

RESEARCH REPORT

No. 169

Growth Potential of Small and Medium Industries in Pakistan

Zafar Mahmood

**Pakistan
Institute of
Development
Economics**

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1. INTRODUCTION

Since independence Pakistan pursued the path of industrialization with objectives of absorbing surplus labour, and bringing about a balanced regional growth. Despite rapid growth of the GDP, employment opportunities have been quite inadequate to absorb the rapidly increasing labour force in Pakistan. Inward-looking policies coupled with fiscal incentives, mostly to the large-scale industries (Lis) in the manufacturing sector have resulted into allocation of resources towards the capital-intensive activities and adoption of highly capital-intensive techniques which generated few employment opportunities and aggravated the balance of payments disequilibrium with a heavy dependence on imports. To date there is no explicit policy framework, which exist for small- and medium-sized industries (SMIs).¹ It was never thought that SMIs are capable of exhibiting any dynamism. These enterprises have been expected to develop automatically with the development of the Lis. However, the unemployment and lower income resulting from radical nationalization policy and labour unrest in large unionized manufacturing sector in the early 1970s, provided an unintentional stimulus for the growth of SMIs.

With this perspective on industrialization in Pakistan, the development of the SMIs is now being considered as a more appropriate alternative to promote industrialization. In fact the SMIs are now playing an important role for Pakistan. Their significant contribution in production and employment, coupled with significant shares in exports, has made them a potential source of sustainable growth and development. For the past three decades the fastest-growing export industries have been dominated by the SMIs—carpets, textiles and clothing, surgical instruments, sports goods, plastic goods and electric fans.

One of the important features of the SMIs is their capability of operating autonomously on the strength of sub-contractual relationship with other firms in the SMI sector itself and with Lis. These relationships are both vertical and horizontal. Interestingly, though limited, the development of these relationships have given rise to the spatial and sectoral agglomeration of the SMIs, in the form of integrated plant, through production based networking.

¹ The recent initiative by the Government in the form of small and Medium Enterprises Development Authority (SMEDA) is a first step to develop a comprehensive policy framework to promote SMIs.

Dynamic and flexible SMIs have served not only to create employment and earn foreign exchange, but also to upgrade the quality of the workforce, improve the business management skills, and diffuse technological know-how throughout the economy. These enterprises have also helped to mobilize domestic resources towards productive use which otherwise may have remained idle and unutilized. These enterprises are not only serving domestic low-income consumers, they are also producing a wide variety of quality goods for international market and intermediate goods for the LIs.

Interestingly, the clusters of light engineering units in the cities of Gujral and Gujranwala, of surgical instruments and sports goods in Sialkot, and of textiles in Faisalabad, not only has helped the SMIs to avail the benefits of economics-of-scale but has also created a "specialized" labour market for employers and has lowered the job costs for labour. Consequently, these links have led to inter-firm based division of labour and production to produce better quality products.

Against the positive aspects of the SMIs, it is generally argued that they experience larger unit cost of production despite low labour cost because of the absence of economics-of-scale. While some of these units survive due to efficiency in the resource use, and linkages, others survive, despite being inefficient, merely by evading taxes and circumventing state regulations including labour laws.

The objective of the present study is to evaluate critically the growth potential of the SMIs and to identify industrial activities at the national level in which they play a significant role in terms of their contribution to the GDP, exports, employment and technology diffusion. The study also provides an assessment of new industrial activities where the export-oriented SMIs can inject new dynamism and examine possibilities for linkages and other avenues for cooperation of these industries with similar industries in other countries of the region and extra region.

The study is divided into nine sections. Section II presents an overview of economic development in Pakistan. Section III provides a comprehensive overview of the nature and importance of export-oriented SMIs in the industrial sector of Pakistan. In Sections IV to VII the experience and importance of SMIs in textiles, leather, light engineering goods and electronics, respectively, are analysed. Finally, Section IX concludes the study with some recommendations for strategic directions and policy.

2. NATURE AND IMPORTANCE OF EXPORT-ORIENTED MANUFACTURING SMIs

Since the early 1950s, Pakistan has moved from an agricultural and primary-commodity producing dependent economy to one in which now the manufacturing sector accounts for over 18 percent in the GDP, 68 percent in

exports² and about 11 percent in total employment. Despite the impressive performance of the manufacturing industries, a number of structural weaknesses undermined the sustainability of its growth and heightened Pakistan's vulnerability to external shocks. These weaknesses include the narrowly based industrial structure, a low level of industrial linkages, lack of diversification in exports, poor technology and skills, and inflexible and static manufacturing sector. Following subsections provide an overview of Pakistan's industrial structure in terms of size, output, ownership, product range, capital structure, and level of technology.

(i) Definition of SMIs, Characteristics, and Contribution in the Economy

There is no legal, or single, clear-cut definition of what constitutes SMIs in Pakistan. For the purpose of the present study we define small industries (Sis) as those firms which employ 10 to 49 workers, and medium enterprises (Mis) as those firms which employ workers between 50 and 99. All of the firms are registered firms.

The SMIs accounted for about 78.9 percent of the manufacturing establishments in 1990-91.³ The table shows that out of the total 4,792 manufacturing establishments, 3,243 (67.7 percent) were small enterprises; 536 (11.2 percent) were medium enterprises and 1,013 (21.1 percent) were large enterprises.

A comparison of the SMIs and Lis in terms of their employment absorption and contribution to value-added and labour productivity, can be made through Table 1.⁴ Collectively, the SMIs accounted for 16.0 percent of total employment and 13.1 percent of the total value-added. Sis while comprising 67.7 percent of total manufacturing establishments, absorbed 10.0 percent of the labour force and contributed 7.6 percent of value-added. Mis while comprising

Table 1

Structure of SMIs in Pakistan, 1990-91

Enterprise	Number	% age	Employment	% age	Value-added		Value-added per Worker (000 Rs)
					(Rs0tX)	% age	
Small	3,243	67.7	62,240	10.0	8,476,000	7.6	136.2
Medium	536	11.2	37,245	6.0	6,092,758	5.5	163.6
Large	1,013	21.1	522,700	84.0	96,440,000	86.9	184.5
Total	4,792	100	622,234	100	111,006,408	100	178.4

Source: Author's estimates based on Census of Manufacturing Industries, 1990-91, Federal Bureau of Statistics.

² Besides, 21 percent of exports account for semi-manufactured goods.

³ It may be noted that the latest available Census of Manufacturing Industries is for the year 1990-91.

⁴ Labour productivity is defined as value-added per worker.

11.2 percent of total manufacturing establishments, absorbed 6.0 percent of the labour force and contributed 5.5 percent of value-added. The Lis absorbed 84.0 percent of the labour force in manufacturing industries and contributed 86.9 percent of value-added. This suggests that SMIs although consisting of about 79.0 of total manufacturing establishments have very low contribution to value-added. However, their contribution in terms of employment generation is relatively significant.

