products	213	3.814
Printed matter, recording media	408	3.931
Coke, refined petroleum products	20	906
Chemical products and MMF	245	2.984
Rubber and plastic products	399	3.192
Other non-metallic mineral products	1.686	1.3767
Basis metals	253	2.591
Fabricated metal products (excluding machinery and equipment)	3.070	13.124
Machinery and equipment	371	3.241
Electrical machinery and apparatus	285	2.369
Radio, TV and telecommunication equipment	17	92
Medical, precision and optical equipment, watches and clocks	15	81
Motor vehicles, trailers, semi-trailers	333	1.477
Other transport equipment	19	125
Furniture and other manufactured goods	3.659	18.018
TOTAL	21.357	137.100

According to Data of above table 137,000 workers in Lebanon are employed by over 21,000 enterprises. The majority of these enterprises are small-scale, with 88% employing 10 or fewer workers. The leading manufacturing industries are those dealing with food products and beverages, furniture, fabricated metal products, wearing apparel, wood and wood products, leather and leather products, textile, printing, rubber and plastics.

Table 9 Pattern of Industry and Employment in Mauritius.

Type of Industry	Number of units	Number of workers
Food products and beverages	431	9138
Wearing apparel	52	9592
Tanning/dressing of leather	101	2263
Wood and wood products	69	696
Paper and paper products	26	734
Rubber and plastic products	105	1890
Printing and publishing	211	2498
Manufacture of chemicals	90	1550
Rubber and plastic products	105	1890
Furniture making	688	2624
Total	1.773	31.785

As per the above table, majority of the employed workforce in Mauritius was in SME sector.

Table 10 Distribution of SMEs in Syria by sector, their number and labour Force.

Sector	Number of SMEs	Labour force
Agriculture/animal husbandry	13.182	924.274
Manufacturing industry	49.000	46.6250
Services	19.644	77.628
Transport, communication, electricity	4.438	65.277
Mines and quarries	424	6.243
Construction	12.187	87.321
Total	98.875	1.626.993

The pattern of employment in different industries given in above Table shows that SMEs sector, employed majority of the workforce force in Syria.

Table 11 Number of Enterprises and Workers covered by the ILO Study.

Country	Number of SMEs included in the study	Number of Workers employed in the SMEs, included in the study
Bangladesh	241 (205 small and 36 medium-sized)	8185
Lebanon	14	126
Mauritius	5	213
Pakistan	60 (31 small and 29 medium-sized	2935
Syria	5 (4 small and 1 medium-sized)	75

Above data of the study indicates that SMEs in the developing countries provide jobs to majority of the workforce.

Table 12 Pakistan Auto Industry Employment, Investment, Share in GDP, Saving In FE and manufacturing capacity of Pak Auto Industry.

Pakistan Auto Industry			
	Assembler		Vendors
Units	No of Units	Capacity in Units	Organized Sector: 500 Informal Sector: 1600
Cars	6	164,000	
LCVs	6	32,500	
Buses	5	3,900	
Trucks	5	17,500	
Tractors	3	50,000	
2/3 Wheelers	22	733,000	
Total	47		
Employment	11,000		160,000
Investment	Rs. 26.5 B / $ 0.46 B		Rs. 72 B / $ 1.25 B
Contribution to GDP (03-04)	Rs. 129.08 B / $ 2.24 B		Rs. 24.81 B / $ 0.43 B
Contribution to Revenue (03-04)	Rs. 43.5 B / $ 0.75 B		Rs. 8 B / $ 0.14 B
Foreign Exchange Saving (03-04)	Rs. 60.99 B / $ 1.06 B		Rs. 11.25 B / $ 0.195 B

Above table shows that share of automobile vendor industry in Pakistan economy is significance. It provides employment to over 160,000 persons in formal sector.

Contribution to revenue by automobile vendor industry is over Rs 8 billion. It also saves significant amount of foreign exchange by import substitution.

Table 13. Installed Capacity and Manufacturing of Automobiles in Pakistan.

INSTALLED CAPACITY & PRODUCTION OF VEHICLES / AUTOMOTIVES							
2004-05	Installed Capacity	**1999-2000**	**2000**-2001	**2001-2002**	**2002-2003**	**2003-2004**	**2004-2005**
CARS	164,000	32,461	39,573	**41233**	**63,095**	**98,461**	**126,403**
LCVs	32,500	7,036	7,424	**9,055**	**12,548**	**14,896**	**25,177**
Buses	3,900	1,460	1,326	**1,088**	**1,296**	1,380	**1,762**
Trucks	17,500	913	912	**1,134**	**1,929**	2,022	**3,204**
Tractors	50.000	34,599	31,635	**23,801**	**26,240**	35,770	43,200
Motorcycles	733,000	86,000	108,850	**120,627**	**165,105**	360,000	**450,000**
6 Major Players only							
Total production of Motorcycles in the Country including new entrants from China.							

Pakistan auto industry has shown significant growth in production capacity over the last five years. However, as demand is increasing and installed capacity is short by 30,000-40,000 vehicles per year. Hence, there is great potential in Pakistan's auto industry for expansion of its local vender industries and attracting FDI and local investment in the coming years.

Table14. Deletion Level Achieved by Pakistan Automobile Industry .

Deletion Level - Auto Industry					
Automobiles	**Cars**	Buses	**Trucks**	Tractors	**Motorcycles**
Jun05	**62-71 %**	42.5%-52%	43-68%	53-85%	**84-90%**

Table 15 Deletion Level Achieved by Car Industry

Category	1995-96	1996-97	1997-98	1998-99	1999-00
Up to 800cc	60%	64%	66%	67%	69%
Above 800 up to 1200cc	41%	42%	45%	48%	51%
Above 1200cc	30%	34%	38%	42%	46%

(Source: Expert Advisory Cell Survey of Industrial Sectors 2005)

Table 16 Deletion Level Achieved by New Entrants in Car Industry

Model	Deletion Level
Daihatsu Cuore	37.76%
Hyundai Santro	36%
Kia Classic	32%
Hyundai Shahzor (LCV)	28%

(Source: Expert Advisory Cell Survey of Industrial Sectors 2005)

Table 17 Company-Wise Deletion And Number Of Parts Localized In Car Industry

Name of the Industry	Total vendors	Total technical collaborations	Deletion Status	No. of parts localized
Daihatsu Cuore	61	13	42.10%	740
Pak Suzuki	180	15	66.00%	1,794
Honda Atlas Cars	59	17	42 40%	699

(Source: PAAPAM Directory 2005)

Table 18 Deletion Level Achieved by Motorcycle Industry

Category	1996-97	1997-98	1998-99	1999-00
Up to 100cc	68.8%	73%	76%	79%
Above 100cc up to 175cc	62%	66%	68%	70%

(Source: Expert Advisory Cell Survey of Industrial Sectors 2000)

Table 19 Deletion Level Achieved by Tractor Industry

Category	1997-98	1998-99	1999-00
Above 40 up to 55HP	81%	81.5%	82%
Above 55 up to 80HP (2x2)	52.5%	54.5%	56.5%

(Source: Expert Advisory Cell Survey of Industrial Sectors 2000)

Table 20 Deletion Level Achieved by Truck/Bus Industry

Category	1998-99	1999-00
Above 8 tons(4x2)	51%	52%
8 to 30 tons (6x2)	49%	50%
Up to 30 tons (6x4)	42.7%	42.5%

(Source: Expert Advisory Cell Survey of Industrial Sectors 2000).

The data in Tables14- 20 shows that achievement of deletion targets by the automobile assemblers particular cars is quite slow. Engineering Development Board (EDB) sets the targets for the assemblers, but there is ineffective implementation and monitoring of deletion program by EDB resulting in a lower deletion rate (average of 50) in the car industry as compared to 82% in Tractor. If the deletion targets are achieved well in time, the vendors' industry base may be expanded and the existing vendors may have more production and make investments in expansion plans.

Table 21. Import Tariff on Pakistan's Car industry.

CARS			
Import Tariffs for Pakistan's Car Industry			
2005-06 Budget			
1. Raw Materials			5%
2. Raw Materials			10%
3. Components for sub-assemblies & Assemblies			20%
4. CKD Kits (SRO 453(1)2004)			
Cars up to 1600 cc			35%
Diesel Cars			35%
5. CBU – Completely Built Units			
Up to 1300 cc	50%		
1300 to 1600 cc	70%	Up to 1500 CC	50%
1600 to 1800 cc	80%	1501 to 1800 CC	65%
Above 1800 cc	100%	Above 1800 CC	75%

Maintenance of high tariffs on cars export is needed for the production of local car industry and employment in automobile vendor industry in formal and informal sector.

Table 22. Investment Plans in Auto Sector.

Investment Plans in Auto Sector		
Cars	Billion RS	US$
Indus Motor Co	4	
New Assemblers & Vendors	4	
Current Vendors	10.2	
Sub Total	18.2	$307m
OTHERS		
HINO PAK (Trucks & Buses)	07	FY o6-o7
Yamaha (Motorcycle)	.06	FY 05-06
Suzuki (Motorcycle)	.2	FY05-06
Sub Total	1.5	$ 25m
Total	19.7	Approx. $332m

Ban on export of cars is needed to achieve investment targets and maintain existing trends in automobile sector in Pakistan. Free export of cars under different schemes will hurt local industry and there may be job losses in assembly plants and in vendors' sector.

SUMMERY OF FINDINGS

Governments and development experts recognize the SMEs sector as an engine of economic growth and a major factor in promoting private sector development and entrepreneurship. In today's technologically driven global economy, in which the quest for innovation has taken the center stage of all human drive for technological progress and well being, the development of SMEs has become the prime element in the growth strategy of national economies. The Small Medium Enterprises have played a key role in development of economies like Japan. It has also been playing key role in providing impetus to the development of some of the world's best economies like Taiwan, Korea, Hong Kong. China and Malaysia. Countries in South America and India have also been concentrating their efforts in developing the SMEs sector. Pakistan in not an exception to this development concept.

Pakistan's economy is an economy of SMEs. Policies in the past have given a general perspective, direction and defining broad parameters of activity within the macroeconomic framework, but efforts have focused on the large enterprises, neglecting SME, which are at the heart of our economy. Our SMEs suffer from a variety of weaknesses, which have constrained their ability to adjust to the economic liberalization measures introduced and to take full advantage of rapidly expanding markets of the world. But SMEs importance and contribution in the economic activity suggests that there is a significant potential to enhance their growth through appropriate regulations and promotion. While SMEs are being mentioned in some of our socio-economic strategies and policy documents, measures are not sufficiently specified and prioritized for us to be able to speak of any coherent SMEs policy or approach. The SME Sector Development Program seeks to improve this situation by inviting all concerned stakeholders to draft Pakistan's future SMEs policy. SMEs promotion is an important issue for many government departments and central offices. However, there is an existing lack of coordination and regular information exchange mechanism among institutions, which constrains their collective ability to deliver in the SMEs development process. The responsibility for facilitating SME policy development lies with SMEDA, attached to the Ministry of Industry and Production. One of the major reasons for the lack of coordination is that SMEDA has not been provided with a mechanism to initiate, coordinate, monitor, and evaluate initiatives of SMEs development outside of its own scope of activities. Therefore, cross-departmental and stakeholder consultations, resulting in the preparation of our national SMEs policy are our key to success. A network of institutions stimulating the growth of SMEs is also being proposed. The issues highlighted in this paper give a retrospective view of things while giving a current picture of the SMEs business environment in Pakistan. There are issues we may only solve in the long term and which therefore are beyond our current scope. And there are issues we may solve in the short to medium term. These issues should become the focus of our SMEs policy.

Business Environment

Creating a favorable business environment for SMEs in Pakistan's economy and eliminating unnecessary obstacles, which obstruct their development. This concerns the relationship between Government and SMEs as well as specifically taxation and labour. Delivery of assistance and access to resources, improving the delivery mechanisms for assistance and the access to resources for SMEs in Pakistan, *inter alia* finance, business development services, qualified human resources, and technology, so as to improve their

productivity and capacity for employment generation. Market driven support programs are important to attain sustainability, maximize the potential for cooperation with the private sector, and minimize distortions in the economy. Yet the structures for such a system still need to be mutually agreed and implemented in Pakistan.

Monitoring Developments

Harmonizing enterprise size categories for Pakistan of what are to be considered micro, small, medium, and large enterprises. Furthermore, the establishment of a sound mechanism by which development of the SMEs sector and the effectiveness of the assistance provided to SME can be monitored. What is at stake is that we forego the benefits of learning from one another in order to continuously improve our support structures to meet the needs of the target group, SMEs. There is also ample scope to make use of SME promotion channels to achieve major aims related to equitable and sustainable socioeconomic development, which we have not yet fully exploited. Cases in point are gender development and environmental issues. Implementing change requires the formulation of a policy for SMEs development and assigning specific responsibilities for its implementation and continuous improvement. A fair number of countries have opted for legislation on SMEs promotion.

Pakistan Automobile Vendor Industry.

Typically, creating a balance of import substitution, export-based and strategic industries has been a focus for policy makers. A successful combination strengthens the economy. The export industries provide the necessary cushion in the country's reserves. Import substitution industry saves foreign exchange while strategic industries create employment, transfer technology and generate much needed value addition. Being a mother industry, automotive industry support many industries by creating industrial linkages, networking, industrial district and attracting FDI. Since the trickle-down economic effects of the industry, through the creation of small and medium size enterprises (SMEs), are so beneficial that most countries have strived hard to attract foreign direct investment from established automotive industries around the world.

