A photograph of a man with a beard and glasses, wearing a light-colored long-sleeved shirt and dark trousers, working in a textile factory. He is leaning over a large industrial machine, possibly a loom or spinning machine, and appears to be adjusting or operating it. The background shows other workers and machinery in a busy industrial setting.

Industrial Policy for Economic and Social Upgrading in Pakistan

Kishwar Khan

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December 2021
Islamabad

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Acronyms

CMI	Census of Manufacturing Industries
CSR	Corporate Social Responsibility
EP	Environment policy
ESE	Economic, social and environmental
FDI	Foreign direct investment
FES	Friedrich Ebert Stiftung
GDP	Gross Domestic Production
GOP	Government of Pakistan
ILO	International Labour Organization
IP	Industrial policy
IPRs	Intellectual Property Rights
MWs	Minimum wages
MVA	Manufacturing Value Added
NASA	National Aeronautics and Space Administration, United States
OSH	Occupational Safety and Health
SBP	State Bank of Pakistan
SEZ	Special Economic Zone
SMEs	Small and medium-sized enterprises
SMEDA	Small and Medium Enterprises Development Authority
TDAP	Trade Development Authority of Pakistan
TRIMs	Trade Related Investment Measures
UNIDO	United Nations Industrial Development Organization
WB	World Bank
WTO	World Trade Organization

Preface

Industrial Policy and Social Uplifting

The development of the industrial sector in Pakistan has been less than impressive over the last decades. One of the reasons lies in the lack of a coherent industrial policy, which seems to be an outflow of an overall economic policy which has lacked in coherence and continuity. The result has been a grave underutilization of Pakistan's economic potential, which in turn has negatively affected the common people the most. Economic policy, including industrial policy, and the social and environmental upgrading and uplifting have to go hand in hand, and if one of them is lacking, the other suffers.

The paper at hand is a first, though still incomplete attempt to highlight this important connection. It provides an overview of key aspects and experiences of economic policy-making, including in the field of industrial policy, and outlines some of the framework conditions they are operating in. And it briefly sketches their link to the social development of the country, ending with a few suggestions for policy improvements.

We are glad that after a long and sometimes painful process this paper has still seen the light of the day, and wish that other researchers will continue and fill the gaps that remain.

Pakistan needs a more dynamic economy, which requires economic reform, based on a societal and political consensus, and it needs continuity of its economic policy. And the country needs an economic policy aiming at the uplifting of the whole of society, so that it can fully utilize its potential.

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Islamabad, December 2021

Executive Summary

Summary of the work undertaken

Economic upgrading entails the use of new technologies and increasing skill-levels to attain higher productivity, and social upgrading is reflected in the development of real wages, gender equality and poverty reduction i.e. implying the realisation of the ILO's core labour standards (Barrientos et al. 2011)¹. Without higher productivity, real wages cannot increase in the medium- and even less in the long-run. Hence, economic and social upgrading are the two sides of the same coin. However, the market mechanism does not automatically leads to economic and social upgrading. This creates the room for suitable government interventions in the form of institution building, policies and regulations to achieve sustainable development and economic and social upgrading. The interventions addressed in this report relate to industrial policy, which has become one of the pillars for economic upgrading, linked to social and environmental upgrading.²

In the above context, this Report addresses the following research and policy questions: How did economic, social and environmental upgrading historically develop in Pakistan, particularly in the context of the public policy? How does industrial policy work at the Federal, provincial and sectoral levels? What do the key stakeholders in the country recommend to achieve social and economic upgrading? And what could be the possible interventions to effectively use industrial policy for economic, social and environmental upgrading?

The Report uses mixed research methods by: a) undertaking secondary data analysis; b) conducting a quantitative survey of selected segments of textiles, garments, surgical instruments and leather industries of Pakistan; and c)

-
1. Barrientos, S., Gereffi, G., Rossi, A. (2011). Economic and social upgrading in global production networks: A new paradigm for a changing world, in: *International Labour Review*, vol. 150, 319 -340.
 2. Cimoli, M., Dosi, G., Stiglitz, J.E. (2009). The future of industrial policy in the new millennium: towards a knowledge-centred development agenda, in: M. Cimoli, G. Dosi, J.E. Stiglitz (eds), *Industrial policy and development. The political economy of capabilities accumulation*, Oxford: Oxford University Press.

carrying out qualitative interviews and focus group discussions with the key stakeholders - government, trade unions, employers' association, workers' organizations, civil society, workers and academia.

The Report presents the key findings of the research work, and offers policy recommendations to address the challenges and opportunities while using industrial policy for economic, social and environmental upgrading.

Key findings

Qualitative interviews and focus group discussions

A series of focus group discussions (FGDs) were organized on Industrial Policy, Core Labour Standards Plus and Economic, Social and Environmental Upgrading.³ The FGDs, interviews and consultations targeted firstly, to develop an understanding about the way the relevant public sector organizations, chambers of commerce, business groups, trade unions, workers and their organizations perceive industrial policy, decent work and their interlinkage; secondly, which policy areas, environmental aspect and labour standards they think are the most ignored or violated, and why. Lastly, what do they consider needs to be done to ensure adherence to CLS Plus for economic, social and environmental upgrading by using the industrial policy in Pakistan. Here is the essence of this exercise.

Promoting decent work using industrial policy

The representative workers' and labour organizations identified their limited understanding about the relevance of the industrial policy with the CLS Plus. This directly affected their ability to explore earlier if industrial policy could be a way to promote and protect decent work opportunities. Based on this Study's consultations, they recognized that the inclusion of industrial policy instruments in their charter of demand offers an out of the box solution to promote CLS Plus. However, they highlighted the need for: a) their capacity building to better understand industrial policy, and b) their effective participation in the consultations by the government on industrial policy.

3. The consultations took place in three provincial capitals on: 14 October 2019, Lahore; 26 September 2019, Karachi; 14 December, 2019, Lahore; and 16 December, 2019, Peshawar

China-Pakistan Economic Corridor (CPEC)

China-Pakistan Economic Corridor (CPEC) focuses on the development of regional transport, communication and electricity generation. Consequently, industrial cooperation, trade and business linkages are expected to increase. The CPEC will promote industrialization through domestic and foreign investment, and trade. Initially, nine Special Economic Zones (SEZs) have been planned in Pakistan. These SEZs projects are at various stages of completion, and are likely to take a few years to get operationalized. All labour and employment laws of Pakistan shall be applicable to SEZs in the same manner as they are elsewhere in Pakistan.

The role of the Trade arrangements

The international trade arrangements, both regional and preferential, show limited success in economic and social upgrading in Pakistan. For trade linkages to generate income and prosperity, it is crucial to address the impediments to industrialization and remove supply side bottlenecks. Effective implementation of a suitable industrial policy is, hence, a pre-condition to get benefit from trading arrangements.

The EU's GSP Plus Scheme is the only trading arrangement that explicitly contains labour and environmental conditions. The Scheme has largely served the promotional purpose, and has increased the level of awareness of parliamentarians, government, workers and their organizations. At the government level, the implementation mechanisms to fulfil international treaties' commitments have evolved and are improving. On the part of the workers' organizations, the increased awareness is reflected by Pakistan Workers Confederation's annual report on the GSP Plus compliance⁴. Since 2015, these reports cover their concerns on the labour standards' compliance and industrial review.

The state of the decent work

This Report assesses decent work with reference to four strategic objectives: fundamental principles and rights at work and international labour standards; employment and income opportunities; social protection and social security; and social dialogue and tripartism. There is incidence of deviations from the international commitments, and weak implementation of relevant laws. Overall, the survey indicates that the larger industrial units performed better as compared to the smaller units for providing decent work opportunities. It

4. In collaboration with the Friedrich Ebert Foundation, Islamabad Office.

was found that there is higher occurrence of decent work violations among females than male workers, and those in the SMEs reported more of such experiences than workers in the large scale manufacturing units. An industrial policy favouring large scale manufacturing can, therefore, prove helpful in promoting decent work. Nevertheless, it is identified that concrete efforts are required at the government level for adopting suitable labour legislations, their effective implementation and continuous monitoring including on-spot inspections by the labour and environmental agencies. For which, the concerned departments need substantial capacity building.

Quantitative survey

The Census of Manufacturing Industries (CMI) provides useful information to assess economic and social upgrading in various industries. The last CMI was conducted in 2015-16 but Pakistan Bureau of Statistics (PBS) did not publish its Report. Therefore, the officially available basic data on the manufacturing relate to 2005-06. To fill the data gap, a survey was conducted for this research.

The survey covered the industrial units⁵ operating at various stages of value chain, which are involved in exports and related activities. The data was collected during July-August 2019 and January-February 2020 from major industrial cities: Karachi, Lahore, Faisalabad, Sialkot and Multan. The units in the textile industry, garment manufacturing, surgical instruments' production and leather goods were surveyed. The units included both the large and SMEs at a variety of locations –industrial estates, within residential or commercial areas and clusters.

The analysis of economic, social and environmental upgrading is organized under five explanatory factors: a) characteristics of units i.e. place in the value chain, year of establishment, sourcing of inputs, sales, etc.; b) information about products - quality, diversification, costing, price, export market conditions; c) information about decent work indicators - wages and other payments, gender, age, skill development, working conditions, etc.; d) environmental indicators; and e) perception about the relevant government policies, including industrial policy, and related issues. The selected indicators are analysed in the main Report, and the detailed data is provided in the Annex. However, the results are indicative only, which could not be a substitute for a national level census or survey.

5. 'Industrial Unit' means any business unit engaged in the manufacturing, processing, or assembling of any product.

The case studies at the industry and factory levels show that the individual industrial units participating as exporters in the GVCs have considerably achieved economic and social upgrading. However, in the units at the lower-end, the situation of workers need immediate attention for promotion of decent work. The environmental mapping reveals that the steps to protect environment would be required alongside industrialization efforts. The current contribution of industry in environmental degrading may be low due to de-industrialization. Nevertheless, the case studies show the urgent need to address various forms of pollutants at the plant level.

Policy Recommendations

The following are the recommendations to improve ESE upgrading in the context of Pakistan, using industrial policy.

- i. A comprehensive database on workers, their skill level, place of employment, wage level, etc. is non-existent. Besides compromising transparency and accountability, it impedes effective implementation of labour laws, access to social security and other benefits.
- ii. A suitable industrial policy is inevitable to reverse the deindustrialization and promote inclusive and sustainable development. The industrial policy has to be blended with various facets of decent work, which is not the case at present. A model industrial policy containing the elements of decent work may be prepared in consultation with all the stakeholders. With a close networking of support institutions, the policy may be implemented as a pilot project in a major industrial city. Gradually, by widening the circle, its impact may be increased to provincial and national levels.
- iii. The future trade agreement(s) need to include clauses on labour and environment along with built-in implementation mechanism for effective enforcement. The stakeholders, particularly industrialists and workers can make more meaningful contributions if they are involved right from the start of new commitments on trade arrangements.
- iv. An industrial policy favouring large scale manufacturing can prove helpful. Nevertheless, it is identified that concrete efforts are required at the government level for adopting suitable labour legislations, their effective implementation and continuous monitoring including on-spot inspections by the labour and environment agencies.

Chapter One

Introduction⁶

1.1. Research Background

Pakistan's economy is facing chronic structural issues, which have adversely affected the economic growth. The investment, industrial production and exports all have gone down, leading to alarming macro-economic imbalances and unsustainable deficits. The reasons seem to be deep rooted in the history and the way industrial sector has been treated over time. In the '60s, Pakistan followed import-substitution industrialization strategy. As a corollary, the relatively higher tariffs on consumer goods promoted these industries, and the capital goods and intermediate goods industries did not establish. Its understandable consequences were to be seen in the later periods. In the '70s, the nationalization eroded the confidence of the private sector, and industry too did not perform well in the state control. In the '90s and later in the era of trade liberalization and openness, the industry could not compete in the international market. Having said this, Pakistan has development potential, notably, owing to strategic endowments and demographic dividend. However, it remains a challenge to provide the growing labour force with adequate employment opportunities and create a decent work environment. How can industrial policy be used in Pakistan towards this end, is the focus of this Report.

Industrial policy is widely recognized to help developing countries 'catch up' and reform economic structure (Stiglitz, 2013).⁷ However, the quality and implementation of industrial policies remain questionable, and the market driven industrial development does not guarantee the desirable outcomes (Herr, 2018; Rodrik, 2004). Further, the international trade provides avenues to initiate industrialization process, but in the buyer-driven global value chains, the developing countries generally get engaged in low-value-added and low skill part of the value chain. This hinders their economic and social

6. The views expressed in this Report are those of the author, and do not reflect the views or policies of the affiliated organizations – the Competition Commission of Pakistan and the Friedrich Ebert Foundation.

7. Eds. Stiglitz Joseph E., Columbia University, USA and Justin Yifu Lin, Peking University, China, *The Industrial Policy Revolution I - The Role of Government Beyond Ideology*, 2013

upgrading (Herr, 2018). Appropriate policies are then needed for achieving economic and social upgrading, and sustainable development (ILO, 2014).

The Friedrich Ebert Stiftung's Project on 'Who Benefits from Trade' (2016-18) explored the Core Labour Standards (CLS) in Bangladesh, Cambodia, Pakistan and Vietnam. This study of trade-labour linkages indicated that the situation of labour rights aggravates in the backdrop of weak trade unions, gaps in labour laws and their ineffective implementation. Severe competition compels the industries in the developing countries to ignore labour rights. The consequential inequality hampers economic growth and reduces opportunities for the decent work.

As an offshoot, the Project (FES Asia, 2017) highlighted the importance of industrial policy, which otherwise finds a limited scope in trade and investment agreements. The weak institutional mechanism to implement industrial policy could not transform the needed economic resolve into a bureaucratic resolve, which shapes the structure of the economy to move up the industrial ladder. This argument forms the basis of the present study, it explores the historical development of the industrial policy in Pakistan with reference to the economic, social and environmental upgrading at the national and sectoral levels. On the basis of this analysis, recommendations are chalked out for the policymakers and stakeholders to effectively use industrial policy for economic, social and environmental upgrading. The Pakistan country study aims at answering the following questions:

- How did social and economic upgrading in the country historically develop?
- Which policies were followed to achieve economic upgrading, especially industrial policy?
- Which policies were followed to achieve social upgrading? Was economic upgrading linked to social upgrading?
- How does industrial policy work in the country and are there especially positive examples on the national, provincial and sector levels?
- How do policies of social upgrading work in the country and are there positive examples on the national, provincial and sector levels?
- What do relevant actors (government, trade unions, employers' associations, civil society) in the country recommend to achieve social and economic upgrading?
- What can be learned from the successes and mistakes in respect to economic and social upgrading for other countries?

1.2. Research Methodology

The study used mixed-method research approach, combining the quantitative and qualitative methodology to explore answers to the research questions. Crucial information for analysis was obtained through a review of documents and records, focus groups discussions, group interviews, individual interviews (unstructured and structured), surveys (through questionnaire and physical observations) and case studies. The research methodology is explained below with reference to the specific parts of the study.

How has the industrial policy evolved in Pakistan?

A review of literature and policy documents shows the historical development of industrial policy in Pakistan. This helps explain the state of the industrial sector within the overall macroeconomic trends.

To what extent was the industrial policy successful to bring about economic, social and environmental upgrading?

The secondary data is used to assess the success or otherwise of the industrial policy. The data for economic upgrading's indicators has been extracted from various international and national online databases like World Integrated Trade Solution, UN COMTRADE, International monetary Fund, SBP, PBS, etc. The reports published by the government such as Economic Survey and other research publications were used to gather secondary data. The data on the social upgrading i.e. decent work indicators has been extracted from the ILO and UNIDO databases. For indicators of environmental upgrading, background research was conducted using high resolution active and passive sensor's data for analyzing the emissions using NASA's satellite images and Google Earth images.

Quantitative survey and Focus Group Discussions

To assess economic and social indicators, the in-depth study covered three industries - Textiles, Leather and Surgical Instruments. The reason being that: a) these are well-established industries; b) these are part of global value chains; c) major export earners; and d) major employers. These are mainly based in Punjab and Sindh provinces.

The required data for the study is not available for the economic, social and environmental upgrading's indicators at the industry and the units' level.

Filling up the data gaps was a major challenge. Therefore, a survey has been conducted comprising Karachi, Lahore, Multan, Sialkot and Faisalabad cities to collect information from relevant stakeholders. The city of Sialkot has large industrial manufacturing clusters of leather garments and surgical instruments. There are industrial production units in the Industrial Estates located in Multan and Sialkot. The survey of various cities provides useful information about the ESE upgrading across various types of establishments, i.e. those situated in clusters, industrial estates, special economic zones, export processing zones and even in the residential localities.

Crucial information was gathered by organizing focus group discussions and interviews with stakeholders, including producers/employers, associations, civil society, government organizations, trade unions and workers.