Despite their numerical dominance, the SMIs accounted for a relatively small proportion (13 percent) of value-added of all the organised sector establishments. Interestingly, of the three sizes, Lis turned out to be most productive followed by Mis and Sis. Despite low productivity the SMIs are surviving by paying lower wages to their workers. (See Table 4).

Table 2 presents the sectoral structure and value-added contribution of the SMIs in Pakistan. Traditionally, the SMIs have concentrated in those products more amenable to small and medium scale production requiring relatively less capital and catering mostly to local market demands. Consequently, the SMIs have tended to concentrate more on food, beverage and tobacco (20 percent), textiles (21.4 percent) chemicals (10.4 percent), and metal products (19.4 percent). Rest of the industries accounted for 29 percent of establishments.

Table 2

*Distribution of Firms by Size of Employment, Value-added
and by Industry, 1990-91*

(Value in million Rs.)

Industry	Small		Medium		Large	
	No. of Firms	Value-added	No. of Firms	Value-added	No. of Firms	Value-added
Food, Beverage.						
Tobacco	669	2419	91	1485	164	20300
Textiles	710	1321	98	132	327	27098
Leather, Footwear	59	130	12	149	33	1439
Wood and Furniture	71	151	13	58	14	261
Paper and Printing	132	260	21	306	31	3691
Chemicals	326	1532	66	1474	144	18661
Mineral Products	94	78	11	66	56	8272
Basic Metal	152	457	28	257	21	5460
Metal Products	632	899	101	758	146	9797
Other						
Manufacturing	398	1230	95	707	77	1460
Total	3,243	8476	536	6093	1013	96478

Source: Author's estimates based on Census of Manufacturing Industries, 1990-91, Federal Bureau of Statistics.

Because of the dominance of Sis in terms of establishments in SMIs, concentration of products in Sis turns out to be same as reported above for total SMI sector. About 73 percent of Sis are concentrated in four major product groups: textiles (22 percent), food, beverage and tobacco (21 percent), metal products (19.5 percent), and chemicals (10 percent).

Interestingly, the Mis have quite similar product concentration pattern as that of Sis, where metal products accounted for 19 percent followed by textiles (18 percent), food, beverage and tobacco (17 percent), and chemicals (12 percent).

(ii) Trends and Performance

Table 3 presents the basic characteristics and performance of the SMIs and the Lis in terms of value-added, employment, salaries and wages paid and fixed assets for the year 1980-81, 1985-86, 1986-87 and 1990-91. The SMIs accounted for 16.0 percent of total formal sector manufacturing employment, 13.1 percent of total manufacturing value-added and 11.5 percent of manufacturing fixed assets in 1990-91. The corresponding values for the year 1980-81 were 16.3 percent, 14.7 percent, and 11.8 percent, respectively. Comparison of these two years' reveals that the share of the SMIs in terms of employment, value-added and fixed assets has gone down. Table 3 also shows that the relative importance of the SMIs have also declined in terms of their share of establishments from 79.4 percent in 1980-81 to 78.9 percent in 1990-91. This is an indication that some of the SMIs have graduated to Lis. But at the same time one can not ignore the possibility that some of them may have even closed their business. In fact, SMIs are part of the declared pool of sick units.

Table 3

Major Indicators of Industries by Size

(Value in Million Rs.)

Scale	No. of Establishments	'/age	Value-added	%age	Employment	'/age	Wages	'/age	Fixed Assets	'/age
1980-81										
Small	2075	66.9	2262	7.9	46123	10.3	461	8.2	1536	6.9
Medium	387	12.5	1925	6.8	26743	6.0	312	5.6	1117	4.9
Large	638	20.6	24335	85.3	374172	83.7	4816	86.2	19915	88.2
1985-86										
Small	2273	65.4	4059	7.4	50849	10.1	921	7.7	3703	5.1
Medium	425	12.2	2726	5.0	29840	6.0	647	5.4	2506	3.4
Large	781	22.4	47991	87.6	420320	83.9	10438	86.9	66772	91.5
1986-87										
Small	2409	64.7	5792	7.8	53991	10.6	1240	7.6	4650	5.3
Medium	472	12.7	3437	4.7	32833	6.5	872	5.5	4269	4.8
Large	841	22.6	64359	87.5	421584	82.9	13645	86.6	79742	89.9
1990-91										
Small	3243	67.7	8476	7.6	62240	10.0	2010	7.6	7726	6.2
Medium	536	11.2	6093	5.5	37245	6.0	1453	5.5	6639	5.3
Large	1013	21.1	96438	86.9	522749	84.0	23084	86.9	111254	88.5

Source: Author's estimates based on Census of Manufacturing Industries, 1990-91. Federal Bureau of Statistics.

On the other hand, in terms of major performance indicators; viz., labour productivity and wages the Lis are performing better as compared to the SMIs. Of all the sizes the Lis observed the highest growth in labour productivity and wages. However, Lis' strength to absorb workers has weakened over time. This shows that either the Lis are now hiring more qualified and professional workers because they have moved up to higher stage of production or they are now using more sophisticated technologies which require greater use of higher skills. (See Table 4).

Relatively low performance in terms of labour productivity and wage payments in no way suggests that growth in productivity of SMIs has diminished. They have recorded growth in both productivity and wages. (See Table 4). Although Sis have shed workers per establishment, Mis were able to absorb more workers per establishment.

Table 4

Performance Indicators of Manufacturing Industries

(Values in Rs. at Constant Prices of 1980-81)

Scale	Employment per Establishment	Value-added per Worker	Wage Rate	Fixed Assets per Worker	Value-added per Fixed Asset	Wages per Value-added
1980-81						
Small	22.2	49040	9993	33309	1.47	0.20
Medium	69.1	71998	11674	41750	1.72	0.16
Large	586.5	65037	12871	53225	1.22	0.20
Total	144.2	63803	12503	50483	1.26	0.20
1987-88						
Small	22.4	48201	10639	38702	1.25	0.22
Medium	69.6	47042	12303	58417	0.81	0.26
Large	510.3	68594	14994	84989	0.81	0.22
Total	136.6	65036	14358	78358	0.83	0.22
1990-91						
Small	19.2	66722	15820	60813	1.10	0.24
Medium	69.5	80145	19106	87325	0.92	0.24
Large	516	90384	216.33	104260	0.87	0.24
Total	129.8	87395	20900	98900	0.88	0.24
Growth (1980/81 over 1990/91)						
Small	-1.4	3.1	4.7	6.2	-2.9	1.8
Medium	0.1	1.1	5.0	7.7	-6.1	4.1
Large	-1.3	3.3	5.3	7.0	-3.3	1.8
Total	-1.1	3.2	5.3	7.0	-3.5	1.8

Source: Author's estimates based on Census of Manufacturing Industries, 1990-91, Federal Bureau of Statistics.