Pakistan automotive Industry is fairly large and is a strategic industry. it provides the technology and skills, which spill over to sensitive industries as well. Auto Industry has been used by many countries to develop their economies and has become the backbone of industrial initiatives. Pakistan is also succeeded in attracting FDI in this sector. The total number of vehicles in Pakistan is over 4.9 million units. Annual demand is estimated at 300,000 units, which is being met from local sources and imports. Total imports are valued at US$300 million. The local production of after market vehicle parts and accessories is estimated at US$850 million. Five hundred vendors in formal sector and about sixteen hundred in informal sector manufacture vehicle parts and accessories support over dozen vehicle manufacturing and assembly facilities in Pakistan. Only six of these vehicle manufacturers are engaged in the manufacture/assembly of buses and trucks.

Auto industry provides direct and indirect employment. The total employments including OEMs & vendors are over 500,000 persons including technicians, engineers and management staff. Auto parts industry in Pakistan is contributing over Rs 8 billion annually to the national exchequer. Total contribution in revenue is over Rs. 6o billion. It saves

foreign exchange to the range of about US$ 3,304 million by import substitution. The contribution of this industry in our GDP is over Rs. 200 billion. Thus Auto industry in Pakistan has the great potential to generate local investment and opportunities, and can expand its operation to contribute in attracting more foreign direct investment, eradicating poverty and unemployment and in the development of the economy of the country.

CONCLUSION

It is often opined that the large-scale enterprises sector, supported by government policies and pursues, is an important player in rapid growth of industrial development. This research paper indicates that Small Medium Enterprises developed concurrently with Large Enterprises, has played an essential role in the process of industrialization and economic development in both developed countries and economies in transition. Examples of Japan, Taiwan, Korea, Malaysia, OECD and other developed countries show that SMEs promote industrial and economic development through the utilization of local resources; production of varieties of intermediate goods and services and the transfer/transformation of technology. In fact SMEs are regarded as engine of economic growth and provide a breeding ground for entrepreneurs. . Through the demonstration effect, they spawn new enterprises. They are also able to use resources that may otherwise not be drawn into the development process. By encouraging personal savings and the use of the retained savings of firms, they also play an important role in mobilizing and generating domestic savings.

SMEs are at the forefront of technological change and innovation. Their relatively small size enhances their need, as well as their capacity, to adapt to changes. They are condemned to be innovative and competitive in order to develop and to survive. They also need to be entrepreneurial in order to exploit new opportunities or new processes. They thus play an important part in generating green field investments and in expanding existing business activities into new areas.

Pakistan is striving hard to attract foreign direct investment (FDI). SMEs enterprises can play a significant role in driving domestic as well as FDI in the country. SME's represent an important pillar within the supply chain that larger corporations require to operate. Being smaller, SME's are more agile in adapting to economic conditions. SMEs growth facilitates development of industrial districts, clusters, horizontal and vertical networks and promotion of subcontracting and outsourcing.

SMEs have a major impact on the social situation of a country. Because of their dynamism and flexibility, SMEs are crucial for the creation of new employment opportunities. In practically all countries, SMEs provide the majority of jobs while large-scale enterprises tend to shed jobs. Pakistan like most major economies recognizes the critical role of SMEs and has established SMEDA and SME Bank for their development. As a precondition for successful enterprise development, particularly the promotion of SMEs, the government needs to establish the right macroeconomic environment, as well as a transparent, stable and predictable legal, regulatory and tax framework. We can overcome the problems of unemployment and under- employment by the establishment of proper organized and formal SMEs sectors.

Self-reliance instead of self-sufficiency is the bottom line of Pakistan’s industrial policy. Its direction is defined by the twin considerations of import-substitution and export-orientation. Value-addition is a national priority to improve our position on the value chain. That is why more investment is required in technology transfer. Pakistan has been successful in attracting investment in the automotive sector. The presence of over a dozen manufacturers in car, motorcycle, bus, truck and tractor sectors certainly serve as a vote

of confidence. Industry players have generally evaluated the business opportunity on the basis of a large population, an unfulfilled transportation need and the government's desire to create a competitive manufacturing base over the long run.

The auto market is one of the largest segments in world trade. The annual size of automotive export trade in the world has grown to a massive level of over US$ 600 billion, which accounts for about 10 per cent of the world export. Changing models, improving fuel efficiency, cutting costs and enhancing user comfort without compromising quality are the most important challenges of the auto industry in a fast globalizing world. Hence there is a need for exploring the industrial complementarities in our country for better quality, favourable costs, fuel efficiency and attractive designs. Vendor industry may be developed to achieve these objectives. The existing population of automotive vehicles in Pakistan is 4.9 million. The annual demand is estimated at 300,000, two thirds of which is being met from local sources and imports and the remaining one third is left unmet. The market value of automotive vehicles in dollar terms is estimated at more than $2.5 billion, out of which import constitutes around US$ 1000 million. The after market of auto parts is estimated at US$ 850 million, imports and local production taken together.

The requirement of linkage and information exchange amongst assemblers and auto vendors is much more pronounced now than ever before for keeping the auto industry afloat and competitive. The objective should not be only to understand each other's comparative advantage but also to explore mutual complementarities as well as to build an early warning system on the trends in industry and changes in user preference to brace for the challenges confronting the auto industry. Mutual consultation among the vendors and assemblers of the country therefore assumes the proportion of an abiding imperative for capacity-building and preparing the country to meet the requirements of the new economy through research, advisory services, information dissemination and exchange of experiences, besides joint ventures and technology tie-ups. Pakistan cannot achieve true progress without the development of engineering industries. An automobile is a product of assembly of thousands of parts. To develop and manufacturing of e indigenous parts will directly contribute towards self-reliance, progress and prosperity of the people of Pakistan.

.RECOMMENDATIONS

Sustained development of SME sector in any country requires clear and transparent commitment of the government for the development of indigenous SMEs sector that is able to adapt to changing conditions and compete internationally. In order to achieve this following measures are recommended:

a. Improve SMEs competitiveness and regulatory environment

b. Establish simple business registration to facilitate entry into the formal economy it has been proposed to assist the Government in undertaking measures of awareness building and to support the development of simple, cheap, and easy registration processes and business friendly one-stop-shop arrangements to improve the coverage of registration.

C. Improve quality standards for industry and labour. This can be achieved by reducing the abuse of power by inspectors through a non-invasive inspection policy and promotion of self-inspection by the private sector.

d. Enhance export readiness of SMEs through enabling policy measures and an action plan. For this purpose, effective collaboration among SMEDA, Export Promotion Bureau (EPB), and Pakistan Standard and Quality Control Authority (PSQCA) is proposed for the development of a policy and action plan to enhance export readiness of SMEs with the help of these institutions. Therefore, the business plans for SMEDA & EBP be developed so that SMEs are facilitated.

e. Following steps are required for increasing their access to formal financial sources:

i. Establishment of support infrastructure to improve coverage of credit information to facilitate quick and reliable loan processing mechanism Improve access to risk capital by revising tax regulations for risk capital investors

II. Deepen supply and marketing channel financing to small clients of corporate entities through partial credit guarantee.

III. Support commercial banks to develop SMEs dedicated financing capabilities, equity investment products and to invest in capacity building of their staff to deal with the peculiarities of the SME sector.

f. To develop demand for upgrading technical and management skills of SMEs, subsidized training facilities need to be developed, preferably through private sector BDS providers. In addition, cluster specific, demand driven technology common facilities centers should be established to benefit a large no

g. The government policies must be consistent and supportive of business environment in Pakistan.

h. Customs duty on CKD and CBU must be maintained. The taxation policy must be reviewed and CVT must be terminated. Tariff structure on auto motive sector will have to be rationalized in tandem with the requirement of phasing out local content policy under WTO Agreement on TRIMS

j. The import of reconditioned vehicles and old parts must be banned.

k. Assemblers are needed to speed up their deletion achievements. Vendor industry in Pakistan should be supported to upgrade its technologies through joint ventures and technology tie-ups.

l. More transport schemes are needed to enhance automobile industry in Pakistan. The annual target of automobile assembly needs to be enhanced to half a million vehicles. Annual Production target of cars needs to be increased to hundred thousand vehicles. The Government and the automotive sector in Pakistan must cooperate with each other to devise ways to achieve these targets.

m. Consignments scrap parts must be strictly monitored in order to check illegal and disguised import of old parts.

.

n. There is a need to set up a specialized technical training centre to serve as a common facility for capacity building of the automotive sector in Pakistan.

o. Industrial and business exhibitions, expositions and fairs should be made more interactive by making the investors, entrepreneurs, and exporters more effectively participative in these even

p. Government should clarify reports regarding plans to abandon ISDP under pressure from international donor agencies. It is recommended that international pressure should not be accepted by the government, as this would result in closure of vital sector industries such as Auto Industry as well as its supporting vendor industry, causing losses of thousands of jobs as well as colossal loss of government revenue

Appendixes

Appendix 1 **Automobiles being manufactured in Pakistan**

PRODUCT	CATEGORIES	BRAND	MODELS	ASSEMBLERS/MANUFACTURER
Cars	Up to 800cc	Suzuki Daihatsu	800cc Mehran 800cc Dihatsu Cuore	Pak Suzuki Motor Co. Ltd. Indus Motor Company Ltd.
	Above 800cc up to 1200cc	Suzuki Suzuki Hyundai	1000cc Khyber 1000cc Cultus 1000cc Hyundai Santro	Pak Suzuki Motor Co. Ltd. Pak Suzuki Motor Co. Ltd. Dewan Faarooque Motor Company Ltd
	Above 1200cc Suzuki	Suzuki Toyota Kia Toyota Toyota Honda Honda Honda Nissan Nissan Fiat	1300cc Magellan 1300cc Baleno 1300cc Corolla 1300cc Kia Classic 1600cc Corolla 2000cc Corolla 1300cc City 1500cc Civic 1600cc Civic 1400cc Sunny 2000cc Sunny 1700cc Fiat Uno	Pak Suzuki Motor Co. Ltd. Pak Suzuki Motor Co. Ltd. Indus Motor Company Ltd. Dewan Faarooque Motor Company Ltd Indus Motor Company Ltd. Indus Motor Company Ltd. Honda Atlas Car Company Ltd. Honda Atlas Car Company Ltd. Honda Atlas Car Company Ltd. Ghandahra Nissan Ltd. Ghandahra Nissan Ltd. Raja Motor Co. Ltd.
	Up to 1500cc	Suzuki	800cc Pickup	Pak Suzuki Motor Co. Ltd
Light commercial vehicles	1500cc to 2999cc	Kia Toyota Hyundai	2000cc Kia 2400cc Hilux 2800cc Hyundai	Dewan Faarooque Motor Company Ltd. Indus Motor Company Ltd. Dewan Faarooque Motor Company Ltd
	Above 3000cc	Mazda	T-3500	Sind Engineering (Pvt.) Ltd.
Jeeps	Up to 1000cc	Suzuki	1000cc Pothohar	Pak Suzuki Motor Co. Ltd.
	Up to 10 Passengers	Suzuki	Pickup	Pak Suzuki Motor Co. Ltd
Van/Buses	Above 40 up to 55 HP (DIN)	Nissan Hino Isuzu	SP-210L AK-174 MT-112	Ghandhara Nissan diesel Ltd. Hinopak Motors Ltd. Ghandhara Industries Ltd. (Formerly National Motors Ltd.)

Heavy Commercial Vehicles (Trucks)	4x2-GCW not exceeding 8 tons	Nissan	CPA-87	Ghandhara Nissan diesel Ltd.
	4x2-GCW exceeding 8 tons	Nissan Hino Isuzu	CPB-12 FF-174 FTR-12	Ghandhara Nissan diesel Ltd. Hinopak Motors Ltd. National Motors Ltd.
	6x2-GLW exceeding 8 tons	Nissan Hino Yasoob	CDA-12 FL-177 YF62C2433H	Ghandhara Nissan diesel Ltd. Hinopak Motors Ltd. Tran mobile Ltd.
	Prime mover GCW up to 40 ton	Nissan Hino	CPC-14 SG-221	Ghandhara Nissan diesel Ltd. Hinopak Motors Ltd.
	Prime mover GCW above 40 ton	Volvo Yasoob	FL-10 YE42C2432A35 ERRX.	Volvo Pakistan Ltd. Tran mobile Ltd.
Tractors	Up to 40HP (DIN)		-	
	Above 40 up to 55HP (DIN)	Massey Ferguson Fiat Universal	MF-240 Fiat-480S Universal	Millet Tractors Ltd. Al-Ghazi Tractors Ltd. G.M. Motors Pakistan Ltd.
	Above 55HP (DIN)	Massey Ferguson Fiat	Massey Ferguson MF-380 Fiat-640	Millet Tractors Ltd. Al-Ghazi Tractors Ltd.
2/3 Wheelers	Up to 100 cc	Suzuki Shoran Sohrab Honda Pak Hero Yamaha Qingqi Suzuki	A-80 JS-70 SS-70 CD-70 PH-70 CB-100 100 Spark A-100 SR	Suzuki Motor Cycles (Pak.) Ltd. Sohrab Motor Cycles Ltd. Sohrab Motor Cycles Ltd. Atlas Honda Ltd. Pak Hero Motors Ltd. Dawood Yamaha Ltd. Kohinoor Motor Co. Ltd. Suzuki Motor Cycles (Pak.) Ltd.
	Above 100cc up to 175cc	Honda	CG-125	Atlas Honda Ltd.
Auto Rickshaws	175cc	Vespa	P401 Deluxe	Raja Auto cars Ltd.