1.3. Significance of Research

This Report highlights the importance of the industrial policy, which otherwise does not seem to find a priority place in the macro-economic development planning of Pakistan. Its direct linkages with economic and social upgrading makes it inevitable to generate employment opportunities and overcome balance of payment deficit. The Report also addresses the concerns of the workers. It thus fills a research gap and assesses the level of upgrading achieved by Pakistan, identifies the constraints in the industrial policymaking process and implementation processes.

1.4. Structure of this Report

The Report is structured into five chapters. The first Chapter gives Introduction that is followed by a review of the industrial policy of the country in different phases, and the level of economic, social and environmental upgrading achieved in Chapter 2. Chapter 3 looks into the specific indicators of economic, social and ecological upgrading, and the underlying issues in the textiles, surgical instruments and leather industry. It also sheds light on the government's policies for developing these industries. Chapter 4 identifies the specific areas to be addressed for linking industrial policy with economic, social and environmental upgrading in Pakistan. Lastly, Chapter 5 presents the conclusions and chalks out recommendations for various stakeholders, industrial policy direction and how to further improve economic and social upgrading in Pakistan.

Chapter Two

Industrial Policy in Pakistan and its Link with Economic, Social and Environmental Upgrading

2.1. The Industrial Policy in Pakistan - Instruments and Incidence

Pakistan started pre-dominantly from an agriculture-based economy in the 1950s, when the country had a low industrial capacity even to process its agricultural produce. To develop its manufacturing sector, diverse industrial policies were implemented in different periods, supporting either the private or the public sector. During the 1960s, private sector led industrialization was encouraged, while in the 1970s, the public sector was given the leading role through nationalization of industries. In the 1980s and 1990s, the private sector was again assigned a leading role. During the 1990s, Pakistan adopted liberal, market-oriented policies, and declared the private sector as the engine of economic growth. Moreover, an attractive package of incentives was offered to attract the FDI (Khan and Kim 1999). Here is an overview of the industrial policies followed in Pakistan.

2.1.1. 1950s and 1960s - Import Substitution Industrialization

The first industrial strategy was devised in reaction to the trade embargo imposed by India on Pakistan in 1948. It focused on the development of basic industries through protectionism, tariff barriers, overvalued exchange rate and subsidized industrial credit. Enterprises set up in public sector were subsequently divested as running ventures to the private sector. Some emphasis on exports through measures like Bonus Voucher scheme. Industrialization started picking up.⁸ By the end of '60s, the private sector was dominating sectors like banking, insurance and basic consumer goods

8. Pakistan Industrial Development Corporation was created in 1950 to promote private sector.

industries and exports of cotton and jute products.⁹ The industrial production was increased but the unregulated private sector led to concentration of wealth and formation of monopolies. That high concentration resulted in windfall profits for the industrialists.¹⁰ This was considered as detrimental to the economic growth, as it affected the consumers, entrepreneurs and even the democratic process.¹¹ This culminated in the nationalization.¹²

2.1.2. 1970s - Nationalization of Industry

Through the Economic Reforms Order, 1972, the government took over the control of management of ten major categories of industries - iron and steel, heavy engineering, assembly and manufacturing of motor vehicles, assembly and manufacturing of tractors, heavy basic chemicals, petrochemicals, cement, public utilities, gas, and oil refineries. This move by the government eroded the confidence of the private sector.¹³ Nationalization was further reinforced in 1975, when small-sized agro-processing units were also nationalized.¹⁴ The Ministry of Production controlled 75 industrial units through 8 holding corporations, which included chemicals, fertilizer, automobile, cement, petroleum and steel. During the five years of nationalization, the productivity of these industries declined though public sector investment increased.

9. Public sector was restricted to arms, hydel power, manufacture of railway wagons and telecommunication.

10. The concentration of 22 family groups owned and controlled 66 percent of the industrial assets and 87 percent of the banking and insurance assets. See: White, Lawrence J. *Industrial Concentration and Economic Power in Pakistan*. Princeton University Press, 1974. JSTOR, www.jstor.org/stable/j.ctt13x12nt. Accessed 20th May 2020.

11. Government of Pakistan, *Monopolies and Restrictive Trade Practices (Control and Prevention) Ordinance, 1970*, see Preamble.

12. Rashid Amjad, *Industrial Concentration and Economic Power in Pakistan*, *Pakistan Economic and Social Review*, Vol. 14, No. 1/4, *Income Inequalities in Pakistan (1976)*, pp. 211-261. Available at: <https://www.jstor.org/stable/pdf/25821361.pdf?seq=1>. Accessed 20th May 2020.

13. *Economic Reforms Order*. Available at: <http://nasirlawsite.com/laws/ero.htm>. *Amending Act, 1974* Available at: http://www.na.gov.pk/uploads/documents/1491800085_456.pdf. Accessed on May 28th 2020

14. The foreign investment was exempted from the purview of nationalization. See: Asian Development Bank, *Foreign Direct Investment in Pakistan: Policy Issues and Operational Implications*, Ashfaq H. Khan and Yun-Hwan Kim, 1999, Philippines. Available at: <https://www.adb.org/sites/default/files/publication/28178/er066.pdf>. Accessed May 28th 2020

2.1.3. 1980s - Privatization and Export-led Industrialization

The Transfer of Managed Establishment Order, 1978 nullified the Economic Reforms Order of 1972. Further, the Industrial Property Order, 1979 declared that the government could not arbitrarily take over the industries. The number of industries requiring approval of the government was reduced; the private sector was allowed to participate in infrastructure development, power generation, highway construction, etc. Over 100 enterprises were privatized, and government interventions in the industrial matters reduced. The policy encouraged private sector to come forward in industry, consequently, unprecedented increase in manufacturing value added was recorded in this period.

2.1.4. 1990s - Accession to the WTO, Liberalization, and Market-Oriented Reforms

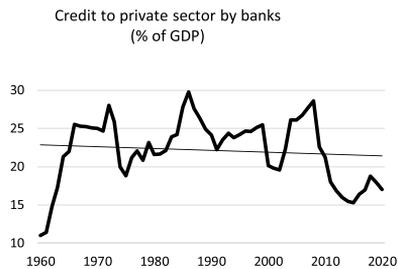
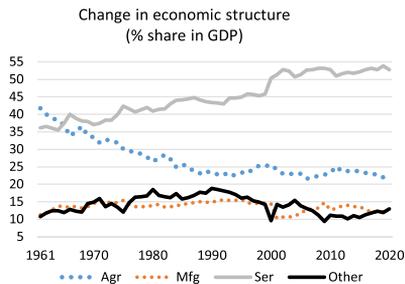
Pakistan was a member of GATT since 30 July 1948 and a WTO member since 1 January 1995.¹⁵ Pakistan actively participated in the Uruguay Round, aiming to strengthen the multilateral trading system, phasing out the Multifibre Arrangement (MFA), integrating the textile and clothing sector into the GATT, bringing agriculture fully under GATT disciplines and providing special and differential treatment to the developing countries. Therefore, the results of the Uruguay Round were rather "discouraging" for Pakistan, mainly due to less than average tariff reductions in its main export products, and slow integration of textiles into the GATT.

The high protection to the domestic industries insulated Pakistan from foreign competition, generated a strong anti-export bias in resource allocation and increased inefficiency, waste and decline of quality. As a result, Pakistan's export structure remained over-concentrated to a small number of agriculture-based products; in more sophisticated product areas the country's export structure remained internationally uncompetitive.

Abolition of industrial licensing and liberalization of the foreign investment regime. Priority to private investment in high-technology and export industries; support to industry with tax concessions and customs duty exemption for export industries and special industrial zones.

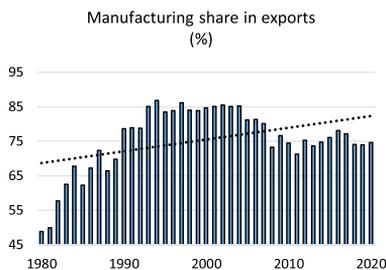
15. <https://www.wto.org> › thewto_e › countries_e › pakistan_e

Industrialization in Pakistan – the key trends



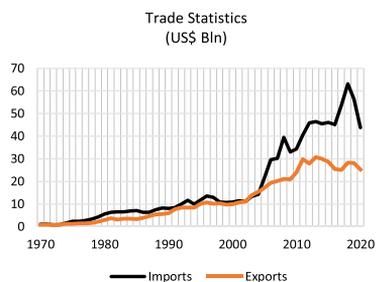
Source: World Bank, World Development Indicators

Source: <https://data.worldbank.org/indicator/FD.AST.PRVT.GD.ZS?locations=PK>



Source: World Bank, World Development Indicators

Source: <https://timeseries.wto.org/>



Source: <https://data.worldbank.org/country/pakistan>

Source: <https://data.worldbank.org/indicator/NE.EXP.GNFS.CD?locations=PK>

The development of engineering industry by "deletion" programme, with incentives for encouraging local content. Protection diminished but industry still remained protected by high tariffs, and selective use of statutory regulatory orders. Government used tax incentives as instruments of industrial policy. The policy objectives were to:

- Prepare industry for freer trading system under the WTO.
- Support export industries by access to raw materials, intermediates and machinery.
- Encourage efficient and competitive import substitution, and ensure availability of essential commodities in the domestic economy.
- Facilitate transfer of technology, research and development, and human resource development.
- Simplify and streamline procedures to make administrative controls easy and transparent.
- Liberalize controls and more reliance on market forces to industrial growth and efficiency.

Consequent to liberalization, the competition increased for domestic industries. However, the main industries such as food, textiles, leather, paper and petroleum enjoyed protection through tariff escalation.

2.1.5. 2000s - Privatization, Diversification and Export Orientation

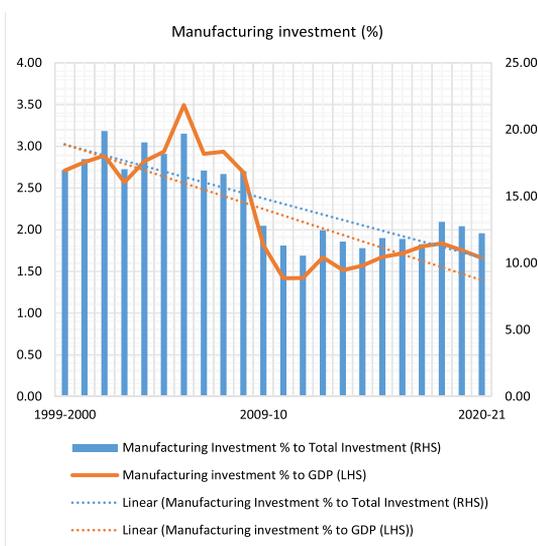
Pakistan fully opened industries (with only few exceptions) to FDI, and gave national treatment to foreign investors in industries with respect to duty, tax exemptions and concessions on imports of plant/machinery, and tax relief for first year allowance for value added, export, hi-tech industry, priority given to engineering/capital goods, chemicals and agri-based industries. Other major objectives included raising capacity utilization of indigenous industry. Textiles and clothing aided by several assistance packages, including R&D grants and freight subsidy to exports. Textiles industry exempt from sales tax, and import of raw materials exempt from tariffs and sales tax. The industry achieved limited success to diversify export products and markets. New policies contributed to joint ventures with foreign firms in mining and energy. State involvement remained largely intact, although efforts were made to privatize some state-owned enterprises.

2.1.6. 2010 onwards – an era of De-industrialization

Despite a liberal investment regime, investment in manufacturing industries did not pick up, mainly due to frequent energy shortages and the high cost of doing business. Government could make some efforts to promote industrialization such as Pakistan Council of Scientific and Industrial Research to assist in R&D on problems faced by the industrial sector, test of raw materials and products. Industries in designated areas and export processing zones to receive exemption from customs duties, surcharges and sales taxes on imported machinery. Incentives for industries through the Export Development Fund, duty drawback scheme, support for specific activities such as subsidies for obtaining standards certification, and export finance facilities. The overall industrial strategies protected domestic manufacturing industries such as clothing, non-electric machinery, transport equipment and processed agricultural products.

For export lead industrialization, the focused remained on textiles and clothing. Industrial policy for textiles subsector are formulated by the Ministry of Textile Industry. Its objective to double the exports could not be achieved but the share of high value added products increased attributable to subsidies for the modernization of machinery, skills development and enabling environmental for exporters.

Provinces introduced their respective industrial policies.¹⁶ However, due to a failure to implement a coherent industrial policy, the country deindustrialized and even lost its share in the world exports. It is recognized that there are challenges that need to be



16. The revised draft of Khyber Pakhtunkhwa Industrial policy 2020 was circulated for stakeholder comments.

addressed, such as power cuts and high electricity prices, the high cost of doing business, outdated technologies, and unskilled labour.

The share of the manufacturing investment in the total investment has remained about 14% on average. Whereas, as a percentage to GDP, manufacturing investment has low and even declined from its level in the year 2000.

At the Federal level, there is no Industrial Policy of Pakistan, nor is there a coherent approach visible in the development planning, which may address the structural change of the economy through sustained industrialization. However, National Economic Council approved 'Pakistan Vision 2025' in 2014. As an export led growth strategy, a target of \$150 billion was set for industry. The Vision envisaged:

- A paradigm shift to provide incentives to industries to move their production from low value to high value products. This will help gain export competitiveness, higher share in global markets, and diversification of products and regions.
- Improvement in supply chains and integration into the world market for Pakistani exporters. Trade diplomacy and regional trade enhancing initiatives could add substantially to Pakistan's export-to-GDP ratio. The improvement in business climate through reforms will also enhance export potential.
- Business clusters will be developed to promote competitiveness across small, medium and large enterprises.

The 'Vision 2025' mentioned to put in place a well-defined industrial policy, which is not yet there after several years. Synchronization between industrial, fiscal, monetary and investment policies is not visible to achieve the Vision.¹⁷ The Public Sector Development Programme (PSDP) is the fiscal policy tool to implement the Vision, but it makes allocations for some sectoral projects only.

17. Pakistan 2025, Planning Commission, Government of Pakistan, Available at: <https://www.pc.gov.pk/uploads/vision2025/Pakistan-Vision-2025.pdf>. Accessed on May 20th 2020

2.2. Economic Upgrading

In Pakistan, the growth emanates from the economic activity taking place along the Indus River, the port city of Karachi in Sindh and in Punjab's industrial cities. The country is ranked as 26th economy in terms of Purchasing Power Parity (2021).¹⁸ Pakistan's economy has grown primarily from agriculture to a service-based economy, where services contribute more than half to the GDP, followed by 23 percent from agriculture and 18 percent from industry. Much of the industrial activity in Pakistan depends on the performance of agriculture, for instance cotton textiles, leather products and agro-food industry. The economy experienced ups and downs from decades of political conflicts and instability, terrorism, military coups¹⁹ and tensions with India and Afghanistan.²⁰ The country is facing current account deficit with exports being 9.6 percent against imports of 16.6 percent of GDP.²¹ To create fiscal space, the successive governments resorted to borrowings, leading to a debt to GDP ratio of more than 87 percent in 2021.²² The GDP growth rate remained 0.53 percent in 2020 compared to 0.99 percent in the preceding year.²³ More recently, the depleting reserves of natural gas, power outages and high utility tariffs affected economic growth and industrial sector. However, the economy has a growth potential in term of huge domestic market, large young labour force and rich natural resources, which can be used for agriculture and industrialization led growth. The geographic location has the potential to turn Pakistan into Asia's trade, energy and transport corridor under the China-Pakistan Economic Corridor (CPEC) as part of China's "One

18. With International \$1,110.08 billion, available at: <https://www.imf.org/en/Publications/WEO/weo-database/2021/April/weo-report> Accessed on September 16th 2021

19. In 1958, 1969, 1977, 1999

20. "War, Coups and Terror: Pakistan's Army in Years of Turmoil", Brian Cloughley, Casemate Publishers, USA, 2008; and 'Pakistan: a Political Timeline', Asad Hashim, 30 Apr 2013. Available at: <https://www.aljazeera.com/indepth/interactive/2012/01/20121181235768904.html>. Accessed on September 16th 2021

21. <https://wits.worldbank.org/CountryProfile/en/PAK>. Accessed on September 16th 2021

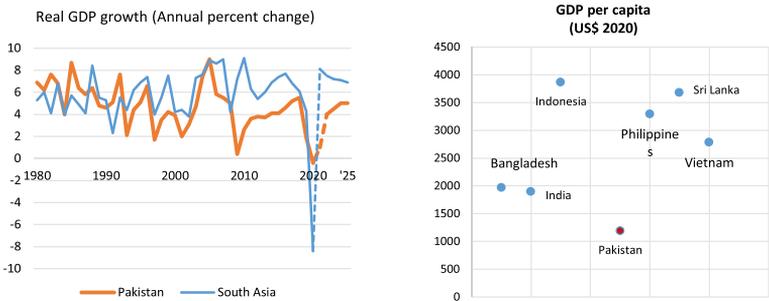
22. https://www.finance.gov.pk/survey/chapters_21/09-Public%20debt.pdf. Accessed on September 16th 2021. For details, see: "Debt Policy Statement", January 2021 - Finance Division. Available at: http://www.finance.gov.pk/publications/DPS_2020_2021.pdf. Accessed on September 16th 2021. Accordingly, the debt, including guarantees and the IMF borrowing, reached to 85 percent after a decline from previously 88 percent of GDP in FY 2019. IMF Country Report No. 19/380, December 23, 2019, page No. 5. Available at: <https://www.imf.org/en/Publications/CR/Issues/2019/12/20/Pakistan-First-Review-Under-the-Extended-Arrangement-Under-the-Extended-Fund-Facility-and-48899>.

