

**DEVELOPING SKILLED  
WORKFORCE FOR  
PAKISTAN'S EXPORT SECTOR**  
**Unique Approach to Skills Training**

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LIST OF ACRONYMS

AIDP	Auto Industry Development Programme
ATC	Apprenticeship Training Center
CAD	Computer-aided design
CAGR	Compounded Annual Growth Rate
CAM	Computer Aided Manufacturing
CDI	Cluster Development Initiative
CNC	Computer Numeric Control
CPEC	China Pakistan Economic Corridor
DAE	Diploma of Associate Engineer
DFID	Department for International Development
ERP	Enterprise Resource Planning
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
KPI	Key Performance Indicator
NAVTC	National Vocational and Technical Training Commission
NVQF	National Vocational Qualification Framework
ODM	Original Design Manufacturer
OEM	Original Equipment Manufacturer
OTJ	On the Job
PAAPAM	Pakistan Association of Automotive Parts Accessories Manufacturers
PBS	Pakistan Bureau of Statistics

LIST OF ACRONYMS

PFMA	Pakistan Footwear Manufacturers Association
PITAC	Pakistan Industrial Technical Assistance Centre
PLC	Programmable Logic Control
PRGTTI	Pakistan Readymade Garments Technical Training Institute
PSDF	Punjab Skills Development Fund
PSIC	Punjab Small Industries Corporation
PVTC	Punjab Vocational Training Council
QA	Quality Assurance
RCA	Revealed Comparative Advantage
SIDC	Sports Industry Development Center
SIMAP	Surgical Instruments Manufacturers Association of Pakistan
SME	Small & Medium sized Enterprise
SOP	Standard Operating Procedure
TEVTA or P-TEVTA	(Punjab) Technical Education & Vocational Training Authority
TSP	Training Service Provider
TVET	Technical and Vocational Education and Training
UNIDO	United Nations Industrial Development Organization
USD	United States Dollar





## PSDF ENABLING MARKET READINESS



Punjab Skills Development Fund (PSDF), funded by the Department for International Development DFID, UK, was established to address gaps and market failures in skills training in Punjab. PSDF began its operations by creating a program specifically aimed at increasing skills provision in the economically marginalized districts of South Punjab. Later, PSDF successfully moved towards providing support to industries by addressing their specific skills needs. PSDF has consequently emerged as an effective institution that has the experience of working with a wide range of industries and training providers. Given the enormous challenge of gainfully employing millions of idle youth, the role of PSDF remains very relevant.

This Study has been commissioned to help PSDF in designing strategic interventions and fund programs which can offer the most significant value for money proposition as well as potentially the quickest payback. Given the dynamics, the role and responsibility of PSDF becomes critical in transforming the skills sector by acting as a 'bridge manager' in the skills market. To this role, PSDF intends to ensure that during this slow growth period, it should utilize its resources effectively to ensure that market failures in the skills sectors do not detract performance as and when the growth cycle reverses. These conditions increase the need for PSDF to become more strategic and selective in its interventions and develop and fund programs that offer maximum value for money and the quickest payback.

Though the findings of the Report are primarily for informing PSDF's funded training programs, PSDF encourages all TVET players across Pakistan to benefit from the recommendations of this Study.





# EXECUTIVE SUMMARY

## INTRODUCTION

Punjab is the largest province in the country in terms of both population and GDP. With 110 million people and a GDP of USD 183 billion, the province is comparable to several large national economies. Recent population estimates show that approximately 32 million individuals in Punjab fall in the age bracket of 15-29 years. Almost 10.3% in this category are considered idle youth, who are neither in school/college nor employed. This demographic situation is a contingent opportunity for the province to productively capitalize on this resource. The boon from this demographic dividend will only be realized if the province is able to employ this growing number of youth productively. The other emerging opportunity for the province is transpiring in the shape of developments under the China Pakistan Economic Corridor (CPEC). The Long-Term Plan envisages a