(PAAPAM Directory, 2005)

Appendix 2 Truck/Bus Parts being Manufactured in Pakistan

BODY PARTS				
BUMPER BUMPER SUB-ASSY, FR ARM SUB-ASSY, FR BUMPER, RH ARM SUB-ASSY, FR BUMPER, LH BRACKET, FR BUMPER SIDE MOUNTING RR BUMPER BUMPER ASSY, RR EXTENSION. RR BUMPER RH EXTENSION, RR BUMPER LH PLATE, RR BUMPER PLATE, RR BUMPER RH PLATE, RR BUMPER LH ARM RR BUMPER RH ARM RR BUMPER LH	INSTRUMENT PANEL PANEL SUB-ASSY, INSTRUMENT BRACE INST PANEL TO CAWL, CTR BRACKET S/A, INSTRUMENT PANEL, CTR BRACKET S/A INSTRUMENT PANEL SIDE LH NUT, SCREW, TAPPING BRAKET RADIO RECIVER A BRAKET RADIO RECIVER B	INSTRUMENT PANEL REINFORCEMENT REINFORCEMENT ASSY, INSTRUMENT PANEL BRACE INST PANEL TO COWL, UPR BRACE SDB-ASSY, INST PANEL, N0.1 BRACE SUB-ASSY, INST PANEL, NO.2 BOLT, W/WASHER	CLUSTER FINISH PANEL PANEL SUB-ASSY, INSTR CLUSTER FINISH PANEL, INSTR CLUSTER FINISH, CTR LWR SCREW, TAPPING	INSTRUMENT FINISH PANEL PANEL, INSTR. PANEL FINISH, LWR N0.1 PANEL SET, INSTR FINISH, LWR, RH BOLT, W/WASHER, SCREW, TAPPING CLIP COVER SUB-ASSY, INSTRUMENT, LWR
INSTRUMENT OPENING COVER COVER SPARE SWITCH HOLE COVER SPARE SWITCH HOLE COVER, SPARE SWITCH HOLE COVER, SPARE SWITCH HOLE COVER, STEREO OPENING SCREW TAPING	INSTRUMENT PANEL REGISTER REGISTER ASSY, INST PANEL. N0.1 REGISTER ASSY, INST PANEL. NO.2 SCREW, TAPPING	WINDSHIELD GLASS GLASS, WINDSHIELD WEATHERSTRIP, WINDSHIELD FR FLOOR MEMBER S/A, FLOOR SIDE, INNER RH MEMBER S/A, FLOOR SIDE INNER LH R/F, FR FLOOR RH R/F. FR FLOOR LH R/F FLOOR SIDE MBR RH R/F FLOOR SIDE MBR LH MBR RR FLOOR CROSS NO 1 MEMBER, FLOOR SIDE INNER RH	WINDSHIELD GLASS MEMBER, FLOOR SIDE, INNER LH BRACKET S/A, BODY MOUNTING, N0.2 RH BRACKET S/A. BODY MOUNTING, N0.2 LH BRACKET S/A, BODY MOUNTING, N0.3 RH BRACKET S/A, BODY MOUNTING, N0.3 LH BKT. INSTR PANEL BRACE MOUNTING MEMBER, FR FLOOR CROSS, RH MEMBER, FR FLOOR CROSS. LH PAN, FR FLOOR SHEET FR FLOOR SILENCER FR/CTR	HEAT INSULATOR INSULATOR, FR FLOOR HEAT, N0.1 NUT, W/WASHER INSULATOR ENGINE MTG RR INSULATOR, DASH PANEL HEAT 67 INSULATOR BRAKE TUBE HEAT

FR PILLAR MEMBER SUB-ASSY, SIDE RH MEMBER SUB-ASSY, SIDE LH	ROOF SIDE RAIL WEATHER STRIP WEATHERSTRIP, ROOF SIDE TAIL, RH WEATHERSTRIP, ROOF SIDE TAIL, LH	ROOF SIDE VENT LOUVER SUB-ASSY QUARTER VENT, RH LOUVER SUB-ASSY QUARTER VENT, LH	ROOF REINFORCEMENT, ROOF PANEL, FR PANEL, WINDSHIELD HEADER, INNER PANEL, BACK WINDOW, UPR INNER PANEL, ROOF	BACK PANEL PANEL SUB-ASSY, BACK HOLDER, JACK
BACK WINDOW GLASS GLASS, BACK WINDOW WEATHERSTRIP, BACK WINDOW GLASS	SILL ASSYS SILL, CROSS, N0.1, N0.2 SET SILL ASSY, CROSS, NO.5 84-SILL ASSY, CROSS, NO.7 SILL ASSY, CROSS, N0.8 SILL ASSY, RR CROSS SILL ASSY, CROSS, NO.3 SILL ASSY, CROSS, N0.4 SILL, CROSS. N0.6	RR BODY PANEL ASSY, RR BODY SIDE RH PANEL ASSY, RR BODY SIDE LH LID SUB-ASSY, FUEL FILLER OPENING BRACE. SIDE PANEL SKIRT, FR RH BRACE, WHEEL HOUSE, RH BRACKET, RR BODY MUDGUARD, RH BRACE. SIDE PANEL SKIRT, FR LH BRACE, WHEEL HOUSE, LH	RR BODY BRACKET, RR BODY MUDGUARD, LH NUT, BOLT, W/WASHER, SCREW GATE ASSY, RR BODY TAIL LATCH ASSY, TAIL GATE BOLT. W/WASHER COVER, TAIL GATE SERVICE HOLE SCREW, W/WASHER TAPPING GROMMET, SCREW HINGE ASSY, TAIL GATE, RH HINGE ASSY, TAIL GATE, LH	RR BODY BOLT, W/WASHER, SCREW COLLAR CUSHION COVER, QUARTER WHEEL HOUSE, RH COVER, QUARTER WHEEL HOUSE, LH CHAIN ASSY, TAIL GATE BUMPER, TAIL GATE RETAINER, FR FENDER LINER LINER, RR WHEEL HOUSE, RH LINER, RR WHEEL HOUSE, LH PLATE, RR WHEEL HOUSE, RR RH
RR BODY PLATE RR WHEEL HOUSE, RR LH PLUG HOSE WASHER, PLATE CUSHION SHIM R/F FLOOR PANEL RR RH R/F FLOOR PANEL RR LH PANEL, FLOOR, CTR `NUT, LOCK	HEADER BOARD ASSY, HEADER NUT, BOLT, W/WASHER DOOR PANEL PANEL SUB-ASSY, FR DOOR, RHW/ED PANEL SUB-ASSY, FR DOOR, LHW/ED	DOOR WINDOW FRAME FRAME S/A, FR DOOR, FR LWR RI-1 FRAME S/A, FR DOOR, FR LWR LH FRAME S/A, FR DOOR WDO, RR LWR RH FRAME S/A, FR DOOR WDO, RR LWR LH BOLT, W/WASHER	DOOR GLASS GLASS. FR DOOR, RH GLASS, FR DOOR, LH RUN, FR DOOR GLASS, RH RUN, FR DOOR GLASS, LH WEATHERSTRIP, FR DR GLASS. OUT RH WEATHERSTRIP, FR DR GLASS, OUT LH	DOOR WEATHER STRIP WEATHERSTRIP, FR DOOR, RH WEATHERSTRIP, FR DOOR, LH CUSHION

ENGINE INCLUDING ENGINE ASSEMBLY PARTS				
Engine Electric- 1. Alternator Assy. 2. Starter Motor Assy. 3. Cooling Fan Motor 4. Sensors a) Oil Pressure Switch b) Temperature Switch c) Others 5. Regulator 6. Others	**Sheet Metal / Moulded Parts** 1. Air Cleaner Assy. 2. Tappet Cover 3. Oil Pan 4. Timing Belt Cover 5. Fan 6. Piping Exhaust 7. Mufflers 8. Pulleys a) Crank Shaft	**Sheet Metal / Moulded Parts** -b) Water Pump -c) Alternator -d) Timing Belt Idler -e) Others -9. Plates, Covers, Lifting Hooks, Clamps Etc. Fitted To Engine -10. Dipstick -11. Others	**Engine Assy. & Testing-** All Engine Components To Be Disassembled Form except the following: -a) Water Pump -b) Oil Pump -c) Fuel Pump -d) Diesel Injection Pump	
(D)Crankshaft- **(E)Con Rod-** **(F)Cyl. Block (+ Liners)-** **(G)Cylinder Head-**	**(H)Filters-**a) Fuel **-**b) Oil **-**c) Air **-**d) Others	**(I)Flywheel-** **(J)Fuel Delivery & Management**a) Diesel Inj. Fuel Pump **-**b) Fuel Pump **-**c) Fuel Pipes	**K)Gaskets Including Cylinder(er Head & Exhaust Manifold-**Gasket Ex Mani **-**Gasket Oil Pan **-**Gasket water pump **-**Gasket Cyl. Head **-**Casket T. Case **-**Packings others	**(L)Gearing-**a) Starter Ring **-**b) Timing Gears / Sprockets **-**c) Others **(M)Hoses-**a) Water **-**b) Air **-**c) Others
(N)Ignition-a) Heaters **-**b) Atomizers with Holders Set **-**c) Others **(O)Manifolds-**a) Inlet **-**b) Exhaust	**(P)Plain Bearings & Bushes-**a) Main Crank Shaft **-**b) Cam Shaft **-**C) Con Rod (Big & Small End) **-**d) Others	**AIR CLEANER ASSY & ACCESSORIES-**PIPE INTAKE]|DUCT AIR INTAKE -**DUCT AIR CLNR** **-**PIPE AIR INTAKE(PLASTIC) NET][DUCT AIR CLEANER **-**CLEANER ASSY AIR][CLEANER ASSY **-**DUCT AIR CLNR **-** PIPES/AA;C][CAP **-**DUCT AIR CLNR **-**PIPE SUB ASSY|[DUCT AIR CLEANER	**BEARINGS** **BELTS-**V-BELT SET][V-BELT **CAMSHAFT & VALV MECHANISM** **-**LIFTER VALVEHFOLLOWERCAM **-**SPRING VALVE OUT][SPR SETVALVE CAMSHAFT][CAMSHAFT **-**ROD VALVE PUSH]|ROD PUSH **-**SEAT VALVE SPG][SEAT VALVE **-**SEAT VALVE SPG)[SEAT VALVE SRP **-**SEAL VALVE STEM]|SEAL VALVE STEM **-**SHAFT ASSY ROCK **-**CAP VALVE STEM)[COLAR SPLIT	**CASE GEAR-**PLATE FR END](COVER FRONT **-**COVER SUB ASSY](CASE GEAR TIMIN **COMPRESSOR ASSY-**COMPR ASS"][COMPR ASSY AIR **COOLER OIL-**COOLER ASSY OIL][ELEMENT COOLER & ADOPTER **COOLING SYSTEN-FAN-**FAN SUB ASSY COOL][FAN COOLING **-**SPACER FAN **-**BRKT ASSY-FAN **COOLING SYSTEM-WATER**COVER THERMOSTATE][OUTLET WATER **-**COCK ASSY COOLANT **-**CASE THERMOSTAT **-**TANK ASSY.HTANK ASSY WATER

CRANKSHAFT ASSY-SHELL METAL. UPR -SHELL METAL, LWR - CRANKSHAFT][CR ANK SHAFT ASSY -SHELL METAL, INN **CYLINDER BLOCK 8, FITTING-**BLOCK SUB ASSY CYL](BLOCK ASSY -JET ASSY OIL -COVER VALVE PUSH ROD][COVER CAM CHAMB -COVER S/A)(COVER CAM CHAMBER (FR S RR) **CYLINDER HEAD-**HEAD SUB	**ENGINE ASSY & TESTING**ENGINE ASSY & TESTING **ENGINE ELECTRICS-**TURN SWITCH -MOTOR ASSY ENG -STARTER ASSY)[MOTOR ASSY STARTER **FILTERS-**FILTER ASSY OIL **FLY WHEEL-**FLYWHEEL ASSY](FLY WHEEL ASSY **FUEL DELIVERY & MANAGEMENT-**SUPPORT FUEL TANK][HANGER FUEL TANK -PUMP ASSY INJ][PUMP	**HARDWARE-**HARDWARE -STUD **HOSES-**HOSES **HSGF/WHEELS ATTACHMENTS-**HOUSING SUB ASSY][HOUSING F/WHEEL -STIFFENERLH -STIFFENER RH -COVER F/H DUST](COVER POINTER **LINKAGE SYSTEM-**LEVER	**NOZZLE & HOLDER-**NOZZLE AND HOLDER)nozzle & HOLDER **OTHERS-**OTHERS **PAN OIL-**PAN SUB ASSY OIL][PAN OIL -GAUGE OIL LEVEL **PIPES & TUBES-**PIPE COOLANT PUMP -PIPE COOLANT)|DUCT WATER -PIPES)[TUBES& PIPES -PIPE SUB ASSY **PIPING EXH-**BKT EXH. -PIPE ASSY EXH.KTUBE ASSY EXH FRONT	**PISTON RINGS-**RING SET PISTON)[RINGS PISTON -RING RETAINER][RING SNAP **PULLEYS-**PULLEY CRANKSHT -PULLEY ASSY TEN](PULLY ASSY **PUMPS-**PUMP ASSY OIL][PUMP-HYDRAULIC -PUMP ASSY COOLANT **RADIATOR ASSY 8 ATTACHMENTS-**RADIATOR COMPLETE](RADIAT OR KIT **ROD ASSY CONN-**SHELL METAL, CONN -ROD ASSY CONNECTIN][ROD
ASSY CYL][HEAD ASSY **ENGINE MOUNTINGS-**MTG FR RH & LH](BKT ENG MTG FR -MOUNTING SUB ASSYKCUSH ENG MTG -MOUNTING RR RH & LH](BKT ENG MTG -MOUNTING SUB ASSY](CUSH ENG MTG	ASSY.INJ -TANK ASSY FUEL][TANK ASSY FUEL -GAGE ASSY FUELKSENDING UNIT **GASKETS-**GASKETS -GASKET EXH MANIFOLD **GEARS& SHAFT IDLER**GEARS -SHAFT ASSY IDL][SHAFT IDLER GEA -GEAR CAMSHAFT[(GEAR CAMSHAFT -SHAFT IDLER GEAR	STABILIZER **MANIFOLDS-**MANIFOLD EXH][MANIFOLD EXH CTR -MANIFOLD SUB ASSY -MANIFOLD EXH FR|(MANIFOLD EXH FR **MFLR ASSY & ATTACH**MUFFLERKMUFF LER **MISC CI & AI PARTS-**COVER CYL HEAD](COVER ROCKER FR &RR -BRACKET SUB ASSY P][BRACKET-PUMP FU -COVER SUB ASSY	BRACKET PIPE -BKT.EXH. -BRAKE ASSY EXH & CYL ASSY|[SHUTTER ASSY-EX -TAIL PIPE]|TUBE EXH TAIL **PISTON ASSY-**PISTON STD][PISTON -PIN PISTON](PIN PISTON WIRE ASSY & ATTACHMENTS**SUPPOR T** **WIRE** -CABLE SUB ASSY][WIRE ASSY ENG 1ST -CABLE SUB ASSY ACCL][WIRE ASSY ACCEL	ASSY CONN **SHEET METAL PARTS-**ARM ASSY -TEE 3-WAY -BRACKET ELECTRIC PART -PLATE SUB ASSY -SCREEN-OIL -VENTILATOR ASSY -BRACKET GEN][STAY GEN -SHIELD SUB ASSY -SHIELD SUB ASSY -PLATE FIXING -PLATE, FIXING **THERMOSTATE**THE RMOSTATE][THERMO ASSY **VALVES S GUIDES-**VALVE -VALVE ASSY MAG -VALVE ASSY SOLE -GUIDE