23. <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=PK>. Accessed on September 16th 2021.

Belt, One Road (OBOR)” initiative. The CPEC is being extended to cover a broad range of activities relating to trade, industrial development, global value chains (GVCs) and socio-economic development.

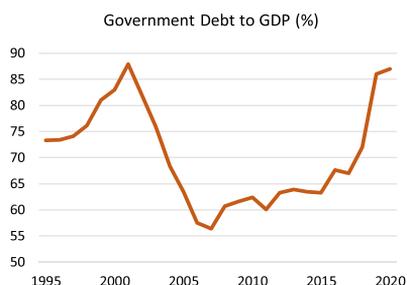
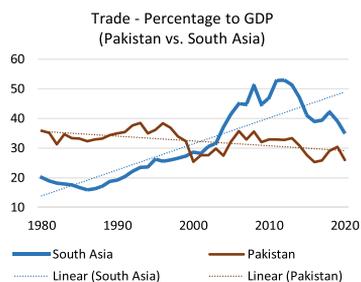
Pakistan’s real GDP growth rate remained below that of the South Asian economies, since the mid-2000s. The interplay of several factors led to this situation. In particular, the lack of fiscal discipline (high subsidies on energy and public sector enterprises²⁴) and expenditure on security widened the fiscal deficit. This led eventually to low investment in industry. The investment and public consumption was partly financed by heavy borrowings. The consequential higher debt repayment liabilities created severe macroeconomic imbalances, and left hardly any fiscal space for development, investment and social safety nets. Investment in the manufacturing did not pick up, and the external imbalances kept on rising when higher demand was met through imports. Expenditures have consistently been in excess of the GDP. Expenditures have grown on the back of increasing debt service payments, which are due to perpetual fiscal deficits and their financing. A significant amount of the expenditure covers losses of state-owned enterprises. The Government also provides a substantial subsidy to the power sector. As a result, the revenues cannot meet even the current expenditures, and the Government has to borrow to continue its functioning.

Figure 1: Pakistan – Indicators of Economic Upgrading



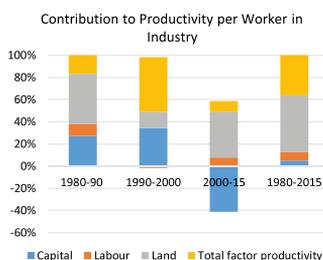
Source: [IMF] www.imf.org/external/datamapper/ Source: [World Bank] <https://data.worldbank.org/>

24. Pakistan International Airlines, Pakistan Railways and Pakistan Steel Mills



Source: [World Bank] World Development Indicators

Source: <https://tradingeconomics.com/pakistan>



Source: Amjad and Awais (2018)

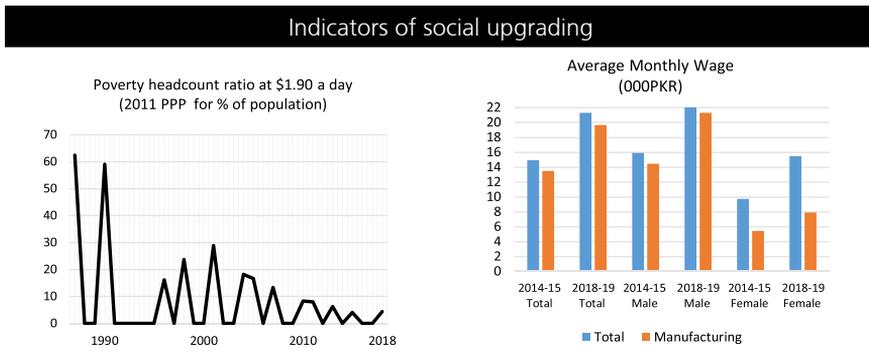
Source: [World Bank] World Development Indicators

To deal with the resource constraint, the government shifted the deficit financing from external and non-bank sources to heavy borrowings from the State Bank of Pakistan and scheduled banks.²⁵ This became a glaring trend after 2010. It proved injurious to the industrialization, as it distorted credit conditions for the private sector, where the creditor's risk is relatively higher. The outcome is a low investment in the manufacturing sector (1.5% of the GDP in FY21). Further, owing to low and declining exports, the balance of payments deficit has increased.

25. The State Bank of Pakistan notifies the scheduled banks, which are carrying on the business of banking in Pakistan, and meet certain conditions relating to administration and maintain required capital and reserve balance as determined by State Bank. 'Statistics on Scheduled Banks in Pakistan, June 2019', page No. 9. Available at: http://www.sbp.org.pk/publications/schedule_banks/June-2019/Title.pdf. Accessed on May 15th 2020

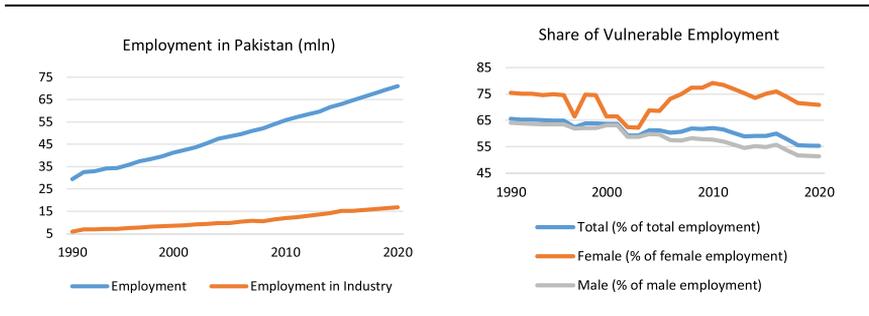
2.3. Social Upgrading

The indicators of social upgrading do not reflect an upgrading trend. The industrial sector provides employment to a little over 15 percent of the labour force. The national poverty ratio, which was 38.8% in 2015-16 is estimated to be more than 40 percent in FY2020.²⁶ Implying 85-90 million people living in poverty. In July 2019, Pakistan got a \$6 billion Extended Fund Facility (EFF) from IMF with stringent conditionalities. Soon afterwards, Pakistan increased the energy tariffs manifold, devalued PKR against US\$, and cut down the development budget²⁷. The series of steps led to wide-spread unemployment and stagflation. The situation aggravates due to inequality in wages on the basis of gender.



Source: [World Bank] <https://data.worldbank.org/>

Source: PBS, LFS 2017-18

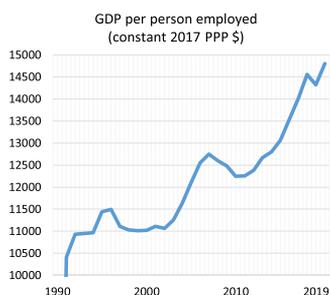


Source: International Labour Office ilo.org/

Source: World Bank Modelled ILO estimate wesodata

26. The Multi-Dimensional Poverty Index measures poverty at national, provincial and district level using Pakistan Social and Living Standards Measurement Survey 2018-19 of Pakistan Bureau of Statistics. Available at: <http://www.pbs.gov.pk/node/2981>. Accessed on 18th May 2020

27. Federal Budget 2019-20. Available at: http://www.finance.gov.pk/budget/Budget_in_Brief_2019_20.pdf. Accessed on 17th May 2020



<https://data.worldbank.org>

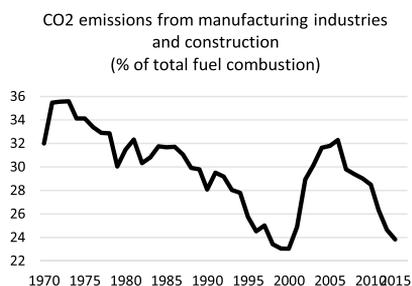


<https://data.worldbank.org/indicator/NV.IND.EMPL.KD?locations=PK>

2.4. Environmental Upgrading

Indicators of environmental upgrading

Indicators of environment upgrading



Pakistan contributes very little to the global greenhouse gas emissions. Pakistan's total GHG emissions in 2008 amounted to 309 million tons of Carbon Dioxide Equivalent, comprising about 54 percent CO, 36 percent Methane, 9 percent Nitrous Oxide and 1 percent other gases. The biggest contributor is the energy sector (50 percent share), followed by a 39 percent share from agriculture

sector. Industrial processes contribute about 6 percent, and other activities account for 5 percent share.

Pakistan's per capita emissions of greenhouse gases (GHG) fall far below the global average; with 1.9 tons of per capita GHG emissions. It stands at a level which corresponds to about one-third of the world average, one fifth of the average for Western Europe and one tenth of the US per capita emissions. It is ranked 135 among the countries of the world on the basis of per capita GHG emissions. However, these facts conceal considerable regional variation, it is important to study the emissions and possible vulnerabilities of the locations of the industrial units. The environmental quality for two regions of Pakistan i.e., Lahore region (comprises four industrial cities situated in

close proximity Lahore, Multan, Sialkot and Faisalabad) and Karachi region (comprising only the city of Karachi). The Sulfur dioxide (SO₂), Surface Mass Concentration (SMC) (kg/m³) and total column Ozone were analyzed for inter-annual trends on monthly and seasonal basis, time series analysis and histogram frequency distribution for the period of January 1980 (just after the end to nationalization of industry and the start of a more open investment environmental to the private sector) to January 2020.

Analysis shows that the SO₂ concentration was less in the first decade i.e., 1980-1990. It started to increase in the second decade i.e., 1991-2000 and attained a peak in the third decade i.e., 2001-2010. The SO₂ concentration started decreasing during 2011-2020, though remained higher than the first decade i.e. 1980-90. It may be due to the reason that the industrialization was highest during 2001-2010 in Pakistan, adding more SO₂ concentration into the atmosphere. The industrialization decreased during 2011-2020, hence the SO₂ concentration also reduced. The environmental quality, in the industrial regions studied, improved during the last decade (i.e., 2011-2020) seemingly due to reduced industrialization.

2.5. Industrial Policies in Pakistan: what worked, what did not and why?

Empirical analyses was conducted to find out the behavior of industrialization drivers for Pakistan.²⁸ As explanatory variable, the analysis encompassed indicators for: stage of development, size of the internal market, export orientation, level of financial development, public and private investment, exchange rate stability, reliance on natural resources, level of education of labour force, geographic advantage and the political regime. Pakistan underwent paradigm shifts in policies from nationalization of '70s to privatization, then deregulation and openness. Therefore, to gauge the impact of such shifts, analysis was conducted for three different phases: a) from 1970 to 1990; b) from 1991 to 2017; and c) from 1970 to 2017, which mostly mark the changing policies. Results from 1970 to 1990, show that the GDP per capita and the type of the government are significant during these 21 years. The military rule dominated in this period. A policy of nationalization of industry was followed by both democratic and military regimes. Consequently, the industrial development remained less than the

28. UNIDO (2017). 'What factors drive successful industrialization? Evidence and implications for developing countries', Bruno Martorano, Marco Sanfilippo, Nobuya Haraguchi,

'80s and '90s. During 1991 to 2017, population, gross fixed capital formation, mineral rents and real effective exchange rates were the significant factors. For the complete period 1970-2017, the manufacturing value added (MVA) remained dependent on population, real effective exchange rate index, mineral rents, GDP per capita and gross fixed capital formation. This shows that the rising per capita income generated demand in the domestic market, which pushed towards industrialization. On the other hand, Pakistan could not make use of its strategic position of having port cities.

Trade Arrangements

2.5.1. European Union's Generalised Scheme of Preferences Plus (GSP+)

The EU is Pakistan's second most important trading partner, accounting for 14.3% of Pakistan's total trade in 2020 and absorbing 28% of Pakistan's total exports. Pakistani exports to the EU are dominated by textiles and clothing, accounting for 75.2% of Pakistan's total exports to the EU in 2020.²⁹ Since 1 January 2014, Pakistan is a beneficiary to the EU's Generalised Scheme of Preferences with Special Incentive Arrangement for Sustainable Development and Good Governance (GSP+).³⁰ Consequent to this Scheme, Pakistan was able to increase its exports by more than 50 per cent. The adherence to the conditionalities is of great significance to Pakistan, as about 95 % of Pakistan's exports to the EU are covered under this Scheme. This GSP+ status is set to expire on Dec 31, 2023, and the EU will decide about extending the Scheme for 2024 after reviewing the performance.

The last two-year report (2018-19) was issued in 2020. The EU's Mid-Term Review³¹ and the Assessments of Pakistan on GSP+ conditionalities noted gaps between the commitments and the efforts for implementation of

29. <https://gsphub.eu/country-info/Pakistan>

30. The Scheme implies full removal of tariffs on more than 66 per cent of all tariff lines. To continue the GSP+ treatment, Pakistan is obliged to ensure effective ratification and implementation of key International Conventions on human and labour rights. These include ILO's eight Core Labour Conventions, and conditionalities relating to governance and environmental protection. These conditionalities promote sustainable development and good governance besides providing export opportunities.

31. European Commission (2017), Mid-Term Evaluation of the EU's Generalised Scheme of Preferences (GSP). Available at: trade.ec.europa.eu/doclib/html/156085.htm

labour rights.³² Notably, the weak labour inspectorate system and systematic disregard of freedom of association and collective bargaining. However, the initiation of Child Labour Surveys by the provinces and the Federal Capital were looked as positive developments.³³ Concerns persist over the capacity of the labour inspection system i.e. the low number of labour inspectors relative to the number of enterprises, and the adoption and implementation of the Occupational Safety and Health Risk (OSH) legislation.

2.5.2. China-Pakistan Economic Corridor (CPEC)

China is Pakistan's biggest trade partner in imports with a share of more than 25 percent, and the second largest export destination.³⁴ Industrial cooperation and trade linkages are expected to increase under the China-Pakistan Economic Corridor (CPEC), which focuses on the development of Gwadar port, road and rail transportation for regional connectivity. The work on CPEC is going on as per a Long Term Plan (2017 – 2030).³⁵ The CPEC projects will promote industrialization through domestic and foreign investment, and trade. Initially, nine Special Economic Zones (SEZs) have been planned in different areas of Pakistan.³⁶ These SEZs will promote industries, in particular, textiles, garments, automobiles and chemicals. These zones will provide simpler rules for establishing a business, streamlined regulatory enforcement and expedited customs procedures, besides infrastructure and utilities.³⁷ According, to the SEZ Act, 2012, all labour and employment laws of Pakistan shall be applicable to SEZ. Presently, these SEZ projects are at various stages of completion.

32. Brussels, 10.2.2020 SWD(2020) 22, Final Joint Staff Working Document, 'The EU Special Incentive Arrangement for Sustainable Development and Good Governance ('GSP+') assessment of Pakistan covering the period 2018 – 2019'. Available at: <https://ec.europa.eu/transparency/regdoc/rep/10102/2020/EN/SWD-2020-22-F1-EN-MAIN-PART-1.PDF>. Accessed on May 19, 2020

33. Provincial laws on minimum age of work and hazardous occupations are there, and the provincial governments enforce laws to ensure prosecution against child and forced labour. Inspections in Punjab and Khyber Pakhtunkhwa led to several hundred arrests and prosecutions.

34. The imports mainly consist of machinery and finished goods, and exports are dominated by raw material, primary or intermediate goods. The trade balance is consistently in deficit for Pakistan, and stood at USD -10.38 million (2019). ITC, Bilateral Trade between Pakistan and China. Available at: <https://www.trademap.org/>

35. Pakistan Planning Commission, available at: <http://cpec.gov.pk/long-term-plan-cpec>

36. Ibid. available at: <http://cpec.gov.pk/progress-update>

37. Pakistan Board of Investment, SEZ Act, 2012. Available at: <https://invest.gov.pk/sites/default/files/2019-01/SEZAct2016e.pdf>

2.5.3. Export Processing Zones

Export Processing Zones (EPZs) Authority has established EPZs in cooperation or under joint venture arrangements with the private sector. There are six operational Zones in Pakistan,³⁸ which contributed about 3 per cent in Pakistan's exports during 2017 to 2019. The Zones provide a number of fiscal incentives to the industries, such as duty-free import of machinery, equipment and materials; exemption from import and exchange control regulations; repatriation of capital and profits, and no sales tax on input goods including energy. The EPZA administers the labour laws.³⁹ The Export Processing Zone Authority (Control of Employment) Rules, 1982 regulate the conditions of employment, workers' rights and resolution of grievances. Accordingly, the EPZs have got exemption from certain labour laws. The law in the EPZs prohibits trade unions and strikes. The ILO has constantly highlighted Pakistan to streamline its labour legislation in conformity with the fundamental Convention 87. Its applicability to EPZs' will grants the workers the freedom of association. Also, suitable amendments in the legislation are required to fulfil the obligations under the Convention 98 to ensure that all the categories of workers get their rights.