Capital-labour ratio, as measured by fixed assets per worker, has increased irrespective of the industry size reflecting the greater use of capital-intensive techniques of production and a restructuring towards the industries requiring greater use of capital per worker. Interestingly, injection of new capital could not increase value-added per capital. This is an indication of under utilisation of capital or inefficient use of capital.

It can be further noted from Table 4 that while as wages per value-added for Mis have gone up sharply as compared with other two sizes, growth in labour productivity recorded by Mis has been rather slow. This is an indication that the Mis are still in the process of restructuring towards more capital-intensive production process, which is yet to generate higher production. The Mis will have to watchful so as they get high production per worker in future lest they will lose their competitive strength at the market place.

3. OWNERSHIP OF INDUSTRIES

Table 5 reports the ownership structure of manufacturing industries as a whole. It can be noted that only six industrial groups have significant equity participation from foreign collaborators.⁷ These include, food, beverage and tobacco, chemicals, non-metallic minerals, wood and furniture, basic metals, and metal products (including electronics and engineering goods). In textiles and paper and printing industries, very important for SMIs, foreign equity participation is very low.

Table 5

Ownership of Industries, 1990-91

Industry	Total Equity (000 Rs)	Percentage Share of Pakistani Firms	Percentage Share of Joint/Foreign Firms
Food, Beverage, Tobacco	17342076	96.5	3.5
Textiles and Leather	43025862	99.1	0.9
Wood, Furniture	608984	96.9	3.1
Paper and Printing	3350201	98.9	1.1
Chemical	15513823	85.4	14.6
Non-metallic Minerals	12348468	93.8	6.2
Basic Metal	23782336	98.0	2.0
Metal Products	9310630	97.4	2.6
Total	125619857	96.47	3.53

Source: Author's estimates based on Census of Manufacturing Industries, 1990-91, Federal Bureau of Statistics.

⁷All of the foreign equity participation is in the large-scale industries.

4. CAPITAL STRUCTURE AND LEVEL OF TECHNOLOGY

The growth experience of the East Asian countries shows that their unprecedented growth rates are due mainly to the fact that their total factor productivity (TFP) has been the highest in the world. Notwithstanding this fact, the TFP growth in the organised manufacturing sectors of Pakistan shows a modest improvement in competitiveness during the 1972 to 1997 period. During this period the average annual growth in total factor productivity was 1.79 percent.⁶ Thus the contribution of technical change and other qualitative improvements to growth was small. This is not surprising given the status of science and technology apparatus and quality of human resources in Pakistan. Many other factors were also responsible for this outcome. For instance, productivity in manufacturing increased during the Fifties because the industries overcame the cost disadvantages, they suffered at the 'infant' stage; major gains during the Sixties were the result of the exposure of domestic manufacturers to foreign markets, deregulation, import liberalization, and learning-by-doing; productivity declined in the Seventies was mainly due to the economy's inability to switch to energy-saving techniques of production in response to the rising prices of energy and nationalization of the Lis; the productivity gain in the Eighties was due to the induction of an improved technology, and liberalization of imports, investment and foreign exchange markets.⁷

Pakistan's economic development policies have always favoured capital-intensive technology choices. Even the allocation of subsidized credit for the SMIs has stimulated the choice of more capital-intensive technologies. Evidence suggest that Pakistan marks relatively low among similar other Asian countries because of low per capita number of science and technology personnel (total number of Ph.Ds in Pakistan were 1,843 in 1996), low expenditure on research and development – the allocation of R&D is less than 0.2 percent of the GNP as against 1 percent recommended by UNESCO – and a general technological climate which is not very supportive to the SMIs development.

Ironically, the Sis in the light engineering sector have been limited to basic maintenance and repair units. There is very little capacity to manufacture spare parts locally. Hardly any efficient machine tool industry, and virtually no engineering innovation beyond the most rudimentary exist in Pakistan. Even large-scale plants imports their own repair facilities. Very few rely on an indigenous and small-scale production capacity and capability for spare parts. Consequently, Pakistan is critically hindered in the production of technology. The lack of a sound technological base will be harmful for the growth and sustainability of both the SMIs and the Lis in the long run.⁸

⁶ See, Mahmood and Siddiqui (1999).

⁷ See, Kemal and Ahmad (1992).

⁸ See, Tomesen and Thomas (1992).

The contribution of manufacturing industries in technology diffusion is very low. For instance, the model of the sewing machine presently manufactured in Pakistan is 110 years old, whereas in the world revolutionary changes have taken place in the designs.

Although, now at the SMIs level the Government in collaboration with Swiss and Dutch governments have started a process of technology diffusion by opening up various institutions, yet dissemination of appropriate technologies remains inadequate, especially at the SMIs level.

At the Lis level in order to promote transfer of technology, "deletion programmes" were introduced for engineering industries in 1987—building linkage between various branches of industry and attaining a degree of self-reliance. Under a deletion programme, the entrepreneur undertakes to use an increasingly higher portion of components for the production of certain products, subject to specific incentives relating to lower than statutory tariffs on "industrial" imports of raw materials and components. The programme to be followed by the entrepreneur is formulated in consultation with the Government, the entrepreneur and representatives of the industry concerned, taking into account the nature and potential of the industry, the regional or local engineering base, and the available and possible level of technology, especially that which might be transferred from abroad. Only such items are included in programmes that can be developed domestically or for which the technology can be obtained abroad and provided that the items can be produced domestically on cost effective basis. Deletion programmes are open equally to both foreign and dogmatic investors.

At present Pakistan implements deletion programmes in respect of automobiles, electronics, electrical products and engineering items. The deletion policy has had a positive impact on Pakistan's industrial development; under different deletion programmes, the share of locally produced components had reached 47 percent in passenger car production (800 cc), trucks and buses 50 percent electric pumps 95 percent, electric motors 100 percent, electricity meter 85 percent, deep freezers 80 percent, switch gears 75 percent, sugar plants 79 percent, motor cycles 74 percent and packaged air conditioners 61 percent and 80 to 84 percent in tractor production; and in all, the programmes have created about 100,000 jobs, a good part of this job creation is in the SMIs.

Against the attractive features of the deletion policy, government policy remains inconsistent towards the SMIs. For instance, recently the government permitted the Pak-Suzuki Motors company to introduce a new model; thereby rendering a number of local vend units mostly the SMIs obsolete and, at the same time, rolling back the indigenization programme. This is not to say that model upgradation should not be encouraged. Model changes after a few years and coordination of the change with vendor units would ensure greater stability of the vendor industry.⁹ Pakistan is going to abandon this programme because it

⁹ See, Freidrich Ebert Stiftung and Swiss Development Corporation (1992).

has committed with the WTO to abolish this programme after year 2000 under the agreement on trade-related investment measures. This will have negative implications, particularly for the SMIs, as a source of transfer of technology will be lost.