significant amount of industrial relocation and cross border investment – Punjab being the biggest provincial economy is expected to attract a major share of this. These activities will generate growth and create demand for skills at all levels, especially for entry-level workers. Furthermore, there may be structural changes to the economy because of CPEC. It is important for the labour force to have the skills that allow them to take advantage of new opportunities and be resilient to structural and technological changes. Finally, the Punjab Growth Strategy 2023 lays significant emphasis on strengthening the export-oriented sector of the economy as it offers the maximum potential for inclusive growth. However, over the last two years, exports from the country have stagnated and even some of the ‘all season’ sectors have faced decline in volumes.

## OBJECTIVE

The overall objective of the study is to support PSDF in designing effective programme interventions that can engage a large number of youth in employment. The purpose of this study is two-fold, first, to identify core common skills across all export sectors and second, to develop recommendations for supporting workable programme design that will enable PSDF to support training, and subsequently assist in providing youth with employment.

- |  |                                                                                                     |
|--|-----------------------------------------------------------------------------------------------------|
|  | Mapping of common skills across sectors and geographical locations.                                 |
|  | A brief assessment of the employment opportunities in these sectors.                                |
|  | Outlining the details of the common skills that are required.                                       |
|  | Recommendations on intervention design to enable employment and absorption of Punjab's youth bulge. |

## FINDINGS

### 01

Through the literature review and interviews conducted with the stakeholders, 7 sectors, 13 common skills and 6 geographic clusters were shortlisted. Initially, 8 sectors were shortlisted including Garments & made-ups, Auto parts, Fans, Sports, Footwear, Surgical, Cutlery & Hand knives and Furniture. However, after the Phase-1 of the research it became clear that Furniture sector did not have any skills common with the other sectors and the export potential was little as well. Therefore, for analysis the Furniture sector was dropped.

### 02

Moreover, analysis also revealed that there are 13 skills common to many sectors, of which Machine use and Material management is required in every sector. Similarly, the interviews with key stakeholders revealed a dire need for soft skills such as work ethics, time management, communication, safety & hazard precautions etc., in addition to sector specific skills.

## RECOMMENDATIONS

Based on the extensive research and analysis carried out as part of this Study, two models for PSDF's intervention in the provision of the 13 shortlisted common skills have been developed including both short- and long-term interventions.

### 01. IMMEDIATE MODULES

#### Modular Approach

The 'Modular Approach' is a proposed supply side intervention, where PSDF will work with training providers to design basic skill training modules i.e. 'Module Zero and Module 1, 2 & 3' courses for the thirteen shortlisted common skills across seven high export potential sectors.

i) Module 0 courses would impart basic training on key soft skills along with respective common skills. Some key soft skills to be covered may include occupational safety, health, basic numeracy and work ethics. The module will also include a basic career orientation which would guide trainees on the potential career paths available beyond the training. Additionally, PSDF is interested in incorporating courses on Digital

Financial Literacy as part of these soft skills as another measure of trainee enablement.

ii) Module 1 and 2 will be slightly more advanced/technical modules which are responsive to the needs of a particular industry.

iii) Module 3 has been proposed as a specialized advance course for a few common skills which are more technical in nature including Metal Forging and Dyeing/Molding.

#### Industry Specific Training Programs

PSDF's inputs on these industry specific advanced modules will need to be managed effectively from a commercial point of view. As these particular interventions are expected to help specific players – these will need to find sponsorship (partial or even fully sponsored) from the industry or industry associations (depending upon the size and skill demand).

i) Partnering with Industry Associations  
For small and medium sized businesses, the PSDF

partnership model should focus on working with sector associations to design and deliver these advanced training modules. This approach would help PSDF in improving its program governance, enhance transparency, reduce training costs and offer enhanced accountability for employment of trained resources.

ii) Partnering with One Large Player in the Industry  
The second partnership option is where PSDF partners with one large player in the industry. Under this partnership model, PSDF can initially offer support to train workers for the industry itself. This support should ideally be commercial and/or technical support – however, according to the authors a monetary agreement shall be preferred by the respective brands. The brand is expected to offer its trainings commercially and PSDF too can leverage the brand name and increase demand for these potentially co-funded PSDF trainings. In doing so, PSDF can capitalize on the intrinsic demand for industry led and designed courses. The brand name would allow charging of premium pricing for provision of trainings but also importantly attract willing or self-motivated trainees. Such a partnership can also help PSDF in meeting its targets for training of Punjab's youth as well as its employment targets, set under the Punjab Growth Strategy 2023.