2.5.4. Trade Agreements

Pakistan's preferential trading arrangements (PTAs) are: GSP with USA, Canada, Russia, Norway, Switzerland, Turkey, Japan, New Zealand, Kazakhstan, under Australian System of Tariff Preferences and GSP+ with the EU.⁴⁰ In 2020, these PTAs accounted for about 60 per cent of Pakistan's exports and a quarter of imports.⁴¹

Pakistan is also a signatory to several regional trade agreements (RTAs).⁴² South Asian Free Trade Agreement (SAFTA), 2006 is plurilateral, whereas bilateral RTAs are with Sri Lanka, 2005; Malaysia, 2008; and China, 2009; with meagre exports to the former two countries. China and SAFTA countries have an export share of about 10 per cent each. Pakistan imports massively from China, which is about 25 per cent of the total imports. The share of the SAFTA is about 3.4 per cent in imports.

38. These are in Karachi, Sialkot, Risalpur, Gujranwala, Saindak and Duddar.

39. <https://epza.gov.pk/production-oriented-labour-laws/>

40. WTO, <http://ptadb.wto.org/SearchByCountry.aspx>

41. The PTAs with Mauritius, Indonesia and MERCOSUR have a small share of Pakistan's exports.

42. WTO, <https://rtais.wto.org/UI/PublicSearchByMemberResult.aspx?membercode=586>

Pakistan-Sri Lanka Free Trade Agreement (PSFTA) became operational from 12th June 2005. Still the trade volume is quite low (USD0.4million). The implementation of Phase-II of the China-Pakistan Free Trade Agreement (CPFTA) grants Pakistan market access in the Chinese market at par with ASEAN countries. The Protocol to amend the CPFTA was signed in April 2019, while the Tariff Reduction Modalities (TRM) have been implemented from 1st January 2020 by both sides.⁴³ The actual trade impact will therefore be visible after some time. Pakistan is also in the process of trade negotiations with Central Asian Republics and African countries, besides FTAs with Japan and Thailand.

The labour provisions in the trade agreements have increased not only quantitatively but in terms of their normative scope and coverage too.⁴⁴ As far as the case of Pakistan is concerned, other than the GSP Plus Scheme of the EU, none of the above mentioned trade arrangements and agreements have explicit 'environmental provision' and 'labour clause' or any other side agreements/ Memorandum of Understanding dealing with labour or social issues. The labour provisions in the GSP Plus are conditional. However, considering the gaps between the commitments and the implementation, these appear to be promotional in nature. The EU has earlier as well opted for a political dialogue on the complaint of bonded child labour in Pakistan instead of initiating an investigation. Subsequently, the EU increased its support to the activities of the ILO's Programme on the Eradication of Child Labour in Pakistan.⁴⁵

The GSP Plus has added to the economic, social and environmental upgrading through the linkages of trade, industry and compliance to conditions. For environmental, the EU noted in the third periodic review of GSP+ that Pakistan's efforts to implement the environmental conventions have improved, and the relevant legislative measures are largely in place. At the social upgrading side, the GSP Plus has successfully created awareness amongst the workers for demanding their rights. At the government level,

43. Pakistan Economic Survey, 2019-20. Available at: http://www.finance.gov.pk/survey/chapter_20/08_Trade_and_Payments.pdf

44. After the inclusion of labor clause in NAFTA, the number of labor clauses in trade agreements are on the rise. 34 percent of TAs signed in 1995 included LCs, 42 percent in 2000, 50 percent in 2005, 70 percent in 2010 and 84 percent in 2014.

45. Franz Christian and Ebert Anne Posthuma, Labour provisions in trade arrangements: current trends and perspectives, ILO, International Institute for Labour Studies, Discussion paper, available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_192807.pdf

a comprehensive institutional mechanism has evolved for coordinated reporting at the Federal and provincial levels. In 2016, Government of Pakistan formed Treaty Implementation Cells (TICs) at federal and provincial levels, and in Gilgit Baltistan, Azad Jammu and Kashmir. The supervision of the implementation of international treaties' commitments including 27 UN Conventions to which Pakistan is a signatory, has been mandated to the TICs. Punjab TIC considers that the government's legislative and institutional progress to protect workers and human rights has to be matched with the implementation of the already devised legislative framework. In October 2019, the Standing Committee of the Sindh Provincial Assembly discussed the GSP+ conditionalities.⁴⁶

At the Federal level, the TIC is instituted in the Ministry of Commerce. It has a participation of ministries of: Ministry of Industries and Textile, Overseas Pakistanis and Human Resource Development (National Industrial Relation Commission, Workers Welfare Fund and Employees Old Age Benefit Institution), Foreign Affairs, Interior, Anti-Narcotics and Climate Change. The Provincial TICs are reporting members in Federal TIC.⁴⁷

It can be concluded that the labour provisions in trade arrangements can push promotion of labour standards, specifically through the mechanisms of international economic governance. Legally binding commitments along with deep cooperation provisions provide a preferred route to improve labour standards. Pakistan's experience with the GSP Plus suggests that the labour related conditionalities did not hinder trade as a protectionist tool, instead they helped provide greater market access.⁴⁸

The provincial government of Punjab is implementing Punjab Industrial Policy 2018. The Policy addresses the factor markets issues for market failures and provides support to address information failures that constrain industrial performance. The policy has set targets for the year 2023, which include:

46. <https://www.thenews.com.pk/print/542496-pa-human-rights-committee-discusses-un-conventions-implementation> October 18, 2019

47. The PTICs have a participation of provincial departments of: Human Rights, Climate Change, Industries & Commerce, Labour and Human Resources, Provincial Industrial Relations Commission, Workers Welfare Board, Provincial Employees Social Security Institutions, Minimum Wage Board, Child Labour Unit, etc.). National and international non-profit and civil society organizations, such as PWF, ILO and UN Women, also participate in the TICs.

48. For an interesting discussion, see: 'Labor Clauses in Trade Agreements: worker protection or protectionism?' Céline Carrère, Marcelo Olarreaga, Damian Raess August 2017, https://www.wto.org/english/res_e/reser_e/gtdw_e/wkshop17_e/rass_e.pdf

achieving an average industrial growth of 10% per annum; increasing the formal employment creation to 1.2 million annually; training 0.5 million skilled labour annually and improving product competitiveness in priority sectors.

To implement the policy, an industrialization strategy has also been developed under the Punjab Growth Framework. Accordingly, the government will: support provision of affordable and quality industrial land and infrastructure; increase affordable credit to SMEs; up-grade human capital for industrial growth; strengthen and develop key clusters; provide business development services; implement measures to increase private sector investment (domestic and international); and use of spatial planning and spatial strategy measures to address disparities and improve performance of industrial assets.

The province has also introduced Punjab Small Industrial Estate Policy-2020, reorganization plan of Punjab Small Industries Corporation, and establishment of small industrial estate comprising on 50 acres land. However, the implementation of these policies is at the nascent stage, therefore the impact will take some time to be visible.

Chapter Three

Industrial Policy and Economic, Social and Environmental Upgrading in the key Industries

This Chapter reviews the industrial policy and explores economic, social and environmental upgrading for Pakistan's the well-established export industries i.e. textiles and clothing, surgical instruments and leather products. These industries are scattered mainly in Sindh and Punjab provinces, therefore industrial policy will be seen at the provincial level as well.

3.1. Textiles and Clothing

In Pakistan, the history of cotton cultivation and textiles products dates back to the 4th and 5th millennium B.C.⁴⁹ Contributing nearly one fourth to the industrial value-added, textiles is Pakistan's most important manufacturing industry.⁵⁰ In 1947, Pakistan started with two composite textile mills in Punjab.⁵¹ Cotton was already grown there, and its production increased during the '50s with extensive cultivation. Afterwards, government's 'Open General Licensing (OGL) Scheme' facilitated import of textile plants and equipment.⁵² Consequently, several textile mills were established, mostly in Punjab.⁵³ By end of '70s, Pakistan exported textiles to Africa, and to Europe by the mid '80s.

Over the years, Pakistan developed an export oriented textiles industry, with significant implications for the economic and social upgrading. Pakistan is one

49. The remains of textiles and its production tools were found from the Indus valley civilization.

50. The industry has the highest weight of 20.91 in Quantum Index Manufacturing (QIM).

51. Okara Textile Mills, Okara and Lyallpur Cotton Mill in Faisalabad (Formerly Lyallpur).

52. 'Import Licensing in Pakistan', Syed Nawab Haider Naqvi, The Pakistan Development Review, Vol. 4, No. 1 (Spring 1964), pp. 51-68

53. Notable are: Star Textile Mills, Kohinoor at Rawalpindi, Nishat, Crescent Textile in Faisalabad, Colony Textiles Mills Limited in Multan, and Gul Ahmed Textile Mills in Karachi.

of the leading cotton producers (4th in 2021 with 2.4 million metric tons)⁵⁴ and cotton yarn exporter. This determines the industry's comparative advantage for cotton textiles' production. More than a third of cotton produced ends up in domestic consumption as final product, while the remaining is exported as yarn. This labour intensive industry provides employment to about 40 percent of the industrial labour force. It offers entry-level jobs for unskilled labour, especially in the garment manufacturing segment, which employs a large number of female workers.

Pakistan is engaged in all the five stages of value addition in the processing of textiles and clothing. These are: i) cotton ginning; ii) Spinning - yarn production; iii) Weaving and knitting -Raw fabric production; iv) Dyeing and finishing – complete fabric; and v) made-ups and garments. Thus, the main products include yarn, fabric, home textiles, towels, knitwear and readymade garments.

Pakistan's textile and clothing industry comprises large scale manufacturing units in the organized sector, micro-small and medium enterprises (MSMEs) and small and medium enterprises (SMEs). The industry exports grey, white and dyed fabrics, and home furnishings (bed sheets, curtains, towels, etc.), personal clothing and hosiery. The industry supplies to the leading fashion brands and trading companies including leading global brands like C&A, Zara, Levi's, Ralph Lauren, American Eagle, Next. H&M, Nike, Adidas, Puma, etc. which reflects the quality and potential of the industry to participate in the global value chains.

Policies and Measures for Economic Upgrading

The textiles industry has traditionally enjoyed protection through high tariffs, various duty concessions and support for upgradation. Here is an overview of the relevant policies.

Textile Vision – 2005

The 'Textile Vision – 2005' was announced in the year 2000.⁵⁵ The Vision highlighted the need to increase investment and to shift production

54. <https://www.statista.com/statistics/263055/cotton-production-worldwide-by-top-countries/>

55. The policy envisaged an investment of Rs 333 billion during 2000 to 2005. Out of this amount Rs 200 billion were earmarked for BMR programs and the remaining Rs 133-billion were meant for expansion of the industry.

towards value added products. It aimed to make the industry internationally integrated, globally competitive and to exploit opportunities by the Multi-fiber Arrangements (MFA) phase out.⁵⁶ However, the post-quota scenario increased the global competition.

Realizing the importance of focusing on textiles industry for the economy of the country, a separate Ministry was created in 2004. The Ministry was assigned responsibilities to formulate strategies and programs to support the textile industry, which came in the form of Textiles policies discussed below.

Textile Policy 2009-2014

The 'Textile Policy 2009-2014' envisaged establishment of a Textiles Investment Support Fund (TISF) and Technology Up-gradation Fund (TUF).⁵⁷ The Policy supported the industry through duty-free import of machinery, drawback of local taxes and duties at 3 percent for garments. The most important contribution of the Policy was creation of a 'zero-rated' regime for the industry for sales tax. All the inputs including raw material, intermediate inputs and energy were charged zero sales tax.

In this period, the industry suffered huge losses (estimated US\$5bln), and faced acute shortage of energy. The Policy could not achieve its objectives owing to implementation issues. The committed funds could not be released, and the objectives of TUF could not be met.

Textile Policy 2014-19

The Policy set an export target of US\$26 billion and creation of 3 million jobs through expansion and investment. The Policy continued with TUF and duty free import of related machinery, along with duty drawback scheme. To further encourage the garments sector, its percentage for duty drawbacks was increased from 3 to 4 percent.

However, the Policy could not achieve its objectives, owing to financial difficulties. The funds of PKR 10 billion were released as against a commitment of Rs.65 billion. In addition, the shortage and the rising cost of energy hindered growth.

56. The Multifiber Arrangement was an international trade agreement on textiles and clothing that was active from 1974 till 2004.

57. Under this scheme, for capital intensive projects, the government would pick-up 50% of the interest cost of new investment in plant and machinery. For small investments, the government was to contribute up to 20% of the capital cost as a grant.

Prime Minister's incentives Package for Exporters (2017-2021)

It was a financial package of PKR 180 billion. It aimed to increase exports by US\$3 billion by the end of the financial year 2017. The duty drawback rate was increased for the garment segment from 4 to 7 percent. Sales tax on textile machinery import was removed, and customs duty on import of cotton and man-made fiber (except polyester) was also removed. The PM's Package is to continue till 2021. Further, the industry can import related machinery duty free, subject to reduced energy tariff as well as removal of sales tax on packaging.

Much in line with the earlier policies, this Package could not meet its objectives due to: non-release of funds, frequent upward revision of energy tariffs, and liquidity crisis due to delays in the duty drawback refunds to the exporters. Moreover, the Federal Budget 2019, withdrew the zero-rating facility. Subsequent to which the industry conducted wide-spread protests.

Textile Policy 2020-25

In March 2020, the Textile Policy 2020-25 was prepared aiming to increase exports to \$28 billion by 2025. The Policy addresses some of the key areas including energy shortage and fixing of energy tariffs for the next five years; formation of Specialized Economic Zones with Plug and Play facilities; shift from cotton to man-made fibres; and enhancing credit limit for long term financing facility to upgrade the entire value chain. The Policy acknowledges that no state-of-the-art infrastructure is available for Special Economic Zones, which shifts common infrastructure costs to the investors. The Policy envisages construction of workers' residential colonies through the Prime Minister's Housing Scheme around the SEZs. In October 2021, the Policy is in the pipeline and awaits approval from the Federal Cabinet.⁵⁸

To conclude the discussion, the textile policies were of limited benefit to the industry. The industry did not meet the export targets set from time to time, mainly due to the paucity of funds, and procedural issues in implementation.

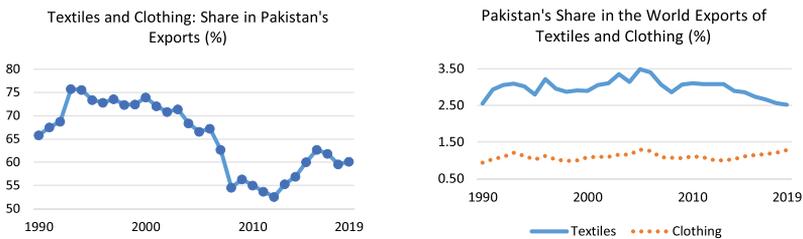
Economic Upgrading

Pakistan's textile and clothing exports have maintained a share of more than fifty percent in the total exports of the country. The export performance

58. <https://www.dawn.com/news/1651528/ecc-fails-to-garner-support-for-draft-textile-policy-2020-25>, October 12, 2021

during the last five years shows that the textiles and clothing exports gained an average share of about 60 percent in Pakistan's exports. The market share for clothing has improved. 'Cotton & Cotton Textiles' have a share of about 97 percent in the textiles' exports. This reflects the country's advantage of having an emanating from cotton production. However, these exports are concentrated to a few markets, EU is the major market. This is reflected in the Export Penetration Index that ranges from 7.6 in 2010 to 8.3 in 2015. After 2014, owing to the EU's GSP+ facility, the Revealed Comparative Advantage of the industry improved from 15.68 to 16.95 in 2017. In 2020, 75.4% of Pakistan's total exports to the EU comprised textiles and clothing.⁵⁹

Figure 2: Textile and Clothing Exports



Source: <https://timeseries.wto.org/>

Source: <https://timeseries.wto.org/>

The figure 1 suggests that the country's exports in the textiles segment have decreased, whereas those for the clothing segment have increased. This implies that the industry has moved from the lower value added segment to higher value added segment. This increase is not broad-based for all product categories but the exports are highly concentrated (83 Percent) under three Chapters of Harmonized System (HS): Chapter 61 consists of articles of apparel and clothing accessories-knitted or crocheted; Chapter 62 covers not knitted or crocheted articles; and Chapter 63 comprises made-up textiles. These are high value added manufacturing segments. The exports of low value added segments have a declining trend.

Pakistan's 70 percent of the exports in Chapter 61 are under five categories, which maintained their share of more than 70 percent from 2010 to 2020.⁶⁰ This reflects a consistent specialization for these categories. However, one of the categories (HS 6105) lost its share owing to decreased competitiveness

59. https://webgate.ec.europa.eu/isdb_results/factsheets/country/details_pakistan_en.pdf

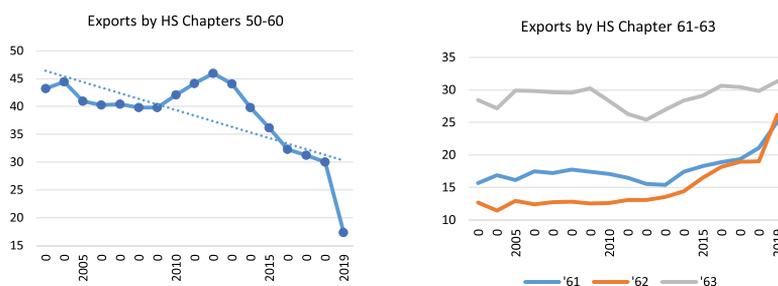
60. HS lines: 6115, 6110, 6105, 6103, 6109

in the world market, as world exports of this HS line almost doubled during this period.