5. IMPORTANCE OF THE SMIs IN TRADE

The share of manufactured goods in total exports has constantly been increasing which is an indication of the fact that the country is industrializing and more export earnings are now accruing from the export of manufactured goods. It may be noted that the share of semi-manufactured and manufactured goods export in 1975-76 was 56. percent which has increased to 89 percent in 1994-95. According to some 'guesstimates' about 40 percent of Pakistan's total exports originate from the SMI sector.¹⁰

6. THE SMIs RESPONSE TO CHANGING GLOBAL ENVIRONMENT AND POLICY CHANGE IN PAKISTAN

Having analysed the general characteristics of the SMIs we now focus on the experience in the development of export-oriented SMIs. In particular we evaluate how these SMIs have responded to the emerging global and regional need for industrial restructuring resulting from changing cost structure, currency volatility, technological process and pressures on infrastructure, and how they have been able to sustain apparent competitive advantage.

In Pakistan like many other developing countries the effect of changing global environment and growing regionalism was felt since the mid-1980s. This period also coincides with the Programme of Structural Adjustment which the country initiated with the help for the IMF and the World Bank. But the absence of data for the period makes it difficult to assess the effects of changed environment on the manufacturing industries. Therefore the analysis presented here is based on national income accounts data and changing structure of exports which can be taken as an indicator of changing structure of industries.

Structural adjustment policies in Pakistan, which are synonymous to globalization and liberalization of the economy, have begun to alter the structure of industrial production in Pakistan. First of all the share of manufacturing sector in the GDP has increased from 16.5 percent in 1984-85 to 18.3 percent in 1997-98. Secondly, the share of food, beverage and tobacco industries in manufacturing industries has gone down from 35.2 percent in 1981 to 21.8 percent in 1990-91, while the share of textiles and garments has increased from 19.5 percent to 28.9 percent, that of electrical and non-electrical machinery from 19.2 percent to 23.2 percent and of chemicals from 8 percent to 10.5 percent

¹⁰ In Pakistan trade by firm size are not compiled by official data collection agencies.

during the same period. Similarly, the share of manufactured goods in total exports has increased from 43 percent in 1980 to 70 percent in 1997-98.

Pakistan's exports are highly concentrated on a few items.¹¹ It can be noted from Table 6 that three categories of exports account for about 76 percent of total export earnings; including, textiles 64.1 percent, leather 7.4 percent and rice 5.4 percent. Other exports include, household equipment of base metal (0.3 percent), marbles and stones (0.03 percent), onyx manufactures (0.15 percent), handicrafts (0.16 percent) and textile machinery (0.2 percent). Such a high degree of export concentration is often subject to both external and internal shocks and causes instability in export earnings. As noted earlier only about 40 percent of exports originate from the SMI sector. From the list of export goods it can be concluded that textile and leather are the major export items which mainly originate from the SMIs.

Table 6

Pakistan's Major Exports

Commodities	(Percentage Share in Total Exports)					
	1990	1991	1992	1993	1994	1995
Cotton Group	61.1	61.8	61.3	59.8	57.9	58.7
(i) Raw cotton	11.2	8.9	6.7	4.0	1.1	0.8
(ii) Textile	23.3	29.0	31.6	30.3	31.9	33.0
(iii) Clothing	14.8	22.2	22.7	25.5	24.9	24.9
(iv) Others	10.8	0.9	0.3	0.0	0.0	0.0
Rice	4.8	5.6	6.0	4.7	3.6	5.6
Leather and Products	9.8	9.1	8.6	9.3	9.3	7.4
Wool and Carpets	5.0	3.8	3.5	2.6	2.4	2.6
(i) Raw Wool	0.6	0.2	0.1	0.1	0.2	0.2
(ii) Carpets and Rugs	5.4	3.6	3.4	2.5	2.2	2.4
Fish and Fish Products	1.9	1.9	1.7	2.7	2.3	1.9
Surgical Goods	1.4	1.4	1.3	1.5	1.4	1.4
Sports Goods	2.2	2.2	2.0	1.9	2.9	3.2
Synthetic and Textiles	4.3	5.7	6.1	7.4	9.5	7.1
Others	10.5	9.3	9.5	10.1	10.7	14.5

Source: The State of Pakistan's Foreign Trade 1994-95. Ministry of Commerce, Government of Pakistan.

Given the highly concentrated export structure there is little possibility that Pakistan can diversify its trade structure in the near future. Now trade and exchange system has been liberalised, more liberal investment policy is in place; and attractive fiscal incentives and special credit allocations are offered to exporters. Despite these policies the current pattern of exports are likely to persist at least in the medium-term. Nevertheless, structural adjustment is taking

place. For instance, while new enterprises in small-scale have entered in most of the activities but leather, basic metal and other manufacturing activities have witnessed a loss of enterprises between 1980-81 and 1990-91. On the other hand, in case of medium-sized firms nearly 35 percent of food, beverage and tobacco firms have left their business, while as every other activity registered a growth over the same period.

The medium-sized firms, in particular, are obtaining modern technology to cater the growing and changing demand for new products both for domestic and export markets. For example, a few years back foreign demand for Pakistani surgical goods went down drastically as the 'disposable' surgical goods are now more popular world-wide. Pakistani entrepreneurs could not produce disposable surgical goods because the required steel was not available from the local market while the cost of imported steel made them ineompetitive in the market. Now many local new medium-sized steel plants are catering the need of surgical goods manufactures and Pakistan has recaptured its lost export share of surgical goods in foreign markets. Similarly, the production of new sports items and fashion garments are all indications that the industrial sector is responding to the changing requirements in the global market. Thus the SMIs producing products for the export market are well aware of the export market trends and are restructuring themselves in that direction. Special effort is being made to restructure industries in the aftermath of the Uruguay Agreement. The government has introduced special incentive package for textile, while the trade policy of 1998-99 has introduced many incentives for export promotion from the SMIs. Growth of the vendors in automobile and electronics industries is a case where government's deliberate policy has made use of the international situation where Japanese and Korean investment is looking for low labour cost economies and want to bypass the currency volatility and pressure on their infrastructure. Similarly, Pakistan is trying to take up the slack of Japan and Korea, which are moving out of labour-intensive textiles.

The SMIs are specially responding now to changing marketing opportunities and taking advantage by linking themselves with large-scale firms and by taking advantage to enhance access to imported raw materials available in the local markets. About 22 percent of the Sis reportedly do sub-contractual work for medium-and large-scale units. The industries where this practice is especially marked are textiles, electrical appliances, engineering, wooden furniture, steel utensils and footwear.¹¹ While 53 percent of all micro units do sub-contracting for the formal sector firms.¹²

The reason stated for subcontracting is to meet the production deadlines for large orders. Such arrangements also involve the sharing of equipment between units as well as of labour costs. design and raw materials are generally

¹¹ See, Friedrich Ebert Stiftung and Swiss Development Corporation (1992).