Therefore, as a long-term strategy, PSDF may explore the option of developing value-added services which have the potential to become major sources of revenue and help it in achieving self-sustainable operations.

Large industrial groups in the country have been observed to be supportive towards helping Pakistan in meeting the United Nations Sustainable Development Goals (SDGs). In fact, many companies have already diverted their CSR funds towards helping Pakistan achieve SDGs. Skills and employment creation and poverty reduction are amongst the key goals of SDGs, and with PSDF being a credible and transparent fund working within the sector, an approach towards establishing blended finance products may be taken. PSDF in addition to contributing towards seed capital will be the fund manager. The fund would finance initiatives such as sustainable and high-quality training institutions. These institutes can be set up in areas which exhibit the greatest demand potential and will allow the private sector contributors to take credit for social impact as well. PSDF, on the other hand, would not only generate skilled employment but would also be able to sustain the non-profit institution by charging nominal fees for managing the fund and providing other related value-added services.

## 2. BLENDED FINANCE (LONGER TERM INTERVENTION)

This Study indicates that there is a dearth of good quality training institutes in the country. This shows a potential gap in the market, especially in the longer term when it is expected that PSDF may come under pressure from the Government of Punjab as well as the donor agencies and may be required to move towards financial self-sustainability.



# 01 INTRODUCTION

## 1.1 CATERING THE YOUTH BULGE

With 110 million people and a GDP of USD 183 billion, Punjab stands as the largest province in the country in terms of both population and income. Recent population estimates show that approximately 32 million individuals in Punjab fall in the age bracket of 15-29 years of which approximately 10.3%<sup>1</sup> are considered as idle youth, who are neither in school/college or employed. Therefore, the biggest challenge for policy makers in the province is to gainfully employ this youth bulge by creating approximately 1.2 million jobs per annum and reduce the idle youth to 8.8 % by 2023<sup>1</sup>.

## 1.2 CHINA PAKISTAN ECONOMIC CORRIDOR (CPEC): THE NEW ERA

The other emerging opportunity for the province is transpiring in the shape of developments under the China Pakistan Economic Corridor (CPEC). CPEC, a USD 46 Billion project, is set to transform the industrial dynamics of Pakistan, as global value chains and spatial locations of production are continuing to shift, especially as China's industry is relocating to Pakistan<sup>2</sup>. Multiple Special Economic Zones (SEZs), most of which are being created in Punjab, are expected to boost the export levels of the province. These activities will generate growth and create demand for skills at all levels, especially for entry-level workers, thus raising the need for upgradation of the skillset and human capital. Furthermore, there may be structural changes to the economy because of CPEC. It is important for the labour force to have the skills that allow them to take advantage of new opportunities and be resilient to structural and technological changes.

## 1.3 ARE WE READY FOR THE CHANGE?

In an age where the nature of our work and our workspaces are evolving continuously, it is imperative for our human capital to be adaptive to the needs and requirements resulting from this change. In Punjab's context, the historically agriculture-based economy has shifted towards industrialization where automated systems and mechanization is gradually replacing manual labor in almost all sectors (may it be services, industry or agriculture). Given the current circumstances, inclusive growth is possible only if the skill base of Punjab's youth is improved and our workforce is trained to meet the labor market demand.