The exports in Chapter 62 are even more concentrated where on average during the last five years, 70 percent exports were in HS line 6203 i.e. "Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts". Pakistan increased its competitiveness over the years, and was able to increase its exports by 145 percent from 2010 to 2020, though world exports in this duration actually declined by 5 percent. As far as the unit values are concerned, from 2010 to 2020, Pakistan was able to get improved value by 36 percent. Likewise for HS Chapter 63, 80 percent exports were in HS line 6302. It consists of Bedlinen, table linen, toilet linen and kitchen linen of all types. Here, the world exports grew by 7 percent from 2010 to 2020, whereas Pakistan's exports grew by 23 percent. Pakistan hence increased its market share. However, the unit values fetched declined by 5 percent, though the total exports in terms of value increased from US\$ 2639 billion in 2010 to US\$ 3257 billion in 2020.

Therefore, the data shows an economic upgrading that is clearly visible for HS line 6203, where Pakistan's exports grew in terms of value from US\$849 billion in 2010 to US\$2088 billion in 2020. This was partly due to the natural endowment as the cotton produced in Pakistan is suitable to produce the denim fabric. The other contributory factors relate to process upgrading, the use of information technology and better skilled labour.

Figure 3: Trend in Exports



UN Comtrade | International Trade Statistics Database

UN Comtrade | International Trade Statistics Database

Social Upgrading

The field visit survey shows a social upgrading in terms of wage increase by more than 20 percent for skilled labour along with an increase in demand for workers having IT skills. The major exporters are well organized, give the facilities to the workers such as meals and medical. The skill upgradation is ensured through regular trainings. Whereas, the smaller production units lack the facilities. The following major issues in the decent work remain to be addressed.

Temporary jobs: In several instances, the permanent workers (management, accounts, supervision and quality control) are less than two percent of the total employees. Other workers remain temporary for several years on daily wages, no job contract or employee card is provided. There is no social security and medical facilities. There is no concept of sick leave.

Low wages: Wage paid is the minimum wage of Rs20,000/month as announced by the government. However, this is far below the living wage, which is not binding legally. In the case of piece-rate workers, the wages are low for female workers, who are about 80 percent of the workers.

Inhuman conditions: Lack of toilets lead workers urinating in open spaces. Workers avoid water intake or hold urine, which cause discomfort, urinary tract infections, and kidney pain.

Long working hours: 14 hours a day is normal working time with no holidays. At times have to work for 18 hours but no overtime is paid.

Harassment of female workers by the supervisors is common.

No trade union activity, no collective bargaining is allowed. Freedom of association is not there such that union could bargain and have an agreement on behalf of all the workers. International companies are not supporting unions.

Safety equipment's inspection is necessary for instance hydrant system. Strong institutions are needed – for instance in the case of processing/printing industry (a textiles' process segment) the assessment of the boilers is an important issue – there have been accidents in several factories. The lobbies and walkways in the factories are blocked by bundles of made up garments, and in case of fire there are no exits.

Pakistan has made substantial progress in implementing and upgrading its relevant legislations. However, the legal system does not facilitate/ or address adequately the grievances of the workers – from labour court to the supreme court is a lengthy, expensive and time consuming process. Owing to this, in the history only a couple of cases could only went through this complete process. This system discourages workers to raise their issues using available legal options. Workers' councils are taken as a substitute for trade unions. Likewise, workers can submit/ communicate to their company their problems, issues and grievances directly (and anonymously) by using applications like WOVO. Eventually, this will undermine the role of the trade unions and workers' bodies. GVCs are introducing direct complaint system with the management, it will further reduce the role of workers' organizations and trade unions.

Textiles Industry- Environmental upgrading

In the textiles industry, the boilers, thermo pack, and diesel generators produce pollutants that are released into the air. The pollutants include Suspended Particulate Matter (SPM), sulphur di oxide gas, oxide of nitrogen gas, etc. Pollutions causing air pollution are sulphur dioxide, metal sulphate, and exhaust gases emitting from poly-condensation, melt spinning process and the fluff generation during spinning and weaving processes. During steam generation process carbon, carbon –dioxide, carbon-monoxide, and sulphur are produced, causing air pollution.

The environmental protection agency finds that the values of NO_x and SO_x are found to be within the National Environmental Quality Standard (NEQS) limits. The values of CO_x show high variations. In textile-processing, indoor air pollution includes oil and acid mists, dust and lint, solvent vapours and odours. In textile printing processing units, ammonia emissions are the most cumbersome.

The daily usage of water in the textile industry is in millions of gallons. The water is supplied by the municipal authorities, and is also obtained from on-site wells. The water-waste containing industrial effluents are disposed of into the water body of the River Ravi, Lahore. The inadequately treated water contains PBDEs, phthalates, organochlorines, lead, and many other chemicals not only cause health hazards but also being a major reason for the river Ravi to die.

More recently, due to the impact of integration with the GVCs, the textile units have invested in environmental upgrading particularly for water treatment plants. Here too a difference is apparent for larger production units as compared to the smaller units.

3.2. Surgical Instruments

The origin of Taxila in the Punjab province, where copper made surgical instruments were found, dates back to c. 1000 BCE.⁶¹ Later, the surgical instruments' manufacturing started in the 19th century, when doctors of a Mission Hospital, Sialkot gave some used instruments to the local artisans. The local expertise of surgical instruments manufacturing was institutionalized when the British Government established a metal industry development center in 1941. Eventually, this step helped the industry to shift basic metal products to precision surgical instrument manufacturing. In 1947, Pakistan had 17 registered surgical manufacturing units in Sialkot.

In the early twentieth century, clusters of surgical instrument production were found in Sheffield (UK), Nogent-sur-Marne (France) and Solingen and Tuttlingen (Germany). With the exception of Tuttlingen, other locations did not sustain as significant manufacturing centers. This gap was filled by other countries, particularly Pakistan, Malaysia, Poland and Hungary. Afterwards, several countries from Asia (China, India, Malaysia, Singapore, Taiwan), and Latin America (Brazil, Costa Rica, Dominican Republic, Mexico) entered the industry.

In Pakistan, the surgical instruments industry is a part of the larger 'Medical Device' Global Value Chain. This chain can be divided into three distinct stages: pre-production, production and after sales services. The GVC of medical supplies consists of: disposables, therapeutic devices, capital equipment, articles of base metal and consumable medical supplies. In the pre-production R&D, Pakistan has no contribution. Product orders from

61. Some ruins of Taxila date back to the time of the Achaemenid Empire in the 6th century BCE, followed successively by Mauryan Empire, Indo-Greek, Indo-Scythian, and Kushan Empire periods. The original archaeological survey and excavations were carried out before the Second World War by Sir John Marshall. Buddhist sacred books have described Taxila as a place of learning or a university town. Its standing as a centre of excellence for medical education is well documented. The discovery of surgical instruments at this ancient seat of medical education offers additional and unequivocal validation of its standing in surgical practice. For more details, see: 'Surgical Instruments in the Taxila Museum', Nasim H Naqvi, *Medical History*, 2003, 47: 89-98. Available at: <https://pdfs.semanticscholar.org/c150/126f816d0e0516296a73221cb44ce1690d1f.pdf>

overseas buyers are received, which are produced according to specifications by the manufacturers in Pakistan.⁶² Pakistan participates in the ‘precision metal works’ of component production stage, and then in the ‘Assembly’ of various components. The finished products are ‘Surgical and Medical Instruments’ for general surgery.

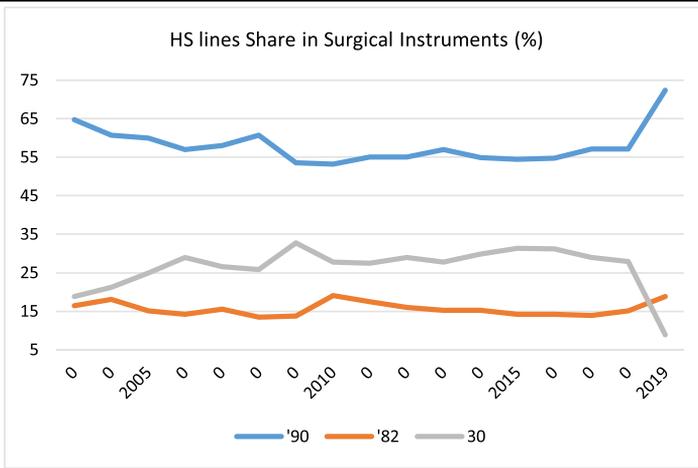
I. PRE-PRODUCTION-STAGE				
1. R&D	Product Prototype	Process Development	Regulatory Approval	Sustaining Production
2. Inputs/Material Supplies	Resins/Polymers	Metals	Chemicals	Textiles

II. PRODUCTION STAGE					
1. Component Manufacturing	Software Development	Electronics Electrical Parts	Precision Metal-Work	Plastic Extrusion & Molding	Textiles-Knitting
2. Assembly	Assembly	Packaging	Sterilization		

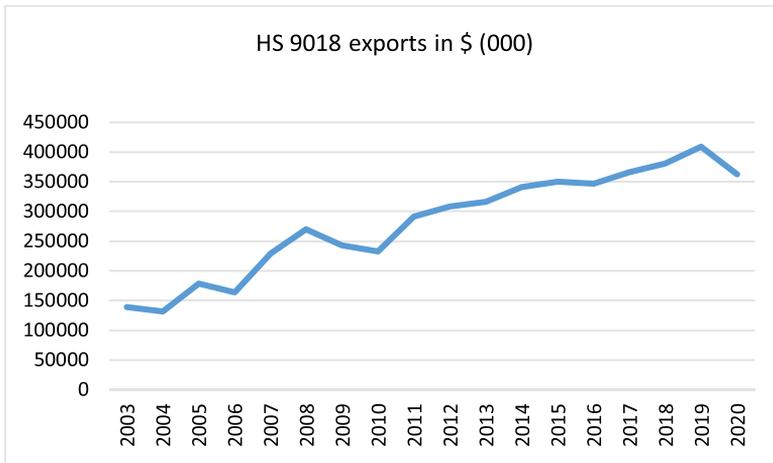
III. SALES-AND-DISTRIBUTION-STAGE						
1. Finished-Products	Capital-Equipment	Computer-Software	Therapeutic-Devices	Surgical-and-Medical-Instruments	Disposables	Consumables
2. Marketing	Cardiovascular	Orthopaedics	General-Surgery	Infusion-Systems	Others	
3. After-Sales-Services	Training	Consultancy	Complaints management	Repair & Maintenance		
* Note: Pakistan's participation is shown in bold grey						

Pakistan produces semi-finished products that are further processed and repackaged in Germany, Europe and the USA. These are then marketed internationally with the buyers’ brand name and logo. The local consumption is low due to low healthcare budget, and low demand from the private sector hospitals. The following figure shows Pakistan’s export shares.

62. The major industrial inputs are stainless steel and steel forgings, these are imported as well as produced locally. The other required material is processed chemicals. The industry sources raw materials like Titanium, Stainless Steel, Aluminium and Brass mostly from other countries. Steel is imported from Japan, France, Germany and Taiwan.



The HS line 9018 is the best performer, which consists of “Disposables - Instruments and appliances used in medical, surgical, dental or veterinary sciences”. This category shows an increase in exports by 55% from 2010 to 2020.



Overall, the share of this industry is small (1.7 percent) in total exports of Pakistan but it has linkages with other industries e.g. steel, chemicals, machine parts and has a large vendor base. It contributes to the national economy through foreign exchange earnings, and pro-poor employment and income generation in and around Sialkot.

In the value chain, Pakistan's exports are highly concentrated (97 percent) in a single category of disposable medical and surgical instruments. This particular category is the focus of our analysis for economic and social upgrading. An extensive case study of Sialkot cluster was conducted with field visits to production units and vendor industry.

Sialkot Cluster

Sialkot, Punjab is a traditional cluster for manufacturing of export-oriented surgical instruments. Sialkot has a share of about 99 percent in surgical instruments' production, of which 95 percent is exported. The products are exported to the United States and Western Europe. During the last two decades, the industry has retained an unwavering export share.

The artisans in the cluster possess decades of experience in production that has passed through generations. Abundant cheap labor supply is available to the manufacturers. The industry is a contract/ vendor based light engineering industry that operates through bulk buyers/traders. Various vendors perform the manufacturing processes at different places, thus the phases of producing surgical instruments take place at different premises.

There is a large number of manufacturers and vendors in the Sialkot surgical clusters, the estimates of various organizations differ about the exact number. These are estimated to be about 3500-4000 manufacturing and vendor units, which provide jobs to more than 150000 workers in the manufacturing of surgical instruments and related activities. According to the Surgical Instruments Manufacturing Association of Pakistan (SIMAP), one employment in the industry creates 3-4 indirect jobs. Hence, the number of workers engaged through backward and forward linkages is large. The cluster consists mainly of small and medium enterprises (95% SMEs). There is a small number of bigger units, 108 are registered with the Securities and Exchange Commission of Pakistan.

Historically, the Government has taken several steps to promote industry: At the time of partition, there were 17 registered surgical instruments manufacturers in Sialkot with US \$ 368 thousand worth of exports. During the 1960s, Government gave various fiscal and credit incentives (subsidies and bonus voucher scheme) for export growth and technological up-gradation. These gave a real boost to local surgical industry. However, subsidies and cash incentives, generally create perverse incentives, and are subject to manipulation/ corruption. Also, these cannot

be a substitute for an enabling environment within which the entrepreneurial skills upgrade in the long run.

The labour legislation of 1973, though was to protect and promote the labour rights. But in the surgical instruments' industry, it led to widespread displacement of labour. The increased labour costs, consequent upon the legislation created a trend of subcontracting of processes to specialized vendors. The vendorization lowered the manufacturing costs through decreasing factory overhead cost as well as pushing down labour cost. During this period, the demand for Pakistan's cheaper disposable surgical instruments increased in the USA market.

In 1994, the US Food and Drug Administration (FDA) imposed restrictions on the import of surgical instruments from Pakistan. This compelled the industry to improve its manufacturing management systems, and obtain certifications like ISO, GMP and CE. Later during the year, the government of Pakistan appointed a US firm 'Medical Quality Systems' to facilitate implementation of Good Manufacturing Practice (GMP).

The industry is benefiting by being a 'zero-rated' industry. Consequently, it gets back the duties and taxes paid on imported raw materials, at the time of exporting its finished products.

Economic Upgrading

The manufacturing involves high degree of precision and quality as per international standards. These instruments are mainly exported to the USA and the EU. The industry has maintained export market share and has improved quality and skills. Due to better price competitiveness, 95 percent of the production is exported. It is a 3rd generation industry running mostly as a family business. The industry is well known in global markets for wide range of products with customized production. It is a rapidly evolving market where upgradation is taking at a fast pace, as demand for high tech products from existing customers is increasing. As a result of long export history, the industry has established distribution channels and good linkages with international market. Over the years, the industry has attained comparative advantage, mainly attributable to the following:

Sialkot has a specialised work force: The easily available labour force holds expertise in producing these sophisticated customized items.

High demand in the international market: This provides a good opportunity to be tapped with proactive adaptation by Pakistan in the higher value added products.

High quality products: Sialkot Material Testing Laboratory (SIMTEL) established in 2001 under the initiative of FDA, USA. This is being managed by TDAP and SIMAP.⁶³ SIMTEL provides testing and consultancy services to improve manufacturing techniques and processes.

Diversification in exports has taken place: In the medical devices exports, the share of the industry increased by 94 percent (from 0.72% in 2003 to 1.4% in 2018). The share remained almost constant for its key HS 9018 but it acquired a share in other HS lines i.e. 3005, 8213, 9021 and 9022 – implying the industry has diversified though slowly.

Expansion in export markets: The top buyers are: the USA, Germany, the UK, France, Italy, UAE, Japan, Brazil, Mexico, and Russia. Pakistan's direct exports to China and India are also on the rise.

Issues in Economic Upgrading

Low value added segment: Pakistan's participation in the GVC of medical device industry relate to manufacturing of basic disposable instruments, the demand, prices, value addition and growth in this segment is relatively low as compared to devices using computer aided electronics, which get higher per unit prices. Also, the device and apparatus component of trade is growing relative to basic disposable instruments. Pakistan has grown slightly but the industry's capacity to produce more sophisticated equipments is fairly low.

Lack of branding: The local producers are suppliers to international brands based in the US and Western Europe, who outsource manufacturing to artisans in Sialkot. Consequent to the non-presence of brands in the international market, the buyers for Pakistani products are mostly the distributors and wholesale dealers, selling these products as their brands. Pakistani manufacturers lack resources to establish their distribution networks in the overseas markets.