¹² See, Kemal and Mahmood (1993).

provided by the units which sub-contract their orders. Such a widespread production networking has eased the capital and resource constraints of individual firms, made them less susceptible to risk and allowed them as a collection of interconnected units to gain from economics-of-scale and scope. The practice of sharing designs, equipment and raw materials has been important for the SMIs to maintain their competitiveness advantage despite liberalization and globalization of the economy.

Non-tariff barriers, discriminatory to SMIs, are generally still in place. The major impediment, herewith, is the distinction between 'industrial' and 'commercial' importers with respect to tariff rates. Large enterprises are enabled to import their raw material and input requirements directly under the category of 'industrial importer'. SMIs being relatively small consumers of raw materials and inputs, have to obtain their supplies from 'commercial importers' and have to bear the triple burden of higher tariff rates and the intermediaries' transaction costs and profit margins. In effect, the measures places these enterprises at a cost disadvantage relative to large firms.

Export rebates meant to encourage non-traditional exports also benefit the SMIs to the extent that they manufacture and export the items or by utilizing idle capacity to meet the increased demand from local commercial exporters. These measures have also considerably reduced the implicit bias against the SMIs. However, after the UR Agreement the country will have to eliminate all kinds of export subsidies which will have adverse implication for the SMIs, at least in the short run.

The tax concession on imported machinery and equipment in particular have had a threefold effect. One, it has rendered capital cheaper relative to labour; thereby, inducing capital intensive growth. Two, it has rendered imported machinery and equipment cheaper relative to domestic machinery and equipment; thereby, discriminating against the domestic metal and engineering industry. And three, the policy has induced enterprises to install in-house facilities to manufacture parts and components, instead of subcontracting the same to other enterprises; thereby, restricting the growth potential of the SMI sector.

The fact that the LIs having joint ventures with foreign firms (mostly in electronics and automobile) have voluntarily accepted the Deletion Programme reflects that it has become costly to obtain some of the parts from their parent companies or their concerns in other countries because of rising cost of their production and currency volatility. This has enabled Pakistan to obtain modern technology, which is diffused to the lower levels of industries with the development of the vendors industry.

Pakistan due to its geographic location near the Middle East and Central Asian Republics is getting attention from the Korean and Japanese firms who want to make production base in Pakistan for export to these markets. A success

in this direction would create significant linkages with small and medium sized enterprises with large foreign owned firms. In this direction Pakistan has created an opportunity with the signing of South Asian Preferential Trading Arrangement (SAPTA) and preferential trade agreement with Economic Cooperation Organization (ECO) countries. Eventually creation of free trade areas in two regions will provide an added attraction to foreign firms to invest in Pakistan for the regional markets.¹¹ In this regard the development of growth triangles like that of ASEAN region, can go a long way to develop linkages between the SMIs of the region with joint collaboration with foreign investors. So far such a potential has not been realized because very few products have been included in the preferential trading list signed with both SAARC and ECO countries.

7. TEXTILE INDUSTRY

Textile industry is Pakistan's most important manufacturing activity and its leading source of manufactured exports in Pakistan. The sector is based on locally produced high quality cotton and draws on a relatively low cost workforce that is well equipped to handle the labour-intensive technology. Pakistan's textile industry consists of large-modern, medium and small sized units covering the entire range of production technology in spinning, weaving and finishing. Less than 4 percent of the textile Lis have foreign equity, mostly in the synthetic yarn industry. None of the small- or medium-sized firms have any foreign equity participation.

The range of textile industry comprises cotton yarn, cotton fabrics, made-ups and garments. In the yarn and fabrics product-mix has improved with the induction of up-dated technology, high speed spindles, automatic cone winders, electronic splicer and shuttles looms. The power loom sector has also improved and registered a phenomenal growth. The industry has established its strong presence in the quality conscious markets by holding on to its position and also by increasing its share of supplies in export markets. The share of Pakistani cotton yarn and cotton cloth in world exports, respectively, has increased from 11.73 percent and 5.96 percent in 1980 to 13.87 percent and 7.76 percent in 1992.¹⁴

Pakistan's normal cotton crop ranks it as the third largest global producer (behind USA, China and almost at par with India), however; it has not derived the full economic benefits from the fibre primarily due to the MFA. About 20-25 percent of the crop is exported in raw form while the remaining is converted to yarn, fabrics, made-ups etc., for local consumption and exports.

¹¹ It may be noted that SAARC countries have agreed in principle for the South Asian Free Trade Area (SAFTA) by the year 2000. Till that time more products are added in the SAPTA list every year.

¹⁴ Board of Investment (1995).

Textiles in Pakistan is the most efficient activity where domestic resource cost (DRC) = 0.51 in the manufacturing sector. Efficiency is, however, far from uniform, with DRC estimates at the product group level varying from made-up textiles 0.27, 0.44 for cotton textiles, special woven fabrics 0.49, and garments 0.51 to 0.65 for rugs and carpets.¹⁵ In general, the industry is most efficient in the spinning of locally produced fibre (cotton) and the use of the same in made-up items (towels, canvas, knitwear and garments), and is also efficient in the conversion of imported wool into both yarn and fabrics. It is relatively less efficient in the conversion of spun short staple and filament yarn into cloth (both finished and grey). Internationally, the textile industry is characterized by large scale integrated operations employing very sophisticated technology to produce an increasingly more demanding products. Both the weaving and finishing industry and the woolen industry in Pakistan are characterized by small scale, non-integrated units employing relatively labour-intensive technology.

The industry as a whole operates within a largely neutral assistance regime, this is reflected from the effective protective rate of the industry (EPR=41 percent)¹⁶, earning average private financial returns of 17 percent, which are approximately equal to the estimated public economic return of 18 percent.¹⁷ However, a comparison of effective protection rates by size show that small enterprises have the least protection in textile industry while medium-sized enterprises are more protected than small enterprises.

Sub-contracting in textiles is practised in both ways, that is, some firms hire other firms for sub-contracting while some do sub-contracting for others. Subcontracting is practised in the sub-textile sectors of made-ups and fabrics. Small enterprises do sub-contracting for other medium-sized and large-sized enterprises in case of made-up textiles only. Nearly 17 percent of the Sis do sub-contracting in made-up textiles. Medium-size enterprises do subcontracting in case of made-up textiles and fabrics for large-scale firms, while they also hire 30-50 percent of sub-contractors in case of made-up textiles both from small and large enterprises. The large-scale firms also do sub-contracting in case of fabrics (27 percent) while they hire sub-contractor for made-ups (13 percent) and fabrics (20 percent).