Realizing this potential, training authorities in Punjab including TEVTA, PVTC, PSDF and the private sector have been working towards skilling the workforce through provision of market relevant and demand driven skills training in order to bridge the gap between existing training supply and market needs. The target of training 2 million skilled graduates set out by the previous Punjab Growth Strategy (2018)<sup>3</sup> was effectively met. The training capacity in the province was increased at an average of 16 % per annum in the period, reaching almost 600,000 in the terminal year (Figure 1).

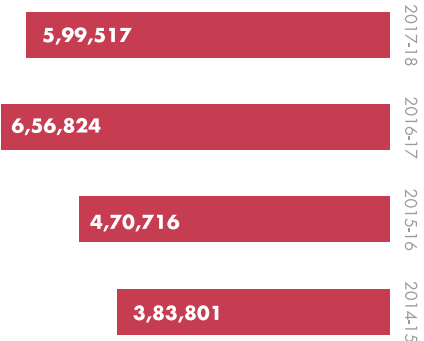


FIGURE 1: NUMBER OF SKILLS TRAINING PER YEAR, 2015-18

However, analysis revealed two dominant issues in the trainings imparted; i) the lack of soft skills among the trained and ii) lack of specific skills required by industry as the skills imparted were more well-suited for entrepreneurship. Figure 2 reveals the skills imparted through P-TEVTA and PVTC over the past five years. The Punjab Growth Strategy 2023 indicates that although the focus was placed on provision of quality trainings, the lack of a proper implementation plan resulted in poor linkage between the demand side factors and the supply-side of trainings.

Keeping this in mind, PSDF intends to be extremely specific in picking up skills common to a range of high export potential sectors, and whose provision matters most and would therefore generate the greatest industry interest. This shall also enable fulfilling the target of training 2.5 million youth in the next five years set out in the Punjab Growth Strategy 2023. The key starting point is the challenge that the industry at large does not see labor-skills to be a binding constraint as it continues to deal with structural issues (including rampant currency fluctuations, business environment issues, taxation and regulatory regime issues, lack of innovation and investment, as well as poor product diversification and market access) This study is therefore important to map out the common skills required by all the leading sectors of the economy and propose solutions which will enable imparting of common skills across board to not only diversify the skill set and add value to the training quality but also enhance employability opportunities.

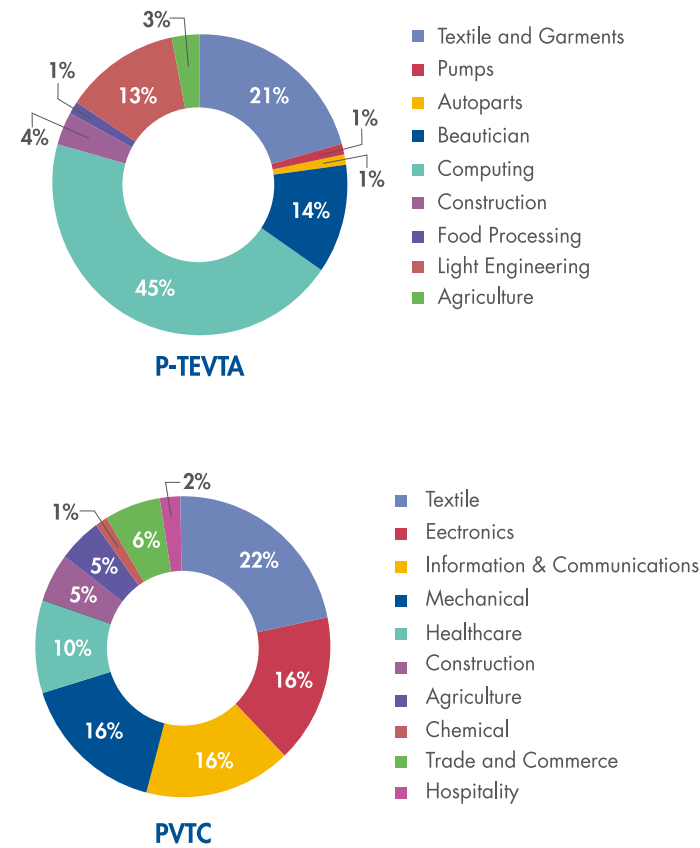


FIGURE 2: SPREAD OF SKILLS PROVIDED BY P-TEVTA & PVTC (2015-18)



PUNJAB GROWTH STRATEGY 2023 TARGETS FOR SKILLS DEVELOPMENT

- 01** Train a total of 2.5 million skilled graduates over the 5-year period to 2023.