ELECTRICAL PARTS

BATTERY **FRONT LAMP & ROOM LAMP** HEADLAMP ASSY, RH HEADLAMP ASSY, LH LAMP ASSY, CLEARANCE, RH LAMP ASSY, CLEARANCE, LH LAMP ASSY, FR TURN SIGNAL, RH LAMP ASSY , ROOM LAMP ASSY, FR TURN SIGNAL, LH	**REAR LAMP** LAMP ASSY, RR TURN COMBINATION, RH LAMP ASSY, RR TURN COMBINATION, LH LAMP ASSY, LICENSE PLATE **FLASHER** FLASHER ASSY, TURN SIGNAL	**WIRE HARNESS** WIRE, ENGINE ROOM MAIN COVER,RELAY BLOCK WIRE, ENGINE, NO 2 WIRE, ENGINE, NO.3 WIRE, ALTERNATOR WIRE, COWL WIRE, FRAME WIRE, ROOF WIRE FR DOOR RH	**METER** METER ASSY, COMBINATION CLOCK ASSY **SWITCH** SWITCH, HAZARD WARNING SIGNAL SWITCH, COURTESY LAMP SWITCH ASSY, TURN SIGNAL SWITCH ASSY, STOP LAMP SWITCH ASSY, PARKING BRAKE SWITCH HEAD LAMP	**MOTOR ASSY., WIPER** LINK ASSY., WIPER COVER, WIPER ARM HEAD ARM & BLADE ASSY., FR WIPER, RH ARM & BLADE ASSY., FR WIPER, LH **CIGARETTE LIGHTER** LIGHTER ASSY., CIGARETTE **RELAY**
RADIO RECEIVER ASSY, RADIO SPEAKER ASSY, RADIO SCREW, PAN TAPPING SCREW, CROSS RECESS HEXAGON	**HORN** HORN ASSY., LOW PITCHED	**HEATER** BLOWER ASSY. RADIATOR ASSY., HEATER DUCT, AIR DUCT, AIR FR FENDER LH	**HEATER CONTROL** CONTROL & ACCESSORY ASSY, HEATER PLATE, HEATER CONTROL NAME HOSE, WATER HOSE, WATER	**MISCELLANEOUS ELECTRICAL** MISCELLANEOUS **ANTENNA** POLE SUB ASSY., PULL TOP ANTENNA ORNAMENT ANTENNA

INTERIOR TRIM PARTS

AIR DUCT DUCT, HEATER TO REGISTER, CTR DUCT, HEATER TO REGISTER N0.1 DUCT, HEATER TO REGISTER NO.2	**AIR DUCT** DUCT, HEATER TO REGISTER NO.3 DUCT, HEATER TO REGISTER N0.4 DUCT, HEATER TO REGISTER N0.5	**FLOOR CARPET** MAT ASSY, FLOOR, FR COVER, FLOOR CARPET MAT ASSY, FLOOR, RR RH MAT ASSY, FLOOR, RR LH	**DOOR TRIM** PANEL SET, DOOR TRIM L/RETAINER RETAINER, DOOR TRIM GARNISH, FR DOOR LWR FRAME BRACKET, RH	**HOLE PLUG** **DOOR TRIM OPENING** TRIM, FR DOOR OPENING **ROOF HEADLINING** HEADLINING ASSY, ROOF PAD, ROOF SILENCER

POWER TRAIN & CHASSIS PARTS

OWNERS MANUAL TOOL & JACK MANUAL, OWNERS JACK SUB-ASSY, SCREW TOOL SET, STD L/JACK SUPPORT, JACK HANDEL ASSY. SCREW JACK **CLUTCH GROUP** CYLINDER ASSY, MASTER COVER ASSY CLUTCH DISC ASSY CLUTCH BEARING, FORK, SPRING BOOT SEAT ETC. GASKET, MASTER CYLINDER	**OWNERS MANUAL TOOL &** **JACK** **CLUTCH PEDAL** PEDAL S/ASSY CLUTCH W/PAD & CUSHION COLLAR PIN SPRING, TENSION W/DAMPER **CLUTCH TUBING** TUBE, MASTER CYLINDER TO FLEXIBLE HOS TUBE, RELEASE CYLINDER TO FLEXIBLE HO BRACKET, FLEXIBLE HOSE, N0.1 HOSE, CLUTCH	**ACCELERATOR LINK** ROD ASSY, ACCELERATOR PEDAL BOLT, W/WASHER MISCELLANEOUS	**TRANSMISSION (GEAR)** LEVER ASSY, SHIFT KNOB SUB-ASSY, SHIFT LEVER GEAR ASSY, SPEEDOMETER DRIVEN W/SEN TRANSMISSION UNIT ASSY CYLINDER ASSY, CLUTCH RELEASE PLATE, STIFFENER, RH PLATE, STIFFENER, LH TRANSMISSION ASSY FEE	**PROPELLER SHAFT** SHAFT ASSY, PROPELLER W/CTR BEARING WASHER, SPRING **RR AXLE** AXLE ASSY, RR *WJG,* BREATHER

Appendix 3 Car Parts being Manufactured in Pakistan

BODY PARTS			
FRONT HOOD	**ROOF PANEL**	**LUGGAGE COMPARTMENT**	**REAR FLOOR**
GRILLE SUB ASSY	PANEL ROOF SIDE / PILLAR INNER RH	CARRIER SPARE WHEEL	SUPPORT SUB ASSY RR SUSPENSION
RADIATOR SUPPORT HOOD LOCK	PANEL ROOF SIDE / PILLAR INNER LH	PANEL SUB ASSY UPR BACK / PORTION	SUPPORT SUB ASSY RR SUSPENSION LH
PANEL HOOD	PANEL ROOF	PANEL ASSY LUGG COMPT DOOR	HOOK TRANSPORT RR RH / LH
HINGE ASSY HOOD RH	PANEL WINDSHIELD	CUSHION LUGGAGE COMPARTMENT	MBR FLOOR CROSS RR / CTR
HINGE ASSY HOOD LH	HEADER INNER	DOOR	R/F CTR FLOOR CROSS MEMBER RH
ROD HOOD SUPPORT	FRAME BACK WINDOW UPR	BAR HINGE TORSION RH	R/F CTR FLOOR CROSS MEMBER LH
PLATE RADIATOR COVER/ BRACE	PANEL S/A BODY LWR BACK W/ RR LAMP HOUSING	BAR HINGE TORSION LH	MBR RR FLOOR SIDE REINFORCEMENT / BKT RR FLOOR
HOOD LOCK MBR	MISCELLANEOUS PARTS (ROOF)	SUPRT/ HOLDER LUGG. COMPT. DR	PAN CTR FLOOR
LATCH ASSY HOOD	FRAME. ROOF INNER FRONT	TORSION BAR	PAN RR FLOOR
EMBLEM FRONT	FRAME. ROOF INNER REAR	BRACKET SUB ASSY PACKAGE TRAY TRIM RH	PROTECTOR SUB ASSY CTR MEMBER FR
BRACKET RADIATOR MOUNTING LWR N0.1		BRACKET SUB ASSY PACKAGE TRAY TRIM LH	PLUG HOLE / DRAIN
MISCELLANEOUS PARTS (HOOD)		HINGE ASSY LUGGAGE COMPARTMENT DOOR RH	MISCELLANEOUS PARTS (RR FLOOR)
BRACKETINSTPN		HINGE ASSY LUGGAGE COMPARTMENT DOOR LH	CROSS MEMBER RR FLOOR RR
BRACKET.WIPER LINK.R		PLATE NAME RR / DECKEL	BRACKET FUEL TANK RR R/L
CUSHION FRONT HOOD		GARNISH SUB ASSY LUG COMPT DOOR OUTSIDE	MEMBER COMP TAIL END
CROSS MEMBER		MISCELLANEOUS PARTS (LUGG. COMP)	BRACKET SPARE TYRE
COMP.DASH PANEL			CROSS MEMBER COMP RR FLOOR FRONT
BRACKET.WIPER LINK CENTER			BRACKET.JACK
CUSHION.FRONT HOOD REAR			
PANEL.FR HOOD INNER			
MAIN FLOOR	**ENGINE COMPARTMENT**	**ENGINE COMPARTMENT**	**SIDE BODY**
REINF CHANGE LEVER	SUPPORT FR SUSPENSION	JAR & PUMP ASSY FR WASHER W/O MOTOR	PANEL / MBR COWL TOP SIDE RH
R/F FR FLOOR UNDER RH	CROSS MEMBER SUB ASSY FR SUSPENSION	NOZZLE FR WASHER HOSE & VALVE ASSY	PANEL / MBR COWL TOP SIDE LH
R/F FR FLOOR UNDER LH	MEMBER SUB ASSY ENGINE MOUNTING CTR	REINFORCEMENT FR SPRING SUPPORT RH	PANEL / MBR ASSY COWL
R/F FR FLOOR UNDER RR	DAMPER FR SUSPENSION MEMBER DYNAMIC	PANEL S / A FR FENDER RH	MEMBER FLOOR SIDE INNER RH
MEMBER FR FLOOR CROSS	COVER ENGINE UNDER RH	PANEL S / A FR FENDER LH	MEMBER FLOOR SIDE INNER LH
PAN S/A FR FLOOR W/O R/F AND MEMBER	COVER ENGINE UNDER LH	PANEL SUB ASSY DASH	PILLAR FR BODY UPR INNER RH
BRACKET FR SEAT OUTSIDE	MBR S/A FR SIDE WITH APRON RH	PLATE SUB ASSY FR SIDE MEMBER RH	PILLAR FR BODY UPR INNER LH
REINFORCEMENT SEAT BELT	MBR S/A FR SIDE WITH APRON LH	PLATE SUB ASSY FR SIDE MEMBER LH	PILLAR CTR BODY INNER UPR RH
MISCELLANEOUS PARTS (MAIN FLOOR)	LINER, FR FENDER RH	MBR S/A STG BOX SUPPORT W/ X-MBR DASH & SUPP	PILLAR CTR BODY INNER UPR LH
BRACKET.STEERING RACK	LINER, FR FENDER	CLAMP SUB ASSY BATTERY W / BOLT	PILLAR CTR BODY INNER RH
BRACKET.SUSPENSION UPPER.R		PLATE NAME/ID	PILLAR CTR BODY INNER LH
CROSS MEMBER COMP FRONT LOWER			PANEL QUARTER WHEEL HOUSE OUTER RH
BRACKET FRONT SEAT RR INSIDE			PANEL QUARTER WHEEL HOUSE OUTER LH
BRACKET.FLEXIBLE HOSE			PANEL QUARTER WHEEL HOUSE