Only the medium-sized and large-scale enterprises are directly engaged in the export of their products. In case of medium-sized enterprises 33 percent of fabrics producing firms export 85 percent of their output. On the other hand, in case of large-scale firms, 82 percent of yarn manufacturers export 56 percent of their produce, 100 percent of made-up producers export 70 percent of their output.¹⁸

¹⁵ See, Kemal, Mahmood and Ahmed (1994).

¹⁶ See, Kemal, Mahmood and Ahmed (1994).

¹⁷ See, Government of Pakistan (1988).

¹⁸ These figures are compiled by the author and based on Effective Protection Study Survey, Pakistan Institute of Development Economics, 1993.

The increased availability of imported fabrics and garments after implementing the trade reforms would induce a restructuring of textile industry to produce quality products. Such a restructuring will help Pakistan's textile sector to improve its competitive strength in world markets.

Since November 1990, the textile sector has been deregulated to encourage greater private sector participation and export growth. In support of this aim a number of concessions have been granted to this sector. As a result, the spinning capacity had increased from 5.5 million spindles in 1991 to 8.3 million spindles in 1998. The production of yarn now exceeds 1.5 billion kgs, with about one-third is exported. Exports of cotton fabrics have also increased from US\$ 465 million in 1989 to US\$ 1,250 million in 1998. The removal of restrictions on payments for royalties and technical fees for textiles industries, which had precluded any foreign investment in this industry so far, could go a long way in accelerating the growth of exports of high-end products, which significantly originate from the SMIs.

The WTO requirements for textiles are expected to affect badly the low quality producing small-scale textile sector. So unless modern technology is introduced in the small scale segment of textile sector there is very little chance of their survival with increase in market access after the removal of the MFA.¹⁹

8. LEATHER AND LEATHER GOODS INDUSTRY

Leather and leather goods industry, although relatively limited in size (1.6 percent of total manufacturing value-added), yet it directly employed over 15 thousand workers in 1991. The leather, footwear and leather goods industry in Pakistan is a substantial foreign exchange earner and represents a high share (7.4 percent in 1995) in manufactured exports. Leather footwears make up for less than 2 percent of the total export of leather products. The small share is indicative of the small size of the leather footwear industry (only six large-scale units are in Pakistan). Since the world-wide demand for leather and leather products remains strong (between 1980-81 and 1993-94 exports of leather increased by eight times), it is important for Pakistan to secure a competitive position in the world market. The industry is labour-intensive and is still not run on modern mechanized lines. To accomplish this, it is important that the industry is supported to boost its technological development and to upgrade the quality of its products.

The leather goods (with DRC=0.25) and footwear (with DRC=0.40) industry in Pakistan is highly efficient. While as the large-scale leather goods industry is highly protected (EPR=174), small-scale (EPR=65) and medium-scale (EPR=70) are moderately protected industries; and protection to footwear industry is low (EPR=41). For tanneries the raw materials are mostly available

¹⁹ See. Mahmoodt 1998).

from the local market and no problem is envisaged in the procurement of the desired quality of raw material. Leather tanning is, however, a negative value-added industry and surviving only because hides and skins are subject to export restrictions.

A sector study has shown that an improvement in the quality of leather and leather-good production might yield a high pay-off in terms of capturing better prices in export markets.²⁰ For the development of the industry it encounters bottlenecks such as marketing, raw material supply, competition and removal of restrictions on payments of royalties and technical fees, would enhance the growth of this sector. Especially in the footwear industry, given the tanning facilities coupled with the availability of skilled workers, Pakistan can attract foreign investment from countries such as Italy, Japan and South Korea who are now shifting their production to developing countries because of their rising cost of production, currency volatility, and due to environment concerns.

Most of the leather and footwear enterprises are small and medium sized (68 percent), yet they only produce 16.2 percent of total value-added in the leather and footwear industry. While as export of most of the leather products originate from SMIs,²¹ most of the footwear exports have large-scale origin. Export-oriented footwear industry although is mostly based on imported raw materials but draws its comparative advantage strictly from relative factor costs. Small- and Medium-sized footwear manufacturers mostly supply their output to the domestic market. This pattern is due to poor quality and substandard products. While this is the direct result of low skills and old technology with which SMIs work.

Nearly 25 percent of the large-scale enterprises in leather goods production and 20 percent in leather tanning subcontract their orders to SMIs. On the other hand, medium-sized firms hire small sized subcontractors for leather tanning. Interestingly, all the small-sized leather goods producing firms reported that they hire other small and medium sized firms as their subcontractors.

Given the high efficiency in producing leather and leather products, introduction of modern technology coupled with improved design can enable Pakistan's leather industry to enhance its export share significantly. Currently, no foreign equity participation is in the leather and leather goods producing SMIs. Regional countries are competing economies with Pakistan in the production of these products. However, joint collaboration on the basis of technology and knowledge sharing and joint production for extra regional markets can be beneficial for regional economic development.

²⁰ See, Tomesen and Thomas (1992).

²¹ Interestingly, the Effective Protection Study Survey (1992) found that all small, medium and large sized firms are directly engaged in export of their leather products.

9. LIGHT ENGINEERING INDUSTRY

Either the production of simple shapes and components or the assembly of complex industrial products can broadly characterise Pakistan's engineering industry. Nevertheless, Pakistan's machinery production include diesel engines, agricultural machinery, machine tools, textile machinery, household sewing machines, household appliances, road rollers, bulldozers, sugar plants, cranes, pumps, printing and book-binding machinery, office machines, surgical instruments, oil expellers, ice plants, and cotton ginning plants. Non-electrical and electrical machinery account for about 5 percent of industrial value-added.

Engineering industries currently meet nearly 50 percent of demand utilizing labour intensive techniques with low levels of productivity. This situation has arisen because the potential of the engineering industry has been insufficiently acknowledged in Pakistan. The recent export performance of the subsector is very poor with only surgical instruments achieving any significant penetration of export markets. Only 6 percent of large-scale firms export 4 percent of their output, while medium-sized firms exports over 17 percent of their output. The role of the engineering sub-sector in exports at the present stage of development is as a facilitator of other manufactured exports rather than as an exporter in its own right. A vigorous engineering subsector can disseminate valuable skills throughout the rest of the manufacturing sector and can provide support for capital equipment used by other subsectors.

Not surprisingly, the product groups currently most exposed to competition—electrical machinery (DRC=0.70) and mechanical machinery (DRC=-.82)—is the most efficient, while the product groups least exposed to competition are the least efficient, for instance iron and steel (DRC=1.05), articles of iron and steel (negative value-added at world prices), copper products (DRC=1.27), motor vehicles (negative value-added at world prices), ships and boats (DRC=2.82) and other base metal products (DRC=1.40).²² Within the electrical machinery industry, transformer and switchgear manufacturers sell the bulk of the output to WAPDA against international tenders; domestic appliance manufacturers compete against smuggled goods; and the fan industry is intensely competitive with 250 to 400 manufacturing enterprises.