63. SIMAP is a representative association of surgical manufacturers, founded in 1958 to protect and promote surgical instruments manufacturing, and to solve problems of industry.

Low capacity utilization: The industry cannot reap the benefits of economies of scale, cost efficiency and competitiveness with a capacity utilization hovering around 40-50 percent.

Social Upgrading

The Sialkot surgical instruments industry is a low cost producer. Relying heavily on labour intensive techniques, it produces a variety of standard instruments. Pakistani surgical manufactures provide their products to vendors in other exporting countries, which first source products from Sialkot, and then export them to the world market. The fact that Pakistani manufacturers do not have significant profit margins is a legitimate problem, which compels them to cut corners, since they need to provide products to mediators at much lower prices. Local manufacturers in turn outsource work to informal workshops, which receive only a fraction of the revenue. Though, the outsourcing international importers make large profits.

The production model of 'sub-contracting' hinders decent work: The manufacturing steps of die making, forging, filing, grinding, machining, electroplating and heat treatment are subcontracted to small workshops that perform only a specific process. The items are then passed on to others for final finishing using chemical cleaning and polishing. At the final stage, the producer conducts quality checks before supplying to the final buyer overseas.

Sub-contracting is a common practice. It minimizes overheads and lowers the costs of each stage. From labour perspective, it has negative repercussions, as subcontractors are not employees of the company. The fierce competition to perform small but specific job pushes down not only the wages but also health and safety standards.

There are multiple ways for payment, subcontracted workers are paid per instrument basis e.g. 200 pieces need grinding. At times, this is done on the basis of number of days involved in completing the order e.g. 'this is a week's job and we will pay this much of the amount'. So, there is no standard practice, it varies from task to task and unit to unit. The daily earnings are: an apprentice with minimum experience earns Rs 100-150; average worker possessing some experience earns Rs 500 a day; whereas experienced workers get Rs.800-1000. In whatever way, the earnings remain below minimum wages for majority of workers. Only exceptionally experienced workers get Rs 2000/day. The regular staff at bigger units, having formal education is well-paid.

This model of production provides no job security, no guarantee of a minimum wage, and no medical insurance. There is no chance for workers to demand wage increase because of the: a) inelastic supply of workers, who are eager to take up the task; and b) subcontractors being intermediary get the payment directly from bigger unit in advance who out-source them the job.

Incidence of child labour can be seen, which needs an independent survey to ascertain the number and magnitude. Under the laws, in Punjab, children younger than 18 years are banned from working in 'hazardous industries', while children under 14 cannot work at all. Our survey found that the children as young as 10-12 have been found making surgical instruments for a daily wage of around Rs100. In surgical manufacturing units of Sialkot and Lahore, children **below the age of 14 were found trimming, grinding and polishing metal objects such as scissors. Children work mostly in small shops in narrower areas of the city. Children have long working hours, other than manufacturing, they perform all other tasks that are unpaid** e.g. facilitating the owner/ contractor of the shop by bringing him tea, cigarette, and cleaning the premises.

The overseas buyers are not, and at times cannot be well informed about the working conditions. The reason being that the child labour remains hidden from the overseas buyers of surgical instruments because they work for sub-contractors of big manufacturing units. For buyers, price and quality of products – for the sake of their own profit margins - are the major considerations. Child labour, is more like an open secret. Families, factory/ shop owners, contractors and children consider it a necessity. Families fear hunger, and take child labour as a source of contribution towards family income, while children get training and obtain expertise in manufacturing. Contractors induct children, as they work on exceptionally low wages, they can be pressurized easily for overwork, deduction of wage/payment on account of small or no mistake; they have no say on wages, and above all are more obedient. Children start work at the age of 7 but they are engaged in small tasks and are paid very low. While they keep on learning, and start earning in the next couple of years. Their earning in most cases remain in the range of Rs.100-150. For performing similar task, their wages are considerably lower than the adult workers.

The ILO study of 400 working children in 2004 showed that children are paid much less than the adult workers, and that the working conditions were poor. Over 47 percent of the children were making Rs1,000/ month

or less. About 72 percent suffered from a work-related illness or injury at some point. About 40 percent of children felt intimidated or afraid of their employer.

In 2010, a report by the Rawalpindi Chamber of Commerce and Industry highlighted that the subcontractors use child labor. Of the 50,000 workers around 7700 (15.4 percent) were children, who mostly started working at the age of 9, and some as young as 7. According to the subcontracted nature of the manufacturing process, there was little regulation of such employment practices, the study found.

In 2020, the issue of child labour was highlighted by an investigative report published in *'The Guardian'*.⁶⁴ Accordingly, the UK's National Health Service (NHS) Supply Chain blamed the manufacturers used by its suppliers in Pakistan for exploitative labour practices and child labour. The exploited workers of Sialkot, including children produce the instruments exported to Western markets, including those branded by multinational corporations. The report acknowledged that the pay and working conditions have improved in some larger factories since the problem of child labour was highlighted in 2008. However, many of the problems still exist in the informal sector surgical instrument workshops.

Occupational Health and Safety is a much bigger challenge: The information in this section is indicative only, as exact magnitude and intensity of the problem is not easy to get to. For this purpose, a comprehensive health hazard documentation is needed. Nevertheless, the discussions with doctors,

SAHEP Initiative to eradicate child labour

Select Anwar Khwaja Health and Education Programme (SAHEP) is being run jointly by Anwar Khawaja Industries and its buyer in Denmark to support education and health.

SAHEP enroll children working in the surgical instruments industry in the tuition centre full time. SAHEP pays them equivalent to their earnings at the factory – Rs500 per month.

SAHEP considers that the child labour can be effectively eliminated factories pay their (adult) workers “enough” wages, not only to feed them but also to be able to send their children to school.

Source: SAHEP

64. Express Tribune, Friday, 14 Feb 2020, 'Child labour in the surgical sector', by Syed Mohammad Ali, Published: March 9, 2018

patients and experts indicate health hazards for workers, particularly to children working in the surgical manufacturing units. The negative impact has a significant association with exposure duration and the age of the workers. Hence, the children engaged in polishing, cutting, and welding have the highest incidence of heavy metals in the bio-matrices. The unhygienic, dusty and unhealthy indoor working environment adds to hazards. A recent study conducted children's occupational exposure assessment via simultaneous biomonitoring of eight heavy metals in six biomatrices. It revealed high levels of heavy metals in the urine, blood, serum, saliva and hair samples.⁶⁵ The hair samples expressed the highest bioaccumulation for heavy metals among all the bio-matrices. Likewise, higher oxidative stress was found in the children working in the surgical industries. Inhalation of industrial dust was the primary cause of exposure followed by the ingestion and dermal contact. Consequently, chemical daily intake (CDI), carcinogenic and non-carcinogenic hazard quotients (HQs) of heavy metals were also reported higher in the exposed children. The values obtained were much higher than the US EPA thresholds. In short, workers especially children face severe health hazards that need immediate protective measures.⁶⁶

The small workshops are generally inadequately lit. The employees work without protection e.g. masks, safety glasses and earphones. The unsafe working conditions result in workers, including children to have asthma and other respiratory tract diseases due to metal dust inhalation.

3.3. Leather Products and Footwear⁶⁷

In 1950's, tanneries were established in Karachi, Lahore and adjoining areas. In the 60s and 70s more units were established at Hyderabad (Sindh), and in Punjab at: Kasur, Sialkot, Multan, Sahiwal and Gujranwala. The industry started with the production of vegetable tanned hides and skins, and later upgraded to the production of wet blue, crust and fully finished leather and a wide variety of products.

65. In the urine samples, Cd, Cr, Ni, and Pb were measured at the respective concentrations of 39.17, 62.02, 11.94 and 10.53 µg/L in the surgical industries.

66. Health hazards of child labor in the leather products and surgical instrument manufacturing industries of Sialkot, Pakistan, Muhammad Junaid and Riffat Naseem Malik and De-Sheng Pei, *Environmental pollution*, 2017, volume 226, pages 198-211. Available at: <https://www.semanticscholar.org/paper/Health-hazards-of-child-labor-in-the-leather-and-of-Junaid-Malik/4b6635a3c83b6ad1a81eecba83d9457f1f829c10>

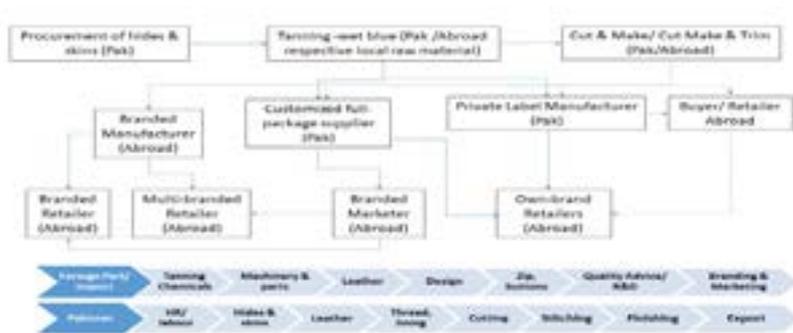
67. This section is based on discussions with units, Pakistan Tanners Association, Pakistan Leather Garments Manufacturers & Exporter Association (PLGMEA) and Pakistan Footwear Manufacturers Association

In Pakistan, the number of tanneries is estimated to be 1300, producing leather of cow, buffalo, sheep and goat skins. Pakistan's share in the global skin and hides production is around 9%. The leather industry is employing about a million people directly or indirectly in the production of daily wear, footwear, saddlery and furniture. Leather garments and footwear production is labour intensive. Leather and leather products industry is the second largest export earner after textiles. The industry has a comparative advantage, as Pakistan is one of the major producers of hides. In 2018-19, the country produced over 45 million animal hides and skins.⁶⁸ Leather clusters are located in Sialkot, Karachi, Hyderabad, Multan, Kasur, Faisalabad, Gujranwala, Sahiwal, Sheikhpura Peshawar and Lahore. Karachi has one of the largest leather units in Korangi industrial area. About 85 percent of the leather produced in Pakistan is exported in the form of leather goods (42%) and as finished leather (43%).

Pakistan's value added leather industry consists of six sub-sectors: tanning, finished leather, footwear and shoe upper, garments and apparel, gloves, and leather goods such as key rings, belts, hand bags and wallets, harnessing and saddlery. In the GVC, the Pakistani manufacturers work in a number of ways. For instance: a) the producers in Pakistan get the orders from overseas brands along with all the required materials, design and specifications. The materials are processed by Pakistani workers and finished goods are produced with the foreign brand name. This way, without expenses on materials, the Pakistani producer generates certain income by applying labour and utilities. The majority of the manufacturers export to their international clients directly without an agent involved. b) The private label manufacturers, procure raw materials and produce their own designs. The overseas customers select from the range of products, and place order with their brand name. c) Another type of working relationship occurs, when Pakistani producers are full-package suppliers. In so doing, they procure the required raw materials and inputs (both local and imported), and produce as per order with the foreign brand name. d) Though negligible but Pakistani manufacturers also produce with their own brand and doing on-line marketing. In the global value chain the designing, branding and marketing relate to the overseas operations (Figure 1).

68. Pakistan Economic Survey, 2019.

Figure 4: Pakistan in the Global Value Chain of Leather Products



Majority of the businesses are family owned, who started as sole proprietorship. Therefore, the business owners have an experience of several years. The family members take care of different tasks related to the business. The businesses in leather garments and footwear prepare financial statements, more than half get these audited too. Others smaller business owners/managers keep track of accounts themselves. The business owners did not disclose their financial accounts, assets, capital invested and profit.

The profit margin increases with the stages of processing and value addition. Therefore, the products like apparels, gloves and accessories get the highest return on investment. Global retailing and branding are the most profitable segments of the GVC. An overview of the major sub-sectors is covered here.

Tanning Sector

In Pakistan, animals are mostly kept by small scale herders; hides and skins are a by-product of meat production. Hides are gathered from 33 registered slaughterhouses, and butchers scattered all over the country. The hides and skins transported to tanneries are processed using different chemicals and heavy machinery for pressing and flattening. Over the years, the number of tanneries has increased from 530 in the year 2000 to 600 in 2003 and to 800 in 2018/19. The production capacity is 90 million square meter of leather. During the year, the industry utilized about 67% of its capacity. This labour intensive industry employs more than half a million workers. The labour acquires skills of processing and operating machinery through learning by doing as apprentice (about 75%). The remaining workers who perform the tasks of loading/ unloading, and packaging are considered unskilled.

Leather Apparel and Garments

There are about 500 leather garments and apparels making units. Pakistan is the fourth largest exporter of leather garments to the world, and contributed 8% of the total leather garments export to the world. The big market players have vertically integrated production process from tanning unit to finished products. This is to get reliable supply of raw material of required quality. The leather made ups industries contribute more than half of export of leather and leather items. The industry provides employment to 0.2 million people. The education level is better here as compared to tanneries. The sector employs graduates in business administration, accountants, engineers and diploma-holders. The structure of wages is according to the education and skill level for management, administrative and quality control jobs. The tasks of cutting, stitching and finishing, which are repetitive process jobs are mostly piece rate basis. The manufacturers are inclined to retain workers so as to maintain quality of products.

Leather Footwear

Due to rising manufacturing costs in the developed countries, the footwear manufacturing base shifted to low cost Asia. Pakistan also benefitted, as good quality leather is available. Leather footwear sector is capable of producing 200 million pairs annually, and is producing with half of its capacity. The employed persons are in the range of 0.5 to 0.8 million. The industry locally procures the raw material and exports the high quality products. The manufacturing units are divided into those who are a supplier to the local market and those who are a part of the GVC i.e. exporter. The exporters are in the organized sector, who maintain accounts and are using mechanized techniques. The units differ in terms of production capacity ranging from 2,500 to 10,000 pairs/ day.

Saddlery and Harness Goods

Pakistan also produces and exports saddlery and harness goods.⁶⁹ Karachi and Sialkot are the major production centers for saddlery goods, accounting for about 95% of the total exports of saddlery items. Karachi has specialization in tanning and finishing of buffalo hides and producing harness leather, which is major input for saddlery industry. The major importers are Germany, USA, UK, France, Scandinavia, Netherlands, Japan, Australia and New Zealand.

69. The saddlery industry was established in the 19th century to cater to the needs of the military and police.

Leather Gloves

In the leather gloves value chain, Pakistan shares the high value added segment of sports and non-sports gloves. There are some 200 units, mostly SMEs involved in the manufacturing. These units and tanneries are located closely in Sialkot, which helps ensuring consistent supply of high grade raw materials. The manufacturing process in Pakistan starts with the order from foreign buyer along with the specifications e.g. quality, color, design, accessories, stitching style, etc. Due to the buyer driven nature of the industry, the manufacturers in Pakistan have a weaker bargaining power against major brands and overseas retailers.

Government Policies and Incentives

Government announced a number of steps for leather apparel industry in its 3-year Strategic Trade Policy Framework (2009-12). These include facilities from Export Investment Support (EIS) Fund for procurement of expert advisory services, matching grant to establish design studios/centres and establishment of research and development centers in Karachi and Sialkot. In addition, this sector would be able to avail EIS Fund facilities that include sharing 25 per cent financial cost of setting up laboratories and matching grant for setting up of effluent treatment plants.

Trade Policy (STPF 2009-2012)

The Strategic Trade Policy Framework 2009-2012 endeavored a roadmap in consultation with the major industry players and Ministry of Industries. The Policy recommended:

- Providing on the floor expert advisory / consultancy services to leather apparel manufacturers and exporters.
- Matching grant to establish design studios/ design centers in factories.
- Establishing R&D Centers in Karachi and Sialkot by Pakistan Leather Garments Manufacturers and Exporters Association
- Installation of flaying machines at district level slaughter houses.
- Sharing 25% financial cost of setting up of design centers and labs in the individual tanneries.
- To provide matching grant for setting up of effluent treatment plants in individual tanneries.

The strategic trade policy framework could not be implemented, nor were funds released for this purpose. The Federal Budget 2009-10 earmarked Rs40 billion for various initiatives under the STPF but no amount was released. For various initiatives, TDAP issued Public Notices to invite interested industry players for participation in schemes. Consequently, a number of units belonging to various market segments incurred expenses to meet participation conditions and applied to gain from the schemes. But required funds were not released.⁷⁰ Such developments lowered the confidence of the industry, and reduced predictability and certainty.

Economic Upgrading and the issues

The industry possesses management skills learnt through long experience. Consequently, it improved skills, upgraded technology for better technology, and introduced new products and designs. There is a big international market for leather products, and despite having comparative advantage in raw material and labour, Pakistan could not gain sizable exports' share or established itself as a global brand. The issues in the economic upgrading are identified here.

Machinery: Insignificant manufacturing base, only 10% of the machinery ('*chukrum*') for small tanneries is locally produced. The rest is imported from Italy and France.

Dyes and chemicals: Tanners buy chemicals from multinationals or import them. The local chemicals are considered having low quality may not conforming to international regulations.