BRACKET MUFFLER HANGER EXTENSION MAIN FLOOR-L BRACKET STEERING PINION SIDE EXTENSION MAIN FLOOR-R BRACKET.SUSPENSION UPPER.L EXTESION COMP SEAT BRKT-L BRACKET.FUEL PIPE CLAMP EXTESION COMP SEAT BRKT-R BRACKET COMP PARKING LEVER BRACKET STABLIZER BAR MOUNT BRACKET FRONT SEAT RR OUT -L BRACKET.FLEXIBLE HOSE BRACKET COMPL EXTENSION ROD	LH INSULATOR ASSY DASH PANEL TRAY BATTERY CABLE ASSY ACCELERATOR CONTROL	MISCELLANEOUS PARTS (ENGINE COMPARTMENT) PANEL WATER PROOF PLUG BRACKET.RESERVE TANK PANEL COMP REAR SKIRT BRACKET.HORN PANEL GRILL LOWER PANEL FR FENDER APRON R/L MEMBER COMP FRONT UPPER MEMBER FRONT CENTER BRACKET COMP BATTERY BRACKET BRAKE MASTER CYLINDER BRACKET COMP BATTERY BRACKET BRAKE MASTER CYLINDER	INNER RH PANEL QUARTER WHEEL HOUSE INNER LH LOUVER / GARNISH S/A COWL TOP VENTILATOR PANEL SIDE OUTER W / O QUARTER PANEL RH
SIDE BODY PANEL SIDE OUTER W / O QUARTER PANEL LH RAIL ROOF SIDE INNER RH RAIL ROOF SIDE INNER LH, REINFORCEMENTS SIDE BODY CHANNEL ROOF DRIP SIDE MISCELLANEOUS PARTS (SIDE BODY) PANEL COMP COWL UPPER PANEL.RR WHL HOUSE OTR EXT.R REINF RR DR HINGE R/L REINF REAR DOOR HINGE REINF.FR SEAT BELT UPPER.R REINF ROOF INNER RR UPPER-L REINF REAR DOOR HINGE UPPER-L REINF FRONT SEAT BELT INSIDE PANEL RR WHEEL HOUSE INNER-L PANEL LUGG COMP /BACK DR OUT REINF,REAR SEAT BELT CENTER PANEL QTR INNER LOWER-L PANEL.RR WHL HOUSE OTR EXT.L PANEL.QTR INNER UPPER.L	**SIDE BODY** REINF RR DOOR STRICKER R/L REINF.FR SEAT BELT UPPER.L REINF RR DR HINGE LOWER-R PANEL QTR INNER LOWER-R PANEL REAR WHEEL HOUSE INNER PANEL COMP.LAMP SUPPORT R/L BRACKET FR FENDER BOLT SIDE DOOR HINGE PILLAR HOUSING RR COMP LAMP INNER-R HANDLE COMP FR/RR DOOR OUT-L SIDE BODY R/L ASSEMBLY BOLT FR UPPER MEMBER HOUSING RR COMB LAMP OUT R/L PANEL COMP.LAMP SUPPORT,R BRACKET COMP FUEL FILTER CUSHION FUEL LID BRACKET FR FENDER BOLT SIDE DOOR HINGE DOOR BOX COMP FUEL INLET HOUSING RR COMP LAMP INNER-L	**DOORS** CYLINDER AND KEY SET HANDLE SUB ASSY FR /RR DOOR INSIDE RH HANDLE SUB ASSY FR /RR DOOR INSIDE LH HANDLE ASSY FR DOOR OUTSIDE RH HANDLE ASSY FR DOOR OUTSIDE LH HANDLE ASSY RR DOOR OUTSIDE RH HANDLE ASSY RR DOOR OUTSIDE LH - HANDLE ASSY DOOR WINDOW REGULATOR HANDLE COMP FR/RR.DR. INSIDE HANDLE COMP FR/RR DOOR OUT HANDLE COMP RR. DR. INSIDE-L HANDLE COMP FR.DR. INSIDE-L HANDLE COMP RR. DR. INSIDE-R HANDLE COMP DR WINDOW RGLTR LINK FR DOOR LOCK REMOTE CONTROL RH LINK FR DOOR LOCK REMOTE CONTROL LH REG ASSY DOOR WINDOW (PULLEY TYPE) RH	**DOORS** REG. ASSY DOOR WINDOW (PULLEY TYPE) LH REG. ASSY DOOR WINDOW (RACK & PINION TYPE) RH REG. ASSY DOOR WINDOW (RACK & PINION TYPE) LH REGULATOR ASSY FRONT WINDOW-R REGULATOR ASSY RR WINDOW-L REGULATOR ASSY RR WINDOW-R REGULATOR ASSY FRONT WINDOW-L PANEL SUB ASSY FR DOOR RH PANEL SUB ASSY FR DOOR LH PANEL SUB ASSY RR DOOR RH PANEL SUB ASSY RR DOOR LH PANEL FRONT DOOR INNER-L PANEL FRONT DOOR OUTER-R PANEL FRONT DOOR INNER-R PANEL FRONT DOOR OUTER-L PANEL REAR DOOR INNER-R PANEL REAR DOOR OUTER-R PANEL REAR DOOR OUTER-L PANEL REAR DOOR INNER-L

DOORS SUPPORT DOOR TRIM RH SUPPORT DOOR TRIM LH COVER DOOR SERVICE HOLE CHECKS / STOPPER FR / RR HINGES DOOR CHANNEL COMP FR GLASS BOTTOM CHANNEL COMP RR GLASS BOTTOM-R CHANNEL COMP RR GLASS BOTTOM-L GUSSET.BACK DOOR BALANCER REINF COMP DOOR HING R REINF COMP.FR DOOR STRIKER.L	**DOORS** GUESST BACK DOOR BALANCER REINF COMP.FR DOOR STRIKER.R GUSSET COMP.FRONT DOOR HINGE.L REINF. COMP FR DR STRIKER R/L GUSSET COMP.REAR DOOR HINGE.L RETAINER.DOOR STRIKER GUSSET FR DOOR R/L RETAINER.DOOR STRIKER REINF BACK DOOR BALANCER SASH COMP.FRONT DOOR FRONT.L	**DOORS** REINF BACK DOOR HINGE-R SASH COMP.FRONT DOOR FRONT.R REINF BACK DOOR LATCH SASH COMP FRONT DOOR REAR-L BOLT BAL STUD SASH COMP FRONT DOOR REAR-R GUSSET COMP.FRONT DOOR HINGE,R SASH COMP.FRONT DOOR WINDOW.L GUSSET RR DOOR R/L SASH COMP.FRONT DOOR WINDOW.R REINF BACK DOOR KEY CYLINDER	**DOORS** SASH COMP REAR DOOR CENTER-L BOLT BACH DOOR HINGE MALE SASH COMP REAR DOOR CENTER-R REINF BACK DOOR HINGE-L GUSSET COMP.REAR DOOR HINGE.R REINF COMP DOOR HING L SASH COMP.REAR DOOR WINDOW.L SASH COMP.REAR DOOR WINDOW.R SPACER DOOR STRIKER DOOR STOPPER HANDLE BACK DOOR OUT
FUEL TANK TANK ASSY FUEL ASSY FEE (INCL 2,3 &11 for Baleno) TANK FUEL UPR TANK FUEL LWR TANK ASSY FUEL TUBE S/A FUEL MAIN TUBE S/A FUEL RETURN TUBE S/A FUEL TANK TO CANISTER PIPE FUEL TANK FILLER WITH HOSES BAND SUB ASSY FUEL TANK RH BAND SUB ASSY FUEL TANK LH CAP ASSY FUEL TANK LID ASSY FUEL FILLER OPENING MISCELLANEOUS PARTS (FUEL TANK)	**GLASS AND MIRRORS** GLASS WINDSHIELD GLASS BACK WINDOW GLASS RR DOOR QUARTER WINDOW RH GLASS RR DOOR QUARTER WINDOW LH MIRROR ASSY OUTER RR VIEW RH MIRROR ASSY OUTER RR VIEW LH GLASS RR DOOR LH GLASS RR DOOR RH GLASS FR DOOR LH GLASS FR DOOR RH CHANNEL FR / RR DOOR GLASS GLASS SET.DOOR PARTITION WINDOW GLASS SET.DOOR PARTITION WINDOW MOULDING QTR WINDOW R/L MOULDING WINDSHIELD	**WEATHER STRIPS , DOOR RUNS AND DOOR MOULDINGS** WEATHER-STRIP LUGGAGE COMPARTMENT DOOR WEATHERSTRIP.BACK DOOR OPNG WEATHERSTRIP.BACK DOOR WINDOW WEATHER-STRIP FR DOOR RH WEATHER-STRIP FR DOOR LH WEATHER-STRIP RR DOOR RH WEATHER-STRIP RR DOOR LH WEATHERSTRIP.FRONT DOOR OPNG.L WEATHERSTRIP.FRONT DOOR.OPNG.R WETHEATER STRIP QTR WINDOW R/L WEATHER STRIP.PARTITION.L WEATHERSTRIP.RR DOOR INNER WEATHERSTRIP.REAR DOOR OPNG.L	**WEATHER STRIPS , DOOR RUNS AND DOOR MOULDINGS** WEATHERSTRIP.FR DOOR INNER WEATHERSTRIP.REAR DOOR OPNG.R WEATHERSTRIP.WINDSHIELD WEATHERSTRIP.PARTITION, RUN FR DOOR GLASS RH RUN RR DOOR GLASS RH RUN FR DOOR GLASS LH RUN RR DOOR GLASS LH RUN REAR DOOR GLASS RUN FRONT DOOR GLASS WEATHER STRIP FR DOOR GLASS OUTER RH WEATHER STRIP FR DOOR GLASS OUTER LH WEATHER STRIP RR DOOR GLASS OUTER RH WEATHER STRIP RR DOOR GLASS OUTER LH
WEATHER STRIPS , DOOR RUNS AND DOOR MOULDINGS WEATHER-STRIP RR DOOR QUARTER WINDOW RH WEATHER-STRIP RR DOOR QUARTER WINDOW LH WEATHER STRIP FR DR OUT R/L WEATHER STRIP RR OR OUT R/L MOULDING FR FENDER	**WEATHER STRIPS , DOOR RUNS AND DOOR MOULDINGS** MOULDING RR DOOR OUTSIDE LH MOLDING COMP FR FENDER-L MOLDING.ROOF.L MOLDING COMP FR FENDER-R MOLDING.ROOF.R MOLDING COMP FR DOOR MOLDING COMP RR	**BUMPERS AND INSTRUMENT PANEL** MBR OR R/F SUB ASSY FR BUMPER UPR SUPPORT FR BUMPER SIDE RH SUPPORT FR BUMPER SIDE LH COVER FR BUMPER COVER RR BUMPER BRACE S/A INSTRUMENT PANEL NO. 1 BRACE S/A	**BUMPERS AND INSTRUMENT PANEL** MISCELLANEOUS PARTS STAY.FRONT BUMPER.L STAY.FRONT BUMPER.R COVER.BUMPER HOLE BOLT BUMPER BRACKET BRACKET.RADIO SPEAKER BRKT FRONT BUMPER CENTRE BOLT REAR BUMPER STAY BRACKET FRONT BUMPER-R BRACKET FRONT BUMPER.L

OUTSIDE RR RH MOULDING FR FENDER OUTSIDE RR LH MOULDING FR DOOR OUTSIDE RH MOULDING FR DOOR OUTSIDE LH MOULDING RR DOOR OUTSIDE RH	DOOR-R MOLDING COMP RR DOOR-L END ROOF MOLDING R/L	INSTRUMENT PANEL NO. 2 BRACKET S/A INSTRUMENT PANEL CTR RETAINER / HOLDER S/A RR BUMPER SIDE RH RETAINER / HOLDER S/A RR BUMPER SIDE LH RETAINER/ MBR S/A RR BUMPER UPR CTR PANEL ASSY INSTRUMENT REINFORCEMENT ASSY INSTRUMENT PANEL	
MISCELLANEOUS BODY PARTS CAPS COVERS EXTENSION.APRON HOLDER FRONT HOOD STAY MISCELLANEOUS BODY PARTS NUTS.BOLTS.CLAMPS.WASHERS.ETC. OPENER COMP.HOOD LATCH PACKING.BACK DOOR HINGE FEMALE PAD COMP.INSTRUMENT PANEL STAY STRENGTH PARKING CABLE STRIKER COMP BACK DOOR LATCH STRIKER COMP DOOR LATCH STRIKER COMP HOOD LATCH-R SUPPORT REAR DOOR UPPER UNIT,BACK DOOR BALANCER	**MISCELLANEOUS BODY PARTS** UNDER BODY ASSEMBLY CAP.BACK DOOR HINGE HOLE CAP DOOR SW HOLE CAP FLOOR DRAIN CAP FLOOR DRAIN CAP FLOOR DRAIN CAP FRONT PILLAR OUTER CAP.QTR INNER CASE,DOOR STRIKER CASE.DOOR STRIKER CLAMP FLOOR HARN FUEL WIRE COVER ANT HOLE COVER DOOR SW-L COVER DOOR SW-R COVER FLOOR HARN COVER FUEL WIRE CUSHION GRILL LOWER EXTENSION.APRON FRONT	**MISCELLANEOUS BODY PARTS** EXTENSION.APRON FRONT.R EXTENSION APRON UPPER-L EXTENSION APRON UPPER-R GARISH FR SASH BRKT INR-L GARISH FR SASH BRKT INR-R GARISH FR SASH BRKT OUT-L GROMMENT FRONT HOOD STAY HOLDER CABLE HOLDER.FRONT BUMPER SIDE HOLDER FRONT HOOD STAY HOLDER.REAR BUMPER SIDE LID COMP.RR DOOR INNER LOCK.L LID COMP.RR DOOR INNER LOCK.R LOCKER RR FL FR R/L MISCELLANEOUS BODY PARTS NUT FENDER LINING NUT.REAR BUMPER NUT U BOLT NUTS,BOLTS,CLAMPS, WASHERS,ETC. OPENER COMP,HOOD LATCH PACKING.BACK DOOR HINGE FEMALE	**MISCELLANEOUS BODY PARTS** PACKING.BACK DOOR HINGE FEMALE PAD COMP.INSTRUMENT PANEL PAD SET FLOOR SILENCER PROTECTOR LICENCE LAMP WIRE REINF.STEERING BRACKET REINF. RR SEAT BELT CTR SEAL COMP.HOOD REAR STAY FRONT HOOD STAY PARKING CABLE BRACKET STAY REAR BUMPER-L STAY REAR BUMPER-R STOPPER COMP REAR BUMP STRENGTH PARKING CABLE STRIKER COMP.BACK DOOR LATCH STRIKER COMP DOOR LATCH STRIKER COMP HOOD LATCH-R SUPPORT.BATTERY BRACKET SUPPORT REAR DOOR UPPER SUPPORT REAR DOOR UPPER UNIT.BACK DOOR BALANCER