The trade reform program would have a mixed impact on this sector. Electrical and mechanical machinery, an efficient industry, would benefit substantially from the reforms. However, production of basic metals, automobile and boat and ship is inefficient and these subsectors would face losses or at least sharp reductions in profits. Outcome in both subsectors is a direct result of inefficient and heavily protected state-owned enterprises—the Pakistan Steel Mill Corporation, State-owned shipyard and automobile manufacturing units. Efforts are being made to restructure these enterprises and to privatize them.

²² See, Kemal, Mahnood and Ahmed (1994).

This is of crucial importance since some of them are producing intermediate products, which generally affect the competitiveness of Pakistan's engineering industries. Within the transport subsector, production of tractors and bicycles is relatively efficient, whereas production of motor vehicles heavily relies on high levels of government assistance ($EPR=495$). In the latter area, a trade reform would require significant changes, leading to a more internationally integrated production and supply of components.

The policy prescription since the early 1980s were guided by an outward orientation and export promotion. However, attempts to boost the engineering sector, crucial for a good export performance of the industrial sector, have not been very successful. For example, the huge investment in the Karachi Steel Mills has not created the expected large number of downstream manufacturing industries producing components, spare parts and finished products for exports. Exports of machinery and transport equipment even decreased from Rs. 526 million in 1984-85 to Rs. 225 million in 1988-89, thus showing a decline of 43 percent.

In the light engineering SMIs no foreign joint venture exist. However, the vendor industry developed in Pakistan received technical assistance from foreign collaborations of large firms. Since the light engineering base in Pakistan is too narrow. Any regional collaboration on the basis of complementary specialization will not only protect this young industry in Pakistan but would also provide a stimulus for its growth.

10. ELECTRONICS INDUSTRY

Electronics industry is part of electrical machinery industry in Pakistan.

No separate information is available to infer whether it is an efficient industry or not. Kemal, Mahmood and Ahmed (1994) reports that electronics is an efficient industry (*with $DRC=0.70$*) in Pakistan. However, *it is highly protected with $EPR=383$. Even using existing production techniques, products like domestic appliances ($DRC=0.45$) and televisions ($DRC=0.24$) are internationally competitive and with further product quality improvements these could achieve significant export growth. Ironically both of these products are currently facing negative protection. While as most of the domestic appliance units are medium-sized, television manufacturing units are large-scale.*

Electronic industry is becoming more important for broadening the base for industrialisation in the country. Using flexible specialization paradigm, small and medium enterprises are supplying products to the major industries at a low price, and are responding quickly to market requirements. Although small in number the industry uses multipurpose equipment, skilled manpower, and networks of entrepreneurs which lead them to collective efficiency. In cities of Karachi and Lahore the vendor system already plays an increasingly important role with respect to the large scale enterprises. For instance, the Netherlands

transnational company Phillips in Karachi has closed down its two factories and buys the same products at a lower price from domestic small and medium suppliers.²¹

The Deletion Programme also includes colour TV picture tubes, transformers, deep freezers, refrigerators, air conditioners, etc. As a result of this programme, the demand for parts of these products and of finished products has already increased to a large extent and is expected to increase further. This industry is mostly based on foreign equity and direct foreign investment of large-scale enterprises. Nearly 20 percent of large firms reported that they hire small- and medium-sized firms as their subcontractors. They extend 67 percent of their work load to small and medium-sized firms. Further foreign investment is sought in this sector with a focus on regional export market.

A study shows significant export potential of electronics from Pakistan.²⁴ Nearly 30 percent of medium-sized enterprises reported that they export 20 percent of their output, however 20 percent of large-scale firms export only 2 percent of their output. While, none of the small enterprise is engaged in export. Pakistan has started with consumer electronics production which are relatively more labour-intensive and require a smaller initial investment. Due to the absence of local know how and technology in the field of electronics foreign collaboration was sought. Pakistan has so far got foreign collaboration largely from Japanese, Korean, European and USA firms. This collaboration has led to assembly of various products for the domestic market. Now with the deletion programme it is expected that both domestic and foreign investors will utilize this opportunity to manufacture electronics parts domestically. This would enable the country to produce complete products locally for both domestic and export markets especially in the region. A special government programme to upgrade the skills of workers can help the country to attract foreign investment from those countries who are now switching their industries from consumer electronics to industrial electronics and want to shift their consumer electronics units overseas.

11. CONCLUSIONS AND RECOMMENDATIONS

Main objective of this study was to evaluate critically the experience of SMIs in Pakistan and to identify industrial activities in which they can play a significant role in terms of their contribution to GDP, exports, employment and technology diffusion. The study also provides an assessment of selected products where the SMIs can inject new dynamism and examines possibilities for linkages and other avenues for cooperation of these industries with similar industries in the region.

²³ See, Tomesen and Thomas (1992).

²⁴ See, Government of Pakistan (1988).

In the following we summarize the major findings of the study followed by some recommendations for policy and strategy options for both government and to foreign linkages with SMIs in other counties of the region.

- (i) Historically Pakistan has achieved high growth rates (over 7 percent per annum) in the manufacturing sector. The share of manufacturing in the GDP is about 18 percent. The share of semi-manufactured and manufactured goods in total exports is now 89 percent of which about 40 percent originate from the SMI sector. Despite the impressive performance of the sector, a number of structural weaknesses, including narrow production base, low level of industrial linkages, lack of export diversification, insufficient trained workforce and inflexible technology used in the SMIs, have undermined the sustainability of this growth.
- (ii) The SMIs account for 78.9 percent of the manufacturing establishment, however their share in employment is 16 percent and 13.1 percent in value-added.
- (iii) The SMIs are concentrated in those products, which are amenable to small and medium scale production requiring less capital and catering mostly to local market demands.
- (iv) Performance indicators show that some of the SMIs have graduated to the Lis. Moreover, the Lis have moved to higher stages of production and are now using more sophisticated technologies. Labour productivity for every size of enterprise has increased. Similarly, the capital-labour ratio has gone up sharply for all sizes, reflecting the greater use of capital-intensive techniques and a restructuring towards industries requiring greater use of capital per worker. However, there is a strong evidence of underutilization of capital.
- (v) A significant foreign equity participation is found only in the large-scale firms in the categories of food, beverage and tobacco; wood and furniture; chemicals, non-metallic minerals; basic metals; and metal product industries. There is no foreign investment or collaboration in the SMIs.
- (vi) Pakistan's development policies have always favoured capital-intensive technology choices. Availability of science and technology personnel is quite low. General technological and institutional climate is not very supportive to the SMIs. The contribution of manufacturing industries in technology diffusion is very low. Although, the deletion programme is now paying some dividends in terms of technology diffusion at lower levels, yet its coverage is very low.
- (vii) About a quarter of the SIs do sub-contracting for medium-and large-scale enterprises. The industries where this practice is especially

marked are textiles, electrical appliances, light engineering, wooden furniture, steel utensils and footwear. Sub-contractual arrangements involve the sharing of equipments, labour design and raw materials with larger firms. This arrangement has enabled the SMIs to maintain their competitive strength in the changing market environment in and outside the country.