Raw material: Local sources fulfill 75% needs of raw hides of the industry, the rest is imported from Saudi Arabia, Iran, China, Dubai, Sudan, Kenya, Australia and Italy. The raw hides and skins are of relatively lower grades due to inadequate training and slaughtering skills. Also, the insufficient application of preservation techniques and systematic collection/ storage reduces the quantity of raw material.⁷¹ Organized farming, modern slaughter

70. The industry, then kept on pursuing and holding meetings with the Ministry of Commerce but according to industry sources, the funds were diverted to other schemes like Benazir Income Support Programme, for Internally Displaced Persons (IDPs) and fiscal relief packages given to Khyber Pakhtunkhwa and FATA.

71. Pakistan faces an estimated loss of four billion rupees due to inadequate preservation for animal hides only at Eid-ul-Azha. Around 20-25 per cent of the skins are affected by pre-slaughtering damages e.g. diseases and injuries.

houses, training and awareness of the usage of hides and skins may improve the grade.

R&D: Despite numerous institutes, the R&D rate is slow. The University of Veterinary and Animal Sciences, Lahore and PTA conducted research to identify animals' skin diseases. Big players conduct research at their own level, and have come up with a new dyeing technology (steel dyeing drums) to improve dyeing quality. Nevertheless, R&D in modernization and technology upgradation is needed.

Pricing: There is no industry standard or grading system to distinguish various types of leathers, the grades vary from producer to producer. Hence, optimal prices could not be negotiated, and many manufacturers end up selling at lower prices.

Credit: Borrowing cost is high, which deters investment in the industry. The L/C opening margin is also high.

Training: Various institutes provide academic degrees in leather specific subjects.⁷² They charge a fee and have an admission criteria. Hence, the workers with little education, who are already in the industry lack training opportunities.

Changing policy: Several production units were established with substantial investment some 10 years ago. They were incentivized by export rebates up to 23%, which have now been reduced to a 0.8 to 1% for finished goods, 0.22% for apparels, 1.76% for gloves, and 2% for footwear. Changing policies deter SMEs to invest and enter the market.

Branding: Pakistani Leather and Leather products are sold under the foreign brand names. Value added fashion and design products are more value added.

Utilities and Infrastructure: Being a water-based industry, tanneries have to purchase water and they have also arranged for company-owned generators to ensure uninterrupted power supply. This adds to the cost. The drainage system is in a very poor condition.

Low Networking: Lack of market information and international networking keeps opportunities low. For instance, only three Pakistani manufacturers are

72. Some of them are: National Institute of Leather Technology, Karachi. Leather products development Institute, Sialkot. Institute of Leather Technology, Gujranwala. Footwear Training Institute, Charsadda.

members of the International Leather Working Group, while India and China have 88 and 76 respectively.

Losing markets due to higher cost: Pakistan had been the biggest exporter to Italy, China, the USA, England and Germany. Despite its significant capacity for extraction and processing of leather, Pakistan has now lost its major import partners. Presently, China imports from Australia, and the United States relies on India. Pakistan exports a small volume of leather products to the United Kingdom and Germany. The raw material supply is affected by smuggling of live animals to Afghanistan. The production cost increases by importing raw material to meet production order. The manufacturers are unable to offer better and competitive prices in the wake of high fuel prices, interrupted supply of electricity and gas. Tanning units are facing complete closures due to low availability of gas and prolonged power breakdowns in Punjab, as use of furnace oil for boiler heating is unviable. The skin, being perishable, cannot be stored without being processed, which requires uninterrupted electricity and gas supply to maintain leather quality. Suspension of water supply in the Tannery Zone of Korangi Industrial Area, where leather exporting units are situated.

Occupational safety and health: Using multiple biological matrices of the exposed workers and indoor dust samples, the impact of heavy metals on the oxidative enzyme and their risks to workers' health were explored.⁷³ The results indicated that the level of Cr in indoor industrial dust was more than twice, compared to the background household dust. Blood, urine and hair samples of exposed workers showed significantly high concentrations of heavy metals. Superoxide dismutase (SOD) level in the blood samples showed positive correlation with Cr and Ni. Total hazard quotients (HQs)/hazard index (HI) were >1, and Cr (VI) exhibited higher cancer risks than that of Cd in the exposed workers. In addition, the PCA-MLR analysis confirmed that: cutting, shivering/crusting and stitching were the principal contributors of heavy metals in the biological entities of workers. Taken together, the results highlighted the occupationally exposed groups would likely to experience the potential health risks due to excessive exposure to the heavy metals from the leather industries. A study of bio matrices highlighted serious health

73. Junaid, Muhammad, Hashmi, Muhammad Zaffar, Tang, Yu-Mei, Malik, Riffat Naseem, Pei, De-Sheng, 2017, Potential health risk of heavy metals in the leather manufacturing industries in Sialkot, Pakistan, SP - 8848, VL - 7, IS - 1, UR - <https://doi.org/10.1038/s41598-017-09075-7>

concerns for child labor in leather industry of Sialkot.⁷⁴ Particularly, the children face risks in the surface coating, crusting and stitching sections.⁷⁵

The manufacturers are required to provide protective equipment for their workers, such as rubber gloves and rubber boots for wet-blue workers. Factory do not provide any protective equipment to their employees. Workers who work with chemicals do not wear face masks or protective gloves. Unaware about the health risks of chemicals, the workers do not wear face masks and gloves as they feel uncomfortable. This points to a lack of knowledge about the. Moreover, the workers lack safety training about protective equipment. Though they have some instructions on fire safety rules. Workers are provided with protective equipment only when inspectors are scheduled to visit. Workers then wear gloves, boots, facemasks, goggles or helmets for a short time. Korangi's workers are known to do more hazardous work with slightly higher pay.

The exposure rate of tannery workers to carcinogenic compounds including chromium salt, arsenic, benzene, formaldehyde, ethanol, toluene and acetene solvents is increased. Chromium chemicals are major compounds used in tanning process in the form of Baychrome and $\text{Cr}(\text{OH})\text{SO}_4$. In tanneries, Cr present in sulphate, inorganic and in protein bound form called leather dust. Exposure to these compounds resulting in a variety of cancers. According to doctors and experts, the tannery workers suffer from skin cancer and sarcoma cancer of soft tissue caused by various chemicals used in tanning. Thus the workers face sever occupational health and safety risks. Government is urged to enforce existing legislation on the use of the chemical obliging employers to provide protective equipment to their workers, such as the 2003 Hazardous Substances Rules.

Illiterate workers are unaware of the chemicals they are using, though they suffer from the usage. Only 20% of the workers get some medical facilities by their employer. Others are not entitled to sick leave; their pay is deducted. The leather industry makes extensive use of chemicals to transform animal hides into leather. Several of these – including chromium used to tan hides, as well as paints used to colour them – can be damaging to human health.

74. 'Health hazards of child labor in the leather products and surgical instrument manufacturing industries of Sialkot, Pakistan.', Muhammad Junaid, Muhammad Zaffar Hashmi, Yu-Mei Tang, Riffat Naseem Malik & De-Sheng Pei, <https://www.nature.com/articles/s41598-017-09075-7.pdf>

75. <https://www.semanticscholar.org/paper/Health-hazards-of-child-labor-in-the-leather-and-of-Junaid-Malik/4b6635a3c83b6ad1a81eecba83d9457f1f829c10>

Often, workers come into direct contact with such chemicals, for example, in the above-mentioned wet-blue process, when the hides are taken out of their chromium bath. Workers are also exposed to these chemicals in gaseous form, when they dissolve within the tannery. To use just one example, exposure to chromium increases the risk of skin infections.

Child labour: “we have the minimum age requirement of 18 years, below this we do not employ”. But child labour is there, it is there in the guise of training. Children work as apprentice ‘*shagird*’. The children employed at the lower end of the value chain or at the starting point get meager amount in return. In 2004, ILO estimated more than five thousand children working in the tanneries.⁷⁶ In 2017 and 2018 also, the ILO mentions about child labour in the industry. Poverty and indebtedness pushes children to work in tanneries.⁷⁷ In anticipation to learn a craft for earning, some children start working at the age of 5-7 years in leather production process. Annually, the U.S. Department of Labor publishes a list of its imported goods, which are produced with the help of child labour and/or forced labour. The list for 2018 covers leather production, where child labour is prevailing.

Working hours: Long working hours, 8-10 hours – the bigger units pay overtime. The average duration of work per day for the children in tanneries is about 10 hours. They face pressure of hard work, which is detrimental to their physical and mental health.

Low wages: The wages, the workers get is not enough for their living. Most of the workers are employed on a daily basis wage, while others receive piece rate. Some tannery workers are also sort of ‘bonded’ by the loans and credit taken from the owner, to meet day to day expenses. The loan and the repayment cycle goes on monthly basis. Below minimum wage payments to adult workers perpetuate poverty, and also families have to send their children to work in the same premises.

76. ILO 2017 and 2018 ILO-UNICEF. Statistical Information and Monitoring Program on Child Labor. In 2004, ILO estimated 5,133 male children working in the tanneries. Roughly 87 percent working children worked full time, while 11.8 percent worked full time and studied on part time basis and 1.9 percent worked as part time basis and studied full time.

77. See: the ILO (ILO-IPEC TBP Project); and ‘Where the shoe pinches Child Labour in the production of leather brand name shoes’, Frederike Rijkse, Bart Slob, Sanne van der Wal, Albert ten Kate, (original in Dutch, this translation November 2012), Centre for Research on Multinational Corporations , The Netherlands

Union and collective bargaining: Union is not allowed by the management, nor any weightage is given to the demands of workers, they face disconnection of service and deduction in salary.

Employment through contractor: Tannery owners have very basic education, 5% with high school while 3% with just primary education, with majority (53%) having workforce of 10-24 employees. 80% of the businesses are established.

Workers often work for four consecutive hours without taking any breaks to use the toilet or to drink water, even though the temperature inside the factory is very high, leading to severe dehydration. Workers are usually hired through labour contractors, who have linkage with the factory management. The research done in August 2016 revealed that only 5 per cent of the interviewed leather workers had any type of written contract proving their employment. Often, the only documentation tying workers to their de facto employer is a so-called duty card, which they use to enter the factory every day. Yet, these duty cards were said rarely to contain any information identifying the factory employing the worker. The absence of a labour contract increases the precariousness of their work, as the factories they work in can hire and fire them through their labour contractors.

Environmental issues: The environmental case study is being covered in the next chapter. In any case, the combined effluent treatment plants have to be built so that hazardous chemicals discharged from the tanneries may not harm environment. The GSP+ arrangement has added to the Pakistan's leather industry's competitiveness but it does not seem to have contributed towards sustainable development.⁷⁸ Pollution caused by tanneries is a serious environmental issue, needs restricting the tanners to operate within populated areas.

Sensitizing the GVCs: Brand companies, retailers and manufacturers, who source leather and leather products from Pakistan earn hefty profits. They need to be sensitized to leave enough margin that could ensure decent work in the lower segments of the value chain.

78. Hell-bent for leather: Labour conditions in the leather industry in Pakistan, Vincent Kiezebrink (SOMO) & NOW Communities, Amsterdam, December 2016.

Chapter Four

Linking Industrial Policy with Economic, Social and Environmental Upgrading

There are a number of pre-requisites to integrate industrial policy with economic, social and environmental upgrading. The selected areas of action are elaborated here.

Energy Efficiency Schemes

To start with, the vision cannot be realized without massive reforms in the energy sector. Even a modest economic upgrading of industrial sector cannot sustain with the present high tariffs of energy. Therefore, Pakistan needs to concentrate not only on the expansion of energy sources but also on the greening of energy mix. 'Energy Efficiency Schemes' can mitigate the impact of rising energy costs by reducing barriers to energy conservation, such as lack of information, and access to credit and investment overheads needed to re-engineer energy-saving production processes. These schemes can be linked to the technology improvement as mentioned in the Textiles Policy. The schemes can also assist in adopting environment friendly technologies, which will help build the sector's good image abroad.

Reforms in the Financial System

A well-functioning financial system that efficiently channels credit, at affordable rates, is essential for industrial development. The State Bank of Pakistan, Securities and Exchange Commission of Pakistan and the Federal Board of Revenue have to facilitate industrialization. Each of these institution has to remove the distortions in the financial system such as inordinate delays in the reimbursement of duty drawback claims, making a system of payments that harmonises the requirements of Financial Action Task Force and those of the businesses, and strengthening the prudential regulation to make non-banking finance institutions an effective part of financial services for the industry. The policies of the banks and other institutions can incentivise protection of rights of workers. The standard operating procedures can work reduce discrimination against women or eliminating child labour, by giving

priority or lenient loaning terms for such production units who demonstrate decent work environment.

Research and Development

New knowledge and digitization of industries is converting the countries into digital economies. The industries and the governments have to modify to adapt technological changes so as to survive in a highly competitive world. The role of the government has to be that of a facilitator for the technology capabilities to be accumulated and practiced in the industries. This can be made possible by strengthening the research capabilities of universities and the R&D institutions, and by their effective networking with the industry. The ability to compete in the globalization depends on the commitment towards human resource development and creating an innovation culture. Innovation will contribute to improving national productivity, product diversification and competitiveness. Dynamic innovation systems involve an inter-play between various segments of the society: the government, private sector, universities and research institutions. The transition of Pakistan's industry from SMEs serving mainly at the lower end of the GVCs to a knowledge-based economy would involve active participation of various institutions. For instance, the universities will need to play the central role for knowledge creation; the government to ensure its diffusion and usage by the industry through technology parks, business incubators and access to credit.

Skill Development

A significant shift in the type of education to be imparted, focusing not only on the present mastery of subjects but also to cover improvement of mental and emotional capabilities such as organizational skills, critical thinking, communication skills, teamwork and entrepreneurship. It is essential to focus on technical education and skill requirements of the industry. For the three industries covered in the Report, a low number of persons are being trained, that too is declining.

Institutional Coordination

Networking amongst the key ministries, industries and research institutions has to be developed. Initially, this can be in the form of university-cluster collaboration. The policies or the instruments of industrial policies at the Federal and provincial levels need to encourage economic upgrading - technology, productivity and market access – leading industry players at each

stage of the value chain to enlarge their scale and improve the position in the global value chains. This may involve them to combine their energies instead of the present cut-throat competition for the same products.

Social Upgrading

The perils of reckless and escalating inequality cannot be ignored for economic growth, political stability and social justice. To a large extent, this inequality stems and perpetuates from a national neglect of the state of labour in the industry and elsewhere. It has to be recognized that any of the policies relating to the industry, human capital formation, research and innovation, etc. should result into greater employment opportunities and increase in the wages. Decent work agenda can be linked to a number of incentives, for instance government may provide support for waste water treatment for a year to those factories where labour issues are handled well in the shape of living wages, social security, education to workers' children, etc.

Pakistan has ratified the eight fundamental Labour Conventions of the ILO, now their effective implementation needs to be ensured. Indeed, as a beneficiary of the EU's GSP+ Scheme, Pakistan has committed to implement core human rights and labour rights, including the right for workers to form unions and engage in collective bargaining. Some other areas where action is required include: ILO Convention 155 regarding the right to a safe and healthy work environment, Convention 121 on employment injury benefits, Convention 131 on fixing a minimum wage covering the cost of living, and Convention 95 on the protection of wages. Other required actions include: continuity of tripartite conference and focusing female labour for trainings and wage equality.

Addressing Data Gaps

Here, addressing data gaps is inevitable. For variables relating to economic and social upgrading, the major source of information is the 'Census of Manufacturing Industries' (CMI). The Census is conducted under the Industrial Statistics Act, 1942. It covers manufacturing establishments, other than defence and government, registered under Factories Act, 1934. Thus far, two CMIs have been conducted, once in 2000-2001 and the second one in 2005-06. The Census has to be conducted after a period of five years. The CMI data is not available after 2005. CMI was conducted in 2014-15, but the results have not yet been released even after more than six years. The CMI provides key information on fixed assets, stocks, employment,

wages, cost, value of production and value added. The census operations are performed by Pakistan Bureau of Statistics (PBS) – that conducts planning, preparation of questionnaire, tabulation plan, editing & preparation of CMI results at national level. The PBS is facilitated by the Provincial Directorates of Industries, who print and mail the questionnaires to the factories. The questionnaires from the factories are collected and supplied to the respective Provincial Bureau for data processing. Provincial Directorate of Labour Welfare also coordinates for data collection relating to labour attributes. Therefore, it appears that the latest objective data to serve as a planning tool for industrial policy is not there. A big gap indicates the need to reform administrative mechanisms in a major way.

Formal Coordination Mechanism

A formal coordination mechanism has to be established linking businesses and government. The industrial establishments' survey conducted for this study indicated that export targets are set without consultation of industry representatives. In order to give high claims the government announces a particular target. The industry could not meet these targets and keeps on raising its concerns through media. The reason being the non-availability of a formal and effective coordination mechanism between governmental agencies. There does not appear to be a 'review meeting' kind of forum to address the concerns, where all relevant ministries are represented by their top decision making management.