ELECTRICAL PARTS			
BATTERY RADIO , ANTENNA & SPEAKERS WIRE HARNESS SET CLOCK ASSY HORN HIGH PITCHED HORN LOW PITCHED FLASHER ASSY TURN-SIGNAL LAMP ASSY DOME LAMP ASSY FR TURN SIGNAL LH	LAMP ASSY FR TURN SIGNAL RH LIGHTER ASSY CIGARETTE HEADLAMP ASSY RIGHT HEADLAMP ASSY LEFT LAMP ASSY CLEARANCE LH LAMP ASSY CLEARANCE RH METER ASSY COMBINATION LAMP ASSY LICENSE PLATE LH LAMP ASSY LICENSE PLATE RH	LAMP ASSY RR COMBINATION LH LAMP ASSY RR COMBINATION RH SWITCH ASSY COMBINATION WASHER MOTOR HEATER RELAY MISC. OF ELECTRICAL	WIPER MOTOR WIPER LINK ASSY SET WIPER BLADE & ARMS SWITCH DOOR/SWITCH SET IGNITION SWITCH ASSY BACK UP LAMP LAMP ASSY SIDE TURN SIGNAL
ENGINE PARTS			
-**ENGINE ELECTRIC** **-Alternator Assy** **ENGINE ELECTRIC-Starter Motor Assy** -**Cooling Fan Motor** -**Sensors** --Oil pressure Switch --Temperature Switch --Others -**Ignition oil & H.T Cable** -**Others** -	-SHEET METAL / MOULDED PARTS -Air cleaner Assy SHEET METAL / MOULDED-Tappet Cover **PARTS-Oil Pan** -**Timing Belt Cover** -**Fan** -**Piping Exhaust** -**Mufflers** -**Catalytic Converter** -**Pulleys** --Crank Shaft --Water Pump --Alternator --Timing Belt Idler --Other -**Plates Covers Lifting, Hooks, Clamps etc. fitted to Engine** -**Dipstick**	-**ENGINE ASSEMBLY AND TESTING** **-All Engine Components to be Engine Assy & Testing-Disassembled Form Except the** -**following** --a). Water Pump --b). Oil Pump --c). Fuel Pump --d). Carburetor / EFI / Diesel --Injection pump -**CRANK SHAFT** **-Crank Shaft** **Crank Shaft--** -**CONNECTING ROD** **-Connecting Rod** **Connecting Rod--**	-**CYLINDER BLOCK AND LINER** **-Cylinder Block (+ Liner)** **Cyl Block (+ Liner)--** - -**CYLINDER HEAD** **-Cylinder Head** **Cylinder Head--** - -**FILTERS** **(H)-Fuel Filters-Oil-** -**Air-** -**Other** - -**FLYWHEEL** **Flywheel** **Flywheel--**
-**FUEL DELIVER AND MANAGEMENT** **-Carburetor or EFI or Diesel Fuel Delivery &-**or Electronic Fuel Injection **Management-**or Diesel Injection Fuel Pump -**Fuel pump** -**Fuel Pipes** -**GASKETS INCLUDING HEAD** **CYLINDER AND EXHAUST MANIFOLD** **-Gaskets including Head Cylinder** **Gaskets including Head-Exhaust Manifold** **Cylinder and Exhaust Manifold--** -**GEARING** **-Starter Ring** **Gearing-Timing Gears / Sprockets** -**Others** -**HOSES** **-Water Hoses-Air-** -**Others**	-**IGNITION** **Spark Plug or Heaters** **Ignition-Distributor Assy (All Types) or Atomizers with Holders** -**c) Others** - -**MANIFOLDS** **-Inlet Manifolds-Exhaust** - -**PLAIN BEARING AND BUSHES** **-Main Crank Shaft Plain Bearings & Bushes-Cam Shaft** -**Connecting Rod (Big & Small End)** -**Other** -**PISTON ASSEMBLY** **-Piston Assy** **Piston Assy--** -**PISTON RING** **-Piston Ring** **Piston Ring--** - -**WATER PUMP** **-Pump Water**	**Pump Water--** -**OIL PUMP** **-Pump Oil** **Pump Oil--** -**RADIATOR ASSEMBLY** **-Radiator Assy** **Radiator Assy--** -**THERMOSTAT** **-Thermostat** **Thermostat--** -**BELTS** **-Fan Belt** **Belts-Timing belts** -**Others** -**VALVES AND GUIDES** **-Inlet Valve Valves & Guides-Exhaust Valve** -**Guides/Others** -**CAM SHAFT AND TAPPETS** **-Cam Shaft** **Cam Shaft & Tappets-Followers** -**Push Rods** -**Rocker Arm** -**Rocker Shaft**	-**SPRINGS** **Valve Spring** **Springs-Others** -**MISC. C I AND A I PARTS** **-Misc C I & Al Parts** **Misc C I & Al Parts--** - -**RUBBER / PLASTIC PARTS** **-Engine Mountings Rubber / Plastic Parts-Seals** -**O Rings** -**Grommets** -**Misc** - -**HARDWARE** **--Nut, Bolts, Washers (all types)** **Hardware--Stud-pins & Keys, Dowels, Clips** **--Clamps, Retainers.**

SUSPENSION PARTS			
CLUTCH AND RELEASE FORK / CLUTCH MASTER CYLINDER CLUTCH MASTER CYLINDER COVER ASSY CLUTCH DISC ASSY. CLUTCH BEARING ASSY. FORK/SHAFT CLUTCH RELEASE CABLES BRACKET, SUPPORT, ARM SPRING BOOTS & SEALS CLAMPS & CLIPS	PINS, NUTS, BOLTS & SCREWS BRAKE / CLUTCH AND BRACKET PEDAL ASSY OR PEDAL SET BRAKE BRACKET ASSY SHAFTS, COLLER PLATES PADS SPRING BUSHES & CUSHIONS PINS AND NUTS TRANSMISSION CASE (AL ALLOY DIE CASTING) CASE TRANSMISSION/CASE TRANSMISSION ASSY PIPE OIL RECEIVER'/GUTTER INPUT OIL PROTECTOR RETAINER & PLATE OIL SEAL & O-RINGS CAP & HOOK MAGNET TRANSMISSION & SWITCH BACKUP LAMP GASKETS BOLTS. STUDS, SCREWS, PLUGS & WASHERS	SPEEDOMETER DRIVER GEAR GEAR SUB ASSY,, SPEEDOMETER DRIVEN CASE. SEALS & 'O' RINGS BOLTS, WASHERS & CLIPS CABLE TRANSMISSION GEAR HUB ASSY, & BUSHES SLEEVES KEYS SYNCHROMESH RING SYNCHRONIZING SPRING SYNCHRONIZING & SNAP RINGS SHIMS. CIRCLIPS & SPRINGS BRACKETS BEARING BALLS & NEEDLE ROLLERS OIL SEAL SHAFT INPUT SHAFT OUTPUT/COUNTER GEARS FORWARD SPEED	TRANSMISSION GEAR GEAR INPUT SHAFT 4TH GEAR INPUT SHAFT 3rd GEARS REVERSE SPEED GEAR COUNTER-SHAFT 1st GEAR COUNTER SHAFT 2nd GEAR COUNTER SHAFT 3rd GEAR COUNTER SHAFT 41h & 5th GEAR & SHAFT IDLER GEAR REVERSE IDLER GEAR FINAL SPACER PINS. BOLTS. NUTS WASHERS & GASKETS
EAR SHIFT FORK AND LEVER SHAFT FORKS PLATES & PLATES INTER LOCK SUB-ASSY SHAFTS ARMS. LEVERS. HEAD GEAR SHIFT & GUIDE CAMS, CASE & COVERS /SPACERS BALLS & ROLLERS BOOTS. 'O' RINGS & OIL SEALS SEATS & BUSHES RINGS, SPRINGS & CIRCLIPS PINS, PLUGS, BOLTS, WASHERS & GASKETS SHAFT LEVER AND RETAINER LEVER ASSY. SHIFT OR LEVER SET GEAR CONTROL SHIFT JOINT COMP. GEAR SHIFT CONTROL ROD SET EXTENSIONS / SHAFT COMP GR SHIFT CONTROL BOOTS 'O' RINGS & BUSHES BOLTS, WASHERS & SPACERS	REAR AXLE SHAFT AND HUB HUBS AXLE SHAFT BRAKE DRUMS BEARINGS SEAL OIL & 'O' RINGS BRACKETS & CAPS NUT, BOLTS, WASHERS & SPACERS ROD WHEEL AND TYRE WHEEL DISCS OR WHEELS ORNAMENT SUB-ASSY. TYRES & VALVES CAPS WEIGHT BALANCE NUTS	DIFFERENTIAL GEAR CASE DIFFERENTIAL SHAFTS & PINS RING GEAR OR GEAR FINAL & BEARINGS DIFFERENTIAL GEARS & PINIONS OIL SEALS & SHIMS GEAR SPEEDOMETER DRIVER WASHER & BOLTS FRONT DRIVE SHAFT SHAFT ASSY. FRONT DRIVE HUB SUB. ASSY OR HUB FRONT WHEEL DEFLECTORS.CLAMPS & BANDS / SPACER BOOTS KIT OR SET. SEALS KIT OR SEALS & DUST COVERS BEARINGS & JOINT ASSY, BOLTS, NUTS, WASHERS & SNAP RINGS	STEERING COLUMN AND SHAFT COLUMN ASSY & SHAFT ASSY BEARINGS & JOINT/YOKE ASSYS COVER STRG, JOINT, COVER SET STRG COLUMN. COVER SUPPORTS. BRACKETS, COVERS & COLLARS SNAP RINGS. CLAMPS BUSHES & LEVERS BOLTS. NUTS, WASHERS & SCREWS STEERING WHEEL WHEEL ASSY STEERING BUTTON ASSY & PAD STEERING Wt 1EEL NUTS, SCREWS & SHIMS FRONT STEERING GEAR AND LINK HOUSING/CASE ASSY. RACK & PINION STEERING BEARINGS COVERS, BRACKETS & GROMMETS OR MOUNTS GUIDES, SPRINGS & SPACERS CAPS, CLAMPS PLUGS & BUSHES

FRONT STEERING GEAR AND LINK ENDS STEERING RACK & TIE ROD BOOTS, SEALS & 'O' RINGS PLUNGERS, CLIPS, & SNAP RINGS VANE PUMP ASSY NUTS, BOLTS, WASHERS, SCREWS & COTTER PINS PARKING BRAKE AND CABLE CABLE SUB ASSYS LEVER SUB ASSYS BOOTS, SHIELDS & CLAMPS COVER, BRACKET & RETAINERS NUTS, SCREWS, WASHERS & BOLTS BRAKE MASTER CYLINDER CYLINDER ASSY BRACKETS, CLAMPS & CAPS NUTS, BOLTS & PINS	FRONT DISC BRAKE CALIPER AND DUST COVER CALIPER ASSY DISC BRAKE COVER DUST BUSHES, SHIMS, BOLTS, SCREWS & NUTS REAR BRAKE AND WHEEL CYLINDER BACK PLATE ASSY BRAKE CYLINDER BRAKE SHOES LINK, RETAINERS SPRINGS NUT. BOLT, PINS	BRAKE TUBES AND CLAMPS PROPORTIONING/DISTRIBUTION VALVE ASSY TUBES. HOSES OR PIPES COVERS. BRACKETS JOINTS / CLAMP "E" RINGS & GASKETS BOLTS, NUTS & WASHERS HOSE FLEXIBLE FRONT SUSPENSION BUMPER SPRING STEERING KNUCKLE STRUT ASSY OR SHOCK ABSORBER ASSY ARM SUB ASSY & JOINTS SPRING COIL & COVER SUB ASSY RETAINERS. BUSHES & LINKS BARS STABILIZER & MOUNTS RING SNAPS & BUSHES BOLT, NUTS & WASHERS COVER DUST. SPACES & PLATES	REAR SUSPENSION CARRIER/KNUCKLE ASSY SHOCK ABSORBER ASSY PLATE SHACKAL LEAF SPRING SPRING COIL & ARM ASSY SUPPORT SUB ASSY MOUNTING, SPACERS MOUNTS, / BUSHING NUTS, BOLTS & WASHERS TOOL KIT HANDLE JACK JACK SUB-ASSY PANTOGRAPH MANUAL OWNER TOOL SET SLD JACK

TRIM PARTS

ADJUSTER ASSY FR SEAT LH ADJUSTER ASSY FR SEAT RH ARM REST BELT ASSY FR SEAT INNER LH BELT ASSY FR SEAT OUTER LH BELT ASSY FR SEAT OUTER RH BEZEL BOLTS BOX CONSOLE RR BOX SUB ASSY FR ASH RECEPTACLE CAPS CARPET ASSY, FLOOR FR CASE VENTILATOR CLIPS CONTROL CABLES COVER ASSY, SPARE WHEEL COVER FLOOR CARPET COVER LUGGAGE COMP. COVER SUB ASSY LUGG COMPT. SIDE RH COVER SUB ASSY LUGG.	DIVISION BAR DUCT HEATER TO REGISTER NO. 1 DUCT HEATER TO REGISTER NO. 2 DUCT HEATER TO REGISTER NO. 3 DUCT HEATER TO REGISTER NO. 4 EMBLEMS/STICKER EMBLUMS EXTENSION HANDLE WINDOW REGULATOR FRESH AIR CONTROL ASSY GARNISH CTR PILLAR LWR LH GARNISH CTR PILLAR LWR RH GARNISH CTR PILLAR RR LH GARNISH CTR PILLAR RR RH GARNISH CTR PILLAR UPR LH GARNISH CTR PILLAR UPR RH GARNISH FR PILLAR LH GARNISH FR PILLAR LWR	HANDLE RECLINING ADJUSTER RH HEAD RESTRAINT R/L HEADLINING ASSY ROOF JOINT WINDOW MOULDINGS KNOBS LEVER HEAD LATCH RELEAX LID GLOVE BOX LID GLOVE BOX LOCKS MAT LUGG. COMPARTMENT FLOOR. MIRROR ASSY INNER RR VIEW MISC. BODY INTERIOR PARTS NOZZLE WASHER NUT OUTLET VENTILATORS R/L PAD FUEL TANK PADS PANEL ASSY FR DOOR TRIM, LH PANEL ASSY FR DOOR TRIM, RH PANEL ASSY PACKAGE	PLATE RR DOOR SCUFF RH PLUGS RETAINER SUB ASSY FR ASH RECEPTACLE RUBBER GLASS CHANNEL RUBBER GLASS CHANNEL SEAT SET WITHOUT RECLINING SHIELD FR SEAT CUSHION INNER LH SHIELD FR SEAT CUSHION INNER RH SHIELD FR SEAT CUSHION LH SHIELD FR SEAT CUSHION RH SHIFT LEVER COVER SILENCER SHEETS FLOOR & ROOF TRACK ASSY FR SEAT INNER LH TRACK ASSY FR SEAT INNER RH TRIM BACK DOOR TRIM COVERS