- (viii) Small enterprises have to obtain their raw material supplies from commercial importers for their non-contractual output, which makes them at a cost disadvantage relative to large enterprises.
- (ix) The textile industry in Pakistan is the most efficient in the manufacturing sector. It has established its strong presence foreign markets by holding on to its position and also by increasing its share of supplies in export markets despite trade restrictions imposed by the developed countries.
- (x) Sub-contracting in textiles is practised in the activities of made ups and fabrics. The SMIs do sub-contracting for large enterprises. Only the medium and large sized textile firms are directly engaged in the export of their products.
- (xi) There is very little foreign investment in the textile sector. The WTO requirements for textiles are expected to badly affect the low quality producing small-scale textile sector.
- (xii) Leather and leather goods industry is relatively small in size but is a substantial earner of foreign exchange. Leather industry is labour-intensive and is still not run on modern lines. While as leather goods and footwear activities are efficient, the leather tanning is a negative value-added industry and is surviving because hides and skins are subject to export tax. Most of the leather goods export originate from small- and medium-scale enterprises, while the footwear exports have large-scale origin. Export oriented footwear industry although depends heavily on imported raw materials yet it draws its comparative advantage strictly from relative factor costs. Both leather and leather goods producing large-scale enterprises sub-contract their orders to the SMIs, while the medium-sized enterprises sub-contract to small enterprises and small enterprises sub-contract to other small and medium sized enterprises. No foreign equity participation is found in leather and leather goods producing SMIs.
- (xiii) Light engineering industry generally produces either simple shapes or components or the assembly of complex industrial products. The list of goods produced in the engineering sector include diesel engines, motor pumps, agricultural machinery, machine tools, textile machinery, household sewing machines, household appliances, road rollers, bulldozers, sugar and cement plants, printing and book-

binding machinery, office machines, surgical instruments, oil expellers, ice plants, and cotton ginning plants.

- (xiv) Engineering industry accounts for 5 percent of industrial value-added. The industry meets about 40 percent of demand for engineering products utilizing labour-intensive techniques. Only 6 percent of the Lis export 4 percent of their output while the medium-sized enterprises export over 17 percent of their output. The role of the industry in exports at the present stage of development is a facilitator of other manufactured export rather than as an exporter in its own right.
- (xv) Electrical and non-electrical machinery industries which are most exposed to the foreign competition are the most efficient, while the products, such as iron and steel products, copper products, motor vehicle, ships and boats, least exposed to the competition are the least efficient. Accordingly, the former group will benefit from trade liberalization while the latter will have to improve the efficiency for its survival.
- (xvi) In the engineering industry the SMIs are capable of bringing certain latent reserves of resources into productive use, and that they can best succeeded in doing this in a general climate of economic development and in tandem with the large-scale enterprises.
- (xvii) Consumer electronics industry even in its infancy is efficient but highly protected. Though small in number the SMIs are supplying products to the Lis at competitive prices. The industry uses multipurpose equipments, skilled manpower, and networks of entrepreneurs for their collective efficiency. The deletion programme has created demand for local manufactured parts. This has motivated foreign firms to create a vendor industry and transfer of technology.
- (xviii) Domestic policies affecting foreign investments, exchange rate policy, trade liberalization, in combination with changing cost structure and currency volatility in the East Asian Counties, have not so far brought the designed level of FDI into the country in ancillary and support industries.

Keeping in front the above conclusions following recommendations are made for strategic directions and policy recommendations:

- (i) Encourage the SMIs through explicit policy measures especially those, which base their production on domestic raw materials, and those, which can attract foreign investment. These policies include, among others, a stable financial system, fiscal prudence, efficient infrastructure provision, and competitive exchange rates. The latest

initiative in the form of SMEDA, if effectively implemented, can bring the desired.

- (ii) Efforts should be made to increase export of quality products produced by the SMIs. To achieve this goal it will be necessary to assure the necessary supply of capital, appropriate skills and technology and market information particularly for the SMIs. Pakistan must learn to operate in an international environment where protectionism is very common. It should adopt such policy measures, which minimise the adverse effects of protectionism.
- (iii) Tariff rates are still high in Pakistan. This increases the costs of imported raw materials, and machinery and equipment. Thus making the SMIs (who buy these items from commercial importers) less competitive compared with Lis who enjoys exemptions and investment promotion privileges. Trade reforms and elimination of discrimination against the SMIs would be beneficial for the growth of SMIs.
- (iv) The development of linkages is very important and the subcontracting system, which is not encouraged by deliberate policy, will need to be promoted in a systematic way. Government should take initiatives to promote clusters of enterprises of different sizes and working in different industries. For example, reserve space for smaller units in the existing industrial zones, where cooperative competition would be possible. Also stimulate the formation of networks of entrepreneurs.
- (v) Support the creation of centres of innovation and quality improvement, helping entrepreneurs with product design, improvement of production methods and the optimal use of multi-purpose equipment. Such centres can be particularly useful for the SMIs who can not create in-house facilities.
- (vi) Although the deletion programmes are introduced with regard to the technological capabilities of the SMIs, yet the SMIs capabilities are usually overstated. Therefore, the Government should first concentrate on encouraging linkage between the Lis and SMIs in those fields that lie within the technological and managerial capabilities of the SMIs. Once these SMIs acquire sufficient capabilities orders from the Lis for parts manufacturing will follow.
- (vii) A flexible and innovative SMIs based on complementary specialization and networking in the region coupled with trade liberalization on the regional basis can attract foreign investment especially from countries who are now looking for such opportunities due to rising labour cost in producing relatively labour-intensive goods in their countries due to their currency volatility.

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ABSTRACT

The emerging role of the small and medium enterprises (SMEs) as a source of stimulating economic growth in Pakistan has attracted considerable attention by the present Government. Their significant contribution to national production and employment, coupled with important shares in exports, has made them a potential source of sustainable growth and development. Besides, the SMEs with their capability to operate autonomously on the strength of sub-contractual relationship with other SMEs and large enterprises have given rise to the spatial and sectoral agglomeration through production based networking.

Where as the SMEs play a key role in industrial development of Pakistan, they face a number of problems in international marketing operations. In the changing global trading environment and launching of policy of economic reforms and liberalisation, the SMEs have to made adjustments to become competitive and efficient.

It is against this background that the present study evaluates critically Pakistan's experience of the SMEs and identify industrial activities at the national level in which they play a significant role in terms of their contribution to GDP, exports, employment and technology diffusion. The study also provides an assessment of new industrial activities where the export-oriented SMEs can inject new dynamism and examines possibilities for linkages and other avenues for cooperation of these industries with similar industries in other regional and extra regional countries.

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