Role of Ministry of Industries

It seems appropriate here to look into the present role of the Ministry of Industries and Production, which has a separate Textiles Division as well. The 'Rules of Business' (ROB) define the role of bureaucracy and provide for clear demarcation of roles.⁷⁹ According to the ROB, the tasks assigned to the MOIP include, among others:

National industrial planning and coordination, Industrial policy; Federal agencies and institutions for:- i. promoting industrial productivity; ii. promoting of special studies in the industrial fields; and iii. testing industrial products. Administration on law on Boilers.

79. ROB 1973 (as amended up to 23rd April, 2019). Available at: <http://www.cabinet.gov.pk/policiesDetails.aspx>

The Ministry has five wings, dealing with: Industrial Infrastructure Development, Investment Facilitation, Large Enterprises Development, Medium Enterprises Development, Professional Skills Development

The MOIP has so far prepared: SME Policy, 2007, Auto Development Programme (AIDP 2008) and Policy, 2016, Fertilizer Policy, 2016. From the above mentioned functions and interviews with the functionaries, it appears that the administrative tasks have taken over the most crucial function of the Ministry i.e. industrial policy making and its implementation High value added industrialization is possible only through an overarching industrial policy.

Chapter Five

Conclusions and Recommendations

Pakistan is facing structural issues, which have adversely affected the economic growth. The savings, investment, production and exports all have gone down leading to macro-economic imbalances and deficits. The contribution of manufacturing value added in the GDP is low, and in fact the same as it was sixty years ago. Initially, Pakistan's industrialization strategy was that of import-substitution. As a corollary, the relatively higher tariffs on consumer goods promoted these industries. The capital goods and intermediate goods industries were not established, its consequences were to be seen in the later periods. Afterwards, the nationalization eroded the confidence of the industry. In the era of trade liberalization and openness, this industry could not compete. The case studies at the industry and factory levels show that the individual industrial units participating as exporters in the GVCs have considerably achieved economic and social upgrading. However, in the units at the lower-end, the situation of workers need immediate attention for promotion of decent work. The environment mapping reveals that the steps to protect environment would be required alongside industrialization efforts. The current contribution of industry in environmental degrading may be low due to de-industrialization. Nevertheless, the case studies show the urgent need to address various forms of pollutants at the plant level.

The analysis presented in this Report indicates absence of a coherent industrial policy in the country. Over the years, this has resulted into the present de-industrialization. The industries that sustained are those which flourished in the region since centuries, even without an explicit industrial policy. An appropriate industrial policy could have supported the manufacturing of textiles, surgical instruments and leather goods industries to be international brands than being a part of the lower ended GVCs at the present. The limited fiscal space, might not have let the country increase investment in value-addition in a large number of industries. Still, it should have been possible to identify and internalize value added sub-processes for economic upgrading. For instance, by improving the quality of the workers and that of the products they make, the value of products could have been enhanced. Instead of cutting corners to gain cost competitiveness through low wages of lower-end workers, promotion of decent work might have contributed towards

productivity gains, and so on. To achieve similar such targets for step by step improvement, the development of an appropriate industrial vision is still relevant and inevitable. Keeping in view the ground realities and constraints, such as large annual additions in the labour force, and the low absorption capacity of the existing industrial set up, the vision has to guide about the selection of industries and the technologies to be used for economic, social and environmental upgrading. This will not come around automatically in the present state of affairs. Conscious and high level commitment is necessary for these three objectives to converge at some point. The whole of the society has to participate in such a transformation drive being partners in growth and prosperity, as contributors and beneficiaries – government, entrepreneurs, workers, research institutes, universities, etc. - none of the stakeholders should be left behind, it would not work otherwise.

This requires, among others, the following:

- Preparation of a suitable industrial policy in consultation with all stakeholders;
- Development of a mechanism to review implementation of industrial policy with the involvement of high level management and bureaucracy;
- Enhancing impact of industrial policy through quick disposal of industries' concerns;
- The overall macroeconomic management e.g. a competitive exchange rate and access to affordable credit to private sector including SMEs and micro-SMEs;
- Removing structural bottlenecks and improving supply chain logistics to make them cheap and quick;
- Improving technological base through innovation and R&D, and to defuse it particularly to areas, where the raw material for most crucial industries is produced;
- Targeting human resource development through appropriate education and skill development policies; and
- Integrating markets through trade policy tools to achieve economies of scale and enhance competitiveness.

Using industrial policy for transforming economy, and leading to economic, social and environmental upgrading would require:

- Integration of industrial policy in a national development vision is a crucial step. Social dialogue and debates should help to find a

development vision. Trade unions and workers' representatives should play an important role.

- A rational process to define and carry out industrial policy. Alignment with other policies using direct and close information channels. Confidence of investors and workers on govt. should be there – this may be a forum to solve issues. Dialogue and debates among each stakeholders and their participation in the policy making be ensured.
- Decent work, social inclusiveness and environmental protection should be placed in the industrialization agenda. The private sector and industry specialists should be engaged closely, and from the early stage of the making of industrial policies. Social stakeholders should be engaged into debates on industrial policies to ensure that the social aspects are identified and addressed properly.

Annexures

Table 1: Indicators of Economic and Social Upgrading

	Establishments		Employees		Wages		Output		Value Added	
	Number	2001	2006	2001	2006	Rs	2001	2006	Rs	2001
Textiles	2001	2006	2001	2006	2001	2006	2001	2006	2001	2006
Spinning, weaving and finishing of textiles	626	1081	238017	393942	14393.438	44786.468	239362.875	677632.352	69318.892	200233.94
Textile fibre preparation;										
1711 textile weaving	322	770	217978	348832	12686.268	38921.586	208975.087	598395.817	62539.53	184969.866
1712 Finishing of textiles	304	311	20039	45110	1707.17	5864.882	30387.788	79236.535	6779.362	15264.074
172 Other textiles	153	140	42398	22939	2596.557	2198.399	45123.559	55981.484	13187.336	14865.43
Made-up textile articles,										
1721 except apparel	51	73	4707	17582	373.378	1620.943	5845.148	45349.445	1357.399	10772.205
1722 Carpets and rugs	21	20	2687	1377	382.1	129.042	1764.806	3494.444	797.913	2209.204
Cordage, rope, twine and										
1723 netting	20	17	1225	2066	109.651	174.492	1047.664	1295.729	319.253	630.203
1729 Other textiles n.e.c.	19	30	1027	1914	54.834	273.922	1463.609	5841.866	326.632	1253.818
Knitted and crocheted										
1730 fabrics and articles	173	108	25556	21776	2281.538	2222.627	26324.395	33366.606	7709.285	8582.421
Wearing apparel, except										
1810 fur apparel	209	324	51078	62324	3943.7	7142.629	38252.463	102536.821	10777.479	31918.276
Dressing & dyeing of fur;										
1820 processing of fur	...	2	...	64	...	3.742	...	58.441	...	13.36
Leather										

Tanning, dressing and											
191	processing of leather	82	106	8565	7548	880992	840657000	18655403	17556443000	5362235	3476668000
Tanning and dressing of											
1911	leather	73	87	7988	5859	807496	693985000	17791630	14658734000	5087257	2775362000
Luggage, handbags, etc.;											
1912	saddlery & harness	9	19	577	1689	73496	146672000	863773	2897709000	274978	701306000
Footwear											
1920	Footwear	13	36	7009	9485	734011	135011000	5765297	9185543000	2335228	4148122000
Medical equipment											
Medical, measuring,											
331	testing appliances, etc.	58	91	3729	9089	454036	947583000	4111326	11184364000	1599553	4256143000
Medical, surgical and											
3311	orthopaedic equipment	54	81	...	6142	...	616680000	...	7296054000	...	2741126000
Measuring/testing/											
3312	navigating appliances	4	10	...	2947	...	330903000	...	3888310000	...	1515017000
Sports goods											
3693	Sports goods	38	51	11205	4543	600312	610044000	6546736	8587921000	3258477	3072195000
Total manufacturing											
		4528	6221	689692	931262	65521650	1.3105E+11	1145063456	2.87083E+12	365988915	9.12147E+11

Source: CMI

ANNEX- Indicators of Economic Upgrading

VALUE IN " 000 " RUPEES

DESCRIPTION	UNIT	2004-2005		2009-2010		2014-2015		2017-2018		2018-2019(July to March)	
		QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE	QUANTITY	VALUE
Textiles and clothing											
171 - Spinning, weaving and finishing of textiles	--	--	410,243,796	--	660,062,292	--	1,009,752,721	--	1,063,901,186	--	942,919,849
1711 - Textile fibre preparation; textile weaving	--	--	67,117,171	--	120,492,009	--	187,753,947	--	151,484,644	--	110,673,237
1712 - Finishing of textiles	--	--	343,126,625	--	539,570,283	--	821,998,774	--	912,416,542	--	832,246,612
172 - Other textiles	--	--	59,106,445	--	84,637,503	--	125,509,661	--	122,936,260	--	98,743,283
1721 - Made-up textile articles, except apparel	--	--	27,637,181	--	45061752	--	66359031	--	75243335	--	68802438
1722 - Carpets and rugs	SQM	4,986,624	16,499,133	2585807	11473363	2493375	12098388	1708690	8317075	1183214	6718908
1723 - Cordage, rope, twine & netting	KG	2,590,535	235,476	779176	169795	23785615	9773656	31950102	13048571	10342023	4909543
1729 - Other textiles n.e.c.	--	--	14,734,655	--	27,932,593	--	37,278,586	--	26,327,279	--	18,312,394

1730 - Knitted and crocheted fabrics and articles	SQM	153,755,812	11,052,283	51175951	6015574	9438229	3672382	10468942	2495131	8065294	3112773
1810 - Wearing apparel, except fur apparel	DOZ	34,194,179	64,613,142	27661062	106444794	30899256	212210387	40026724	283497638	38741877	259672488
Leather and Leather Products											
191 - Tanning, dressing and processing of leather	--	--	55,836,790	--	73,230,332	--	123,097,655	--	105,224,118	--	83,450,383
1911 - Tanning & dressing of leather	SQM	18,435,438	18,013,041	24299268	28698343	22273455	49582798	26179067	36329904	16086551	24846273
1912 - Luggage, handbags, etc.; saddlery & harness	--	--	37,823,749	--	44,531,989	--	73,514,857	--	68,894,214	--	58,604,110
3311 - Medical, surgical and orthopaedic equipment	NO	144,046,728	10,859,612	133699131	19202084	230047241	34575460	204817485	41617686	104877862	37057216

Table 2: Pakistan Decent Work Indicators

Subject	Indicator	2008	2010	2015	2018
Population and labour force	Share of adult population with advanced education (%)	5.8	6.4	8.1	8.4
	Labour force participation rate (%)	50.1	51.0	52.0	51.0
	Labour force participation rate, men (%)	79.4	78.8	79.7	80.4
Employment	Labour force participation rate, women (%)	20.0	22.1	24.2	21.9
	Employment-to-population ratio (%)	49.9	50.7	50.2	48.9
	Employment-to-population ratio, men (%)	79.1	78.3	77.5	77.2
	Employment-to-population ratio, women (%)	19.9	21.9	22.7	20.9
	Share of agriculture in total employment (%)	44.7	43.4	41.0	37.4
Unemployment & labour underutilization	Share of industry in total employment (%)	20.1	21.4	24.0	25.0
	Share of services in total employment (%)	35.2	35.2	35.0	37.6
	Female employment share - senior & mid management (%)	5.2	6.4		4.2
Youth	Time-related underemployment rate (%)	0.6	0.7	0.4	0.7
	Unemployment rate (%)	0.4	0.7	3.6	4.1
	Unemployment rate, men (%)	0.4	0.7	2.8	4.0
	Unemployment rate, women (%)	0.5	0.6	6.1	4.6
	Youth labour force participation rate (%)	40.7	41.6	40.3	40.0
	Youth labour force participation rate, men (%)	62.9	62.1	59.8	61.3
	Youth labour force participation rate, women (%)	17.4	19.1	20.7	18.3
	Youth unemployment rate (%)	1.0	1.3	6.6	7.9
	Youth unemployment rate, men (%)	0.9	1.3	5.7	8.2

Youth unemployment rate, women (%)	1.3	1.1	9.4	6.8
Share of youth not in employment, education or training (NEET) (%)	33.3	31.1	30.4	31.0
Share of youth not in employment, education or training (NEET), men (%)	7.6	7.6	7.4	7.6
Share of youth not in employment, education or training (NEET), women (%)	60.4	56.9	53.6	54.9
Share of employees working more than 48 hours per week (%)	36.6	36.7	36.6	35.2
Mean weekly hours actually worked per employed person	47	47	47	47
Average monthly earnings of employees (local currency)	6879	8940	15559	19270
Average monthly earnings of employees, manufacturing (local currency)	7854	14035	17363	22.7
Gender wage gap (%)				
Percentage of health care expenditure not financed by private households' out of pocket payments (%)	47.4	36.8		37.0
Public social protection expenditure [all functions] as a percent of GDP (%)				1.7
Public social protection expenditure [excluding health care] as a percent of GDP (%)		1.3		1.3
Active contributors to an old age contributory scheme as a percent of the working-age population (%)				3.1
Trade union density rate (%)	5.6			5.6

Source: ILO STAT

Economic, Social and Environmental Upgrading in Pakistan

Confidentiality Statement: For research and dissemination purposes, all of the data collected on this questionnaire will be used in summary tables. The name of your unit will remain confidential.

Name of person filling out the questionnaire _____

Name of your company/factory _____

Address _____

Contact telephone number _____

1. What is your place in the value chain

Raw Material	Intermediate	Finished
--------------	--------------	----------

2. Specify exactly the process: _____

3. Location

Commercial	Residential	Cluster	Industrial Estate	SEZ/EPZ

4. Strength: Inception year: _____	5. Size: Assets (Rs in million) _____
---------------------------------------	--

6. Size of the business unit	# of employees in 2016:	# of employees in 2019:	
------------------------------	-------------------------	-------------------------	--

I. Questions used to build Economic upgrading constructs

1. How has your manufacturing performance changed over the last three years?

	Decrease	About the Same	Slightly Increased	Increased	Strongly Increased
	-5% or <	-5 > <+5	+5 to +15%	+15 to 25%	+25% or >
Product quality improved	1	2	3	4	5

New product introduction ability:	1	2	3	4	5
You introduced new production process	1	2	3	4	5
You introduced new goods	1	2	3	4	5
Process improved:	1	2	3	4	5
Technology improved/ share of machines	1	2	3	4	5
More skilled/ educated labour	1	2	3	4	5
Export increased:	1	2	3	4	5
Export value increased	1	2	3	4	5
Overseas demand improved	1	2	3	4	5
Your price decreased	1	2	3	4	5
You improved marketing	1	2	3	4	5
Product assistance/ support:	1	2	3	4	5
Customer service quality	1	2	3	4	5
Ordering cost	1	2	3	4	5
Manufacturing lead time	1	2	3	4	5
Unit manufacturing cost	1	2	3	4	5
Workers motivation & satisfaction	1	2	3	4	5
Health & safety conditions	1	2	3	4	5
Materials/water and / or energy consumption	1	2	3	4	5
Pollution emission and waste production levels	1	2	3	4	5

Water quality in the area	1	2	3	4	5
Expenses on environment	1	2	3	4	5
Industry-specific disease in workers	1	2	3	4	5
Safety measures	1	2	3	4	5

2. If your Production/ export decreased during the last 3 years, pl. give reasons as to why:

	Decrease	About the Same	Slightly Increased	Increased	Strongly Increased
	-5% or <	-5> <+5	+5 to +15%	+15 to 25%	+25% or >
Overseas demand decreased	1	2	3	4	5
It is difficult to export	1	2	3	4	5
Your price increased	1	2	3	4	5
Cost of production increased	1	2	3	4	5
Load shedding	1	2	3	4	5
Any issue, e.g. with banks, fbr, etc.- specify					
How has recent budget affected your business, specify					
Which policy, rule, regulation (or change) affected					
Any other problems, pl specify					

II. Exploring GVC/ GSC participation

1. Where do you source raw materials, parts/components, sub-assemblies/ systems & sell your finished products/services:

2. Origin (headquarters' country):

3. Dominant activity (answers should add up to 100% of the value):

	Sourcing	Sales			
Pakistan	%	%			
Outside Pakistan but within the continent	%	%			
Outside the continent	%	%			
Total	100	100			

4. How do you perceive the following characteristics of the environment within which your business unit operates?

Market size	Declining rapidly	1	2	3	4	5	Growing rapidly
Rate of technological change	Very low	1	2	3	4	5	Very high

Name of association/ group/ chamber, you are a member of:

III. Decent work constructs

Wage bill as a % to total cost: In 2016: In 2019:

	Men	Women	<15 years	15 -17 years
Number of employees				
Average wage (Rs)				
Any other reward - payment in kind				
Hours worked/day				
Overtime				
Leave/holidays/month				
Skill Level - Technical persons				
Highest qualification				
Lowest qualification				
Got training/ skills from where				
If there is a training arrangement of your own				
What are the hazards				
Safety measures				
Any other information:				

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