COMPT. SIDE LH COVERS CUSHIONS DEFROSTER NOZZLES	LH GARNISH FR PILLAR LWR RH GARNISH FR PILLAR RH GARNISH ROOF SIDE INNER LH GARNISH ROOF SIDE INNER RH GRIP A/S ASSIST HANDLE RECLINING ADJUSTER LH	TRAY TRIM PANEL ASSY RR DOOR TRIM, LH PANEL ASSY RR DOOR TRIM, RH PANEL/LEVER ASSY HEATER CONTROL PLATE RR DOOR SCUFF LH	TRIM DOOR OPEN TRIM DOOR OPENING TRIM SUB ASSY COWL SIDE LH TRIM SUB ASSY COWL SIDE RH VISOR ASSY LH VISOR ASSY RH

Appendix 4 Motorcycle Parts being Manufactured in Pakistan

BODY PARTS				
SIDE STAND 1 SIDE STAND 2 SPRING TENSION **MAIN STAND** 1 STAND COMP. MAIN 2 HOOK, MAIN STAND SPRING 3 COLLAR, MAIN STAND DISTANCE 4 BOLT, MAIN STAND PIVOT 5 SPRING C, MAIN STAND	**FOOT REST (F & R)** 1 FOOT REST BAR 2 COVER TOOT REST 3 BRACKET-1 (BRACK F/RST) 4 WASHER F/REST (WASHER SP) RR FOOT REST ASSY 5 FOOTRESTRR-1 6 BRACKET-1 7 PIN W/HOLE 8 COVER RR FOOT REST	**HANDLE BAR** 1 HANDLE BAR COMPLETE 2 GRIP.COMP.THROTTLE 3 GRIP LEFT **CABLE SPEEDOMETER & CLUTCH** 1 CABLE SPEEDOMETER (SPEEDOMETER CABLE ASSY.) 2 CABLE CLUTCH 3 COVER LEVER (LEFT	**SIDE COVERS** 1 COVER FRAME RIGHT 2 COVER FRAME LEFT 3 CUSHION FRAME COVER 4 PLATE FRAME COVER 5 CUSHION FRAME COVER 6 TOOL SET 7 MANUAL, OWNERS 8 CASE VINYL 9 TAPE SET FRAME COVER R 10 TAPE SET FRAME COVER L 11 LOCK ASSY. FRAME COVER 12 EMBLEM FRAME COVER	**GEAR SIHFT LEVER** 1 LEVER ASSY. GEAR SHIFT 2 RUBBER GEAR SHIFT PEDAL **RUBBER MOLDINGS** 1 GROMMET, CUSHION, PAD RUBBERS, HOSES, CAPS, ABSORBERS ETC **HEAD LAMP HOUSING** 1 HOUSING HEAD LAMP 2 PLATE HEAD LAMP HOUSING 3 CUSHION HEAD LAMP HOUSING **SEAT ASSEMBLY** 1 SEAT ASSY. DOUBLE
MAIN FRAME 1 BODY COMP. FRAME 2 COVER COMP. DUST PLATE FR 3 COVER COMP. DUST PLATE RR 4 CLIP HIGH TENSION CORD 5 CLAMPER 6 LOCK ASSY. HELMET **FUEL TANK ASSEMBLY** 1 TANK ASSY. FUEL 2 .CUSHION FUEL TANK RR NO. 1 3 CUSHION FUEL TANK RR N0. 2 4 CUSHION FUEL TANK FR. 5 COCK ASSY. FUEL 6 EMBLEM FUEL TANK 7 CAP ASSY. LCK	**FENDER FRONT** 1 FRONT FENDER COMP. 2 HOLDER CABLE (HOLDER WIRE) **FENDER REAR** 1 FENDER, REAR 2 CO 1. LAP, FENDER REAR 3 COLLAR, A. REAR FENDER **HUB COMP. FRONT ASSY.** 1 HUB FRONT 2 INSERT LINING 3 FLANGE SPACER 4 SPACER 5 BEARING R & L 6 OIL SEAL 7 OIL SEAL	**HUB COMP. REAR ASSY.** 1 HUB REAR 2 INSERT LINING 3 FLANGE SPACER 4 SPACER 5 DAMPER (DAMPER CLUCH) 6 O-RING 7 OIL SEAL 8 BEARING R & L **REAR SPROCKET ASSY.** 1 SPROCKET REAR 2 DRUM RR SPROCKET 3 WASHER RR SPROCKET DRUM 4 BEARING SPROCKET DRUM 5 SHAFT RR	**BRAKE PEDAL** 1 PEDAL COMP BRAKE 2 STOP BRAKE PEDAL 3 SPRING BRAKE PEDAL RETURN **LEVER SET KICK STARTER** 1 STARTER A, KICK 2 ARM, KICK STARTER 3 PEDAL, KICK STARTER **BOLTS ENGINE MOUNT** 1 BOLTS ENGINE MOUNTING **TIRE COMPLETE (F & R)** 1 TYRE COMP FRONT 2 TUBE ASSY WHEEL INNER FR. 3 PROTECTOR TUBE INNER FR. 4 TYRE COMP. REAE 5 TUBE ASSY. WHEEL INNER RR 6 PROTECTOR TUBE INNER RR	**CAM FRONT BRAKE** 1 CAM FRONT BRAKE **MIRROR ASSEMBLY REAR** 1 MIRROR ASSY. RR VIEW R 2 MIRROR ASSY. RR VIEW L **CHAIN / CASE COMP.** 1 CASE UPPER HALF DRIVE CHAIN 2 CASE UPPER HALF DRIVE CHAIN 3 CAP, CHIN CASE PEEP HOLE 4 LABEL, TYRE 5 CHAIN DRIVE **SWINGING ARM COMPLETE** 1 SWINGING ARM COMP 2 CAP RR SWINGING ARM 3 CUSHION RR SWINGING ARM PIVOT 4 BUSHING COMP RR

FUEL TANK 8 GASKET FUEL COCK		SPROCKET DRUM 6 SPACER RR SPROCKET DRUM 7 OIL SEAL RR SPROCKET DRUM		SWINGING ARM 5 SHAFT RR SWINGING ARM PIVOT

ROD REAR BRAKE ASSEMBLY 1 1 ROD REAR BRAKE 2 SPRING A, BRAKE ROD 3 JOINT A, BRAKE ARM 4 JOINT B, BRAKE ARM 5 NUT B, BRAKE ROD ADJUSTING **TORQUE LINK** 1 ARM, REAR BRAKE STOPPER 2 SPRING RR. BRAKE TORQUE LINK **CABLE FRONT BRAKE** 1 CABLE BRAKE 2 COVER LEVER **SPACER REAR SHOCK ABSORBER** 1 SPACER RR SHOCK ABSORBER	**SPACER FUEL TANK REAR** 1 SPACER FUEL TANK REAR **AXLE (FRONT & REAR)** 1 AXLE FRONT 2 AXLE REAR **COLLAR AXLE (FR. & RR)** 1 SPACER FRONT AXbE 2 SPACER RR AXLE **CHAIN ADJUSTER** 1 ADJUSTER CHAIN R 2 ADJUSTER CHAIN L **BAND THROTTLE CABLE** 1 CLAMP THROTTLE CABLE	**BRAKE LEVER & CLUTCH LEVER ASSY.** 1 LEVER 1 2 LEVER 2 3 SWITCH HOLDER ASSY. ® 4 SWITCH HOLDER ASSY. (L) 5 SMALL COMPONENTS **CABLE (STARTER & THROTTLE)** 1 CABLE ASSY. THROTTLE 2 CABLE COMP. STARTER 3 DUST SEAL THROTTLE CABLE 4 CLIP CABLE 5 CLIP CABLE 6 CLIP CABLE	**SPEEDOMETER ASSEMBLY** 1 SPEEDOMETER ASSY. 2 BULB MTR 3 BRACKET METER 4 PILOT LAMP 5 SOCKET CORD ASSY. 6 PI LOT LAMP 7 SOCKET CORD ASSY. 8 MAIN SWITCH ASSY. WITH KEY **BRAKE COMP. ASSY. F&R** 1 PANEL COMP. FRONT BRAKE 2 SHOE COMP. FR. BRAKE 3 BUSHING SPEEDOMETER PINION 4 SPRING BRAKE SHOE 5 LEVER ER. BRAKE CAM	**BRAKE COMP. ASSY. F&R** 6 GEAR SPEEDOMETER 7 PINION SPEEDOMETER 8 DUST SEAL ER. BRAKE CAM 9 SHOE COMP. REAR BRAKE 10 CAM REAR BRAKE 11 PANEL COMP. REAR BRAKE 12 SPRING BRAKE SHOE 13 LEVER REAR BRAKE CAM 14 DUST SEAL BRAKE CAM 15 OIL SEAL FRONT BRAKE 1NCHOR PA 16 OIL SEAL SPEEDOMETER CABLE
REAR SHOCK ABSORBER 1 SPRING GUIDE 2 COLLAR BUSH (UPPER & LOWER) 3 LOCK NUT 4 CASE UPPER 5 CASE BOTTOM 6 BUSH B RUBBER (UPPER & LOWER) 7 RUBBER STOPPER 8 BOTTOM BRACKET 9 SPRING LARGE 10 DUMPER ASSY.	**COLLAR B RUBBER** **PLATE END ROD** **CASE COMP** **DAMPER** **O-RING** **SPRING REBOUND** **PISTON** **SEAL, OIL** **VALVE STOPPER** **VALVE SPRING** **VALVE RING PISTON** **GUIDE ROD** **VALVE B**	**HARDWARE** 1 SPACERS, WASHERS, LOCK WASHERS, NUTS, HOLTS, SCREWS, ERINGS, THR. WASHERS, COTTER PINS, DWAL PINS, SPRING WASHERS, CLIPS, AND CIRCLIPS ETC... **RIM (FRONT & REAR)** 1 RIM FRONT 2 RIM REAR **SPOKRS & NIPPLES** 1 SPOKES WHEEL INNER FRONT 2 SPOKES WHEEL OUTER FRONT 3 NIPPLE SPOKE WHEEL	**FRONT FORK** 1 OUTER TUBE SETR 2 OUTER TUBE SET L 3 UNDER BRACKET SET 4 UPPER BRACKET SET 5 HOLDER 6 COVER GUIDE 7 PACKING 8 RACE STEERING INNER 9 RACE STEERING UPPER 10 DUST SEAL STEERING UPPER 11 FORK COVER R 12 FORK COVERL 13 OUTER COVER R 14 OUTER COVERL 15 REFLECTOR ASSY. 16 BALLS STEERING STEEL 17 LOCK ASSY	**GRAPHICS** TAPE SET FUEL TANK STRIPING **MISCELLANEOUS ITEMS:** SPACE, OIL TANK CUSHION COVER HUH DUST SEAL OIL TANK ASSY. COMPLETE 1 TANK OIL 2 CAP OIL TANK FILTER. 3 GASKET OIL TANK FILLED NO. 1 4 GASKET OIL TANK FILLER NO. 2 5 CUSHION OIL TANK 6 GASKET OIL LEVER SWITCH 7 SWITCH ASSY OIL LEVER

		FRONT 4 SPOKES WHEEL INNER REAR 5 SPOKES WHEEL OUTER REAR 6 NIPPLE SPOKE WHEEL. REAR	STEERING.	CLAMP OIL HOSE NO. 1

ENGINE PARTS				
CYLINDER HEAD + CYLINDER COMP. 1 CYLINDER HEAD + CYLINDER COMP. CLUTCH 1 CLUTCH ASSY. 2 COVER CLUTCH OUTTER **3 CENTRE CLUTCH** 4 GUIDE CLUTCH CENTRE 5 COVER ASSY. CLUTCH 6 PLATE CLUTCH LEFTER 7 PIN CLUTCH LEVER STOPPER 8 THROUGH OIL 9 COLLAR 10 CIRCLIP 11 GUIDE OIL THROUHG 12 PUSH ROD COMP. CLUTCH	**CARBURATOR** 1 CARBURATOR ASSY. 2 INSULATOR ASSY. CARBURATOR **GEARING** 1 GEAR 2ND PINION 2 GEAR 3RD PINION 3 GEAR 4TH PINION 4 GEAR 1ST WHEEL 5 GEAR 2ND WHEEL 6 GEAR 3RD WHEEL 7 GEAR 4TH WHEEL 8 SPROCKET DRIVE 9 GEAR KICK STARTER IDLE 10 GEAR KICK STARTER 12 GEAR PUMP DRIVE 13 GEAR PRIMARY DRIVE	**SHAFTING** 1 SHAFT COUNTER FORGING MACHINING 2 SHAFT DRIVE FORGING MACHINING 3 SPINDLE ASSY. GEAR SHIFT 4 SPINDLE CAM CHAIN GUIDE SPRKT / SHAFT WORM SHAFT WORM 5 SHAFT ROCKER ARM	TRANSMISSION COMPONENT 1 FORK GEAR SHIFT NO. 1 2 FORK GEAR SHIFT NO. 2 3 PIN GEAR SHIFT FORK NO. 1 4 PIN GEAR SHIFT FORK NO. 2 5 PIN GEAR SHIFT CAN DRIVE 6 CAM GEAR SHIFT 7 ROLLER GUIDE PIN 8 GUIDE GEAR SHIFT CAM 9 STOPPER GEAR SHIFT COMP. 10 RETAINER GEAR SHIFT CAM DRIVE 11 PLATE SHIFT DRUM STOPPER 12 PLATE SHIFT DRUM SIDE. 13 PLATE CONTACT FIXING 14 PIVOT SHIFT DRUM STOPPER ARM 15 ARM COMP. CAM CHAIN TEXNSNR.	**SHIFTER / FORK & OTHER BEARING HALLS / NEEDLE / ROLLER** 1 BEARING CRANK PIN 2 BEARING CRANK SHAFT L OUTER 3 BEARING CRANK SHAFT L INNER 4 BEARING PISTON PIN 5 BEARING CRANK SHAFT R 6 BEARING COUNTER SHAFT R 7 BEARING COUNTER SHAFT L 8 BEARING DRIVE SHAFT 9 BEARING KICK STARTER **KICK STARTER** 1 KICK SHAFT ASSY. 2 HOLDER KICK GEAR 3 STOPPER 4 SPACER 5 COVER SPRING KICK
AIR CLEANER BODY 1 CASE AIR. CLEANER 2 CAP CASE 3 STAY AIR CLEANER (STAY-1) 4 CLAMP HOUSE 5 CLAMP 11 OS I 6 STAY - 1 7 SEAL 8 JOINT - 1 9 JOINT AIR CLEANER **FILTERS** 1 PREFILTER AIR CLEANER	**CASKETS INCLUDING CYLINDER HEAD** 1 GASKET CYLINDER HEAD 2 GASKET CLUTCH OUTER COVER 3 GASKET CLUTCH COVER 4 GASKET R CRANK CASE COVER 5 GASKET CYLINDER 6 GASKET CRANK CASE 7 PACKING DRAIN COCK 8 GASKET OIL	**MUFFLER** 1 PIPE COMP. EXHAUST 2 MUFFLER ASSY. 3 PIPE COMP. BAFFLE 4 COVER COMP. MUFFLER 5 CONNECTOR MUFFLER **GENERATOR MEGNETO** 1 MAGNETO ASSY. 2 KEY /STATOR BASE MAGNETO **ELECTRICS** 1 HIGH TENSS10N CORD	**OIL PUMP** 1 PUMP SET OIL 2 PICK OIL PUMP DRIVE 3 CHECK VALVE COMP. INLET 4 TERMINAL CABLE **NUTS / BOLTS WASHERS / RETAINERS SPRINGS** 1 SPRING CLUTCH 2 SPRING KICK STARTER PEDEL 3 SPRING KICK STARTER PAWL 4 SPRING CLUTCH RELEASE	**OIL SEALS & 0-R1NGS ETC.** 1 O-RING ENGINE SPROCKET 2 OIL SEAL SHAFT DRIVE 3 OIL SEAL GEAR SHIFT SHAFT 4 OIL SEAL KICK STARTER 5 OIL SEAL CRAN SHAFT L 6 O-RING ROTARY VALVE SEAT NO.I 7 O-RING ROTARY VALVE SEAT' NO.I 8 O-RING ROTARY VALVE

	PUMP BODY 9 GASKET 1. CYLN HEAD SIDE COVER 10 GASKET INLET PIPE 11 GASKET R CYLN HEAD SIDE COVER 12 GASKET CYLINDER HEAD COVER 13 GASKET EXHAUST PIPE	2 CDI UNIT ASSY. 3 IGNITION COIL 4 BODY GEAR SHIFT SWITCH 5 SPARK PLUG	RETURN 5 SPRING KICK STARTER 6 SPRING GEAR SHIFT CAM STOPPER	SEAT NO.I 9 OIL SEAL CLUCH ROD 10 GROMMET Oil. HOSE NO. 1 11 HOSE COMP OIL NO. 2 12 O-RING CHECK VALVE OTHERS/PLAIN HEARING
COVER CRANKCASE R & L 1. COVER L CRANK CASE 2. COVER COMP r CRAN CASE COVER OTHERS 1 CAP MAGNETO INSPECTION 2. COVER COMP ENGINE SPROCKET 3. CAP CARBURATOR INFECTION 4. CAP OIL PUMP INSPECTION 5. COVER CARBURATOR TOP 6. MOLE CARBURATOR TOP 7. COVER L CYLINDER HEAD SIDE 8. COVER RCYLINDER HEAD SIDE 9. COVER CYLINDER HEAD 10. CAP MGNETO COVER SEAL	CRANCASE 1. CRANKCASE L 2. CRANCASE R CRAN SHAFT 1. PLATE CRANK SHAFT OIL GUIDE 1. PLATE CRANK SHAFT OIL GUIDE 2. CRANK SHAFT R 3. CRANK SHAFT L 4. PIN CRANK CONNECTING ROD 1. ROD CONNECTING PISTON COMPLETE PIN PISTON CIRCUP PISTON EXP	PISTON RING 1 RING PISTON TOP 2. RING PISTON 2ND 3. RING PISTON OIL VALVE TRAIN 1. VALVECOMP ROTARY 2. GUIDE ROTARY VALVE 3. SEAT SET ROTARY VALVE OUTER 4. SEAT SET ROTARY VALVE INNER 5. VALVE INLET 6. VALVE EX ENGINE ASSY & TESTING		
ELECTRICAL PARTS				
HORN ASSY. 1 STAY HORN 2 SUB. HARNESS HORN 3 HORN COMPLETE **SWITCH ASSY. STOP LAMP** 1 SWITCH ASSY STOP LAMP 2 GROMMET STOP LAMP SWITCH 3 SPRING STOP LAMP SWITCH **TURN SIGNALS** 1 LAMP ASSY FRONT TURN SIGNAL 2 LAMP ASSY REAR TURN	**BATTERY** 1 BATTERY ASSY 2 TUBE BATTERY BRETHER 3 BAND BATTERY 4 PLATE BATTERY STOPPER 5 MARK CAUTION **WIRE HARNESS** 1 WIRE HARNESS 2 CLAMP WIRING HARNESS 3 LEAD WIRE 4 CLIP WIRING HARNESS 5 CLAMP WIRING HARNESS 6 BAND HANDLE SWITCH 7 CLAMP WIRING HARNESS	**REAR COMBINATION LAMP** 1 LENCE TAIL LIGHT 2 BASE. COMPLETE TAIL 3 CORD COMPLETE TAIL LIGHT 4 PACKING TAIL LIGHT LENCE 5 COLLAR TAIL LIGHT SET 6 COVER NUMBER BRACKET 7 COLLAR NUMBER BRACKET 8 BRACKET NUMBER PLATE	**HEAD LAMP ASSY.** 1 RIM HEAD LIGHT 2 SCREW BEAM ADJUST 3 SPRING BEAM ADJUST 4 SPRING UNIT HOLDER 5 NUT BEAM ADJUST 6 WASHER BEAM ADJUST 7 LENCE WITH REFLECTOR 8 COLLAR HEAD LIGHT SETTING 9 SOCKET ASSY. HEAD LIGHT	**BODY GEAR SHIFT SWITCH** 1 BODY NEUTRAL SWITCH 2 GASKET NEUTRAL SWITCH **RECTIFIER** 1 RECTIFIER REGULATOR ASSY. 2 PLATE REGULATOR 3 DAMPER **RELAY ASSY. TURN-SIGNAL** 1 RELAY ASSY. TURN-SIGNAL **FUSE CASE ASSY.** 1 FUSE CASE ASSY. **BULB** 1 BULB SET

SIGNAL 3 BRACKET REAR TURN SIGNAL R 4 BRACKET REAR TURN SIGNAL R				

Appendix 5 Major Technical Collaborations by Automotive Components Manufacturers

S. No.	Components	Vendors in Pakistan	Collaboration with
1	Shock Absorbers	Honda Atlas Services	Showa Corporation, Japan
2	Radiators	Allwin Engineering industries Ltd	U.E. Radiators, Japan
3	Sanden car Air Conditioners	Sanpak (Pvt.) Ltd.	Sanden, Japan
4	Shock Absorbers	Agriauto Industries Ltd.	Kayaba, Japan
5	Radiators	Loads (Pvt.) Ltd	Toyo Radiators, Japan
6	Radio Cassette Players	Automate Industries Ltd.	Panasonic, Thailand
7	Denso car Air Conditioners	Thal Engineering (Pvt.) Ltd.	Nippo Denso, Japan
8	Automotive Glass	NGS Pakistan (Pvt.) Ltd.	NGS< Japan
9	Automotive Lamps	Technopak (Pvt.) Ltd	Koito, Japan
10	Spark Plugs	Shaigan Elect. & Engg. Ltd	. NGK, Japan
11	Steering Case Set	Polymer & Precision (Pvt.) Ltd.	I. S. Seiseki, Japan
12	Brake Drum Assy.	Alson Auto Industries Ltd.	Nissin Kogyo, Japan
13	Gaskets	Agriauto Industries Ltd.	Richard Klinger, UK
14	Camshafts	Agriauto Industries Ltd.	Zephyrs Cams/Camtec, UK
15	Gabriel Shock Absorbers	Agriauto Industries Ltd.	Maremount Corporation, Chicago
16	Iron and Aluminimium Parts	Allwin Engineering (Pvt.) Ltd	. Associated Engg. PLC, England
17	AGS Radiators	Atlas Battery Limited	Japan Storage Battery Co
18	AxleS for trucks/buses	Axle Products Limited	Raba PLC, Hungary
19	Wire Harness	Thal Engineering Ltd.	Furukawa, Japan
20	Propeller Shaft and Gear Shift Lever	Noor Engineering Ind. Ltd	. Hamana Parts Manufacturing, Japan
21	Locks	General Locks (Pvt.) Ltd.	Honda Lock Co., Japan

(Source: Expert Advisory Cell Survey of Industrial Sectors 2001 & PAAPAM 2005)

Furthermore, a good number of technical agreements have been finalized but not yet implemented. Intensity of Japan origin technical collaborations show that an encouraging amount of Japanese technology has been transferred to Pakistan's auto parts sector.

Appendix 6 Profile of Auto Assemblers

Assembler Name	Plant location	Parent Co./Joint Venture/Technical Collaboration	Products	Production Capacity /annum
Hinopak Motors Ltd.	Karachi	Joint venture between Bibojee Group of Pakistan and A1-Futaim Industries, Dubai (59% shares), Hino Motors, Japan and Toyota Tsushu, Japan	Hino buses Hino Trucks Hino mini buses	2600 units
Ghandhara Nissan Diesel Ltd. (GNDL)	Karachi	Technical collaboration between Bibojee Group of Pakistan and Nissan Diesel, Japan	UD/Nissan Buses UD Nissan Trucks	1800 units
Ghandhara Industries Ltd. (Formerly National Motors Ltd.)	Karachi	Technical cooperation agreement between Bibojee Group of Pakistan and Isuzu Motors, Japan	Isuzu buses Isuzu trucks	2400 units
Sind Engineering (Pvt) Ltd.	Karachi	Technical cooperation with Mazda corporation, Japan	Mazda mini trucks Mazda mini buses	3000 units
Pak Suzuki Motor Co Ltd.	Karachi	72,82% shares and management held by Suzuki Motor Corporation, Japan	Suzuki cars and Suzuki motorcycles	50,000 units
Indus Motor Co Ltd.	Karachi	Joint venture between Habib Group of Pakistan and Toyota Tsusho, Corporation, Japan	Toyota car & LCVs Daihatsu Cuore car	20,000 units
Honda Atlas Cars (Pak) Ltd.	Lahore	Joint venture between Atlas Group of Pakistan and Honda Motor Co, Japan	Honda cars	10,000 units
Ghandhara Nissan Ltd. (GNL)	Karachi	Technical cooperation agreement between Ghandhara Group of Pakistan and Nissan Motor Co., Japan	Nissan Sunny cars	10,000 units
Daihatsu Motor Ltd.	Karachi	Joint venture between Indus Motor Co. Pakistan and Daihatsu Motor, Japan	Daihatsu Cuore cars	10,000
Dewan Farooq Motors Ltd.	Karachi	Technical cooperation agreement between Dewan group of Pakistan and Hyundai corporation, South Korea	Hyundai cars & LCVs Kia cars and LCVs	10,000 units
Raja Motors Ltd.	Karachi	Technical cooperation agreement between Raja Group of Pakistan and Fiat Auto spa Italy	Fiat cars	10,000 units
Millet Tractors Ltd	Lahore	Technical collaboration with Massey Fergusen, UK	Massey Fergusen Tractors	15,000 units
Al-Ghazi Tractor Ltd.	Dera Ghazi Khan	Technical collaboration with Fiat	Fiat Tractors	15,000 units

Assembler Name	Plant location	Parent Co./Joint Venture/Technical Collaboration	Products	Production Capacity /annum
G.M Tractor Ltd.	Karachi		Universal Tractor	3,000 units
Atlas Honda ltd.	Karachi	Joint venture between Atlas Group of Pakistan and Honda Motor Co., Japan	Honda motorcycles	100,000 units
Dawood Yamaha Ltd.	Karachi and Islamabad	Technical cooperation agreement between Dawood Group of Pakistan and Yamaha Corporation, Japan	Yamaha Motorcycles	50,000 units
Suzuki Motorcycles (Pvt) Ltd.	Karachi	Joint venture with Suzuki Motor corporation, Japan	Suzuki motorcycles	12,000 units
Sohrab Motorcycles Ltd.	Lahore		Sohrab motorcycles	25,000 units
Saigol Qingqi Motors Ltd.	Lahore	Joint venture between Saigol Group of Pakistan and Qingqi, China	Qingqi motorcycles Qingfqi three wheelers	40,000 units
Raja Auto cars Ltd.	Karachi	Technical cooperation between Raja Group of Pakistan and Vespa, Italy	Vespa scooters Vespa three wheelers	15,000 units