**02** 10 % of the skills trainings will be provided through industry partnerships by expanding both the PSDF interventions and enlarging the scope of the P-TEVTA industry partnership framework.

**03** 30 % of the skills trainings will be in industry-relevant trades for sectors that are growing, with a focus on export growth sectors.
- 04** 10 % of these trainings will be futuristic and will incorporate expected demand under the CPEC and resulting technological growth.

**05** 35 % of the target will be delivered by the P-TEVTA, 30 % by the PVTC, 20 % by PSDF and 15 % will be delivered by the private sector.

**06** 10 % of skills trainings will be geared for overseas markets, especially the UAE, given the upcoming events like World-Expo and Football World Cup in Qatar.



1.4  
PUNJAB’S INDUSTRIAL LANDSCAPE

Punjab plays a dominant role in virtually all the sectors of Pakistan’s economy. Figure 3 shows that the performance of Punjab’s economy moves in tandem with the national economy and exceeds the national GDP growth rate for all reported years (except 2006- 07). The estimated share of the economy of Punjab in the national GDP was 54.2% in 2017-18. This implies that given the share in population of just below 53%, the per capita income of Punjab is 2% higher than the national average.

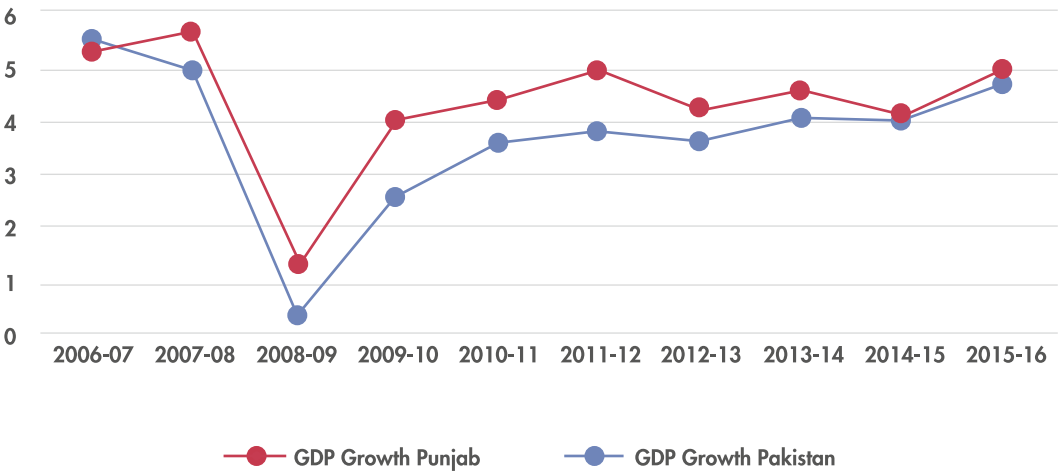


FIGURE 3: GROWTH RATE OF PUNJAB GPP AND PAKISTAN GDP, 2006-2016

The industrial sector of Punjab in 2017-18 contributed 17.6% to the total value of goods and services produced in the economy. It employed almost 9.3 million people, out of which 4.58 million were engaged in the SME sector of Punjab. Punjab’s share in national exports was close to 51% with industrial sector being the major contributor. In terms

of the share of value added in the respective sectors during the last decade, Punjab’s agriculture contributed an average of 40%, the industrial sector grew from 50% to almost 60%, and services were at 56%. There is very little variation in Punjab’s sectoral growth rates compared to the country as a whole (Figure 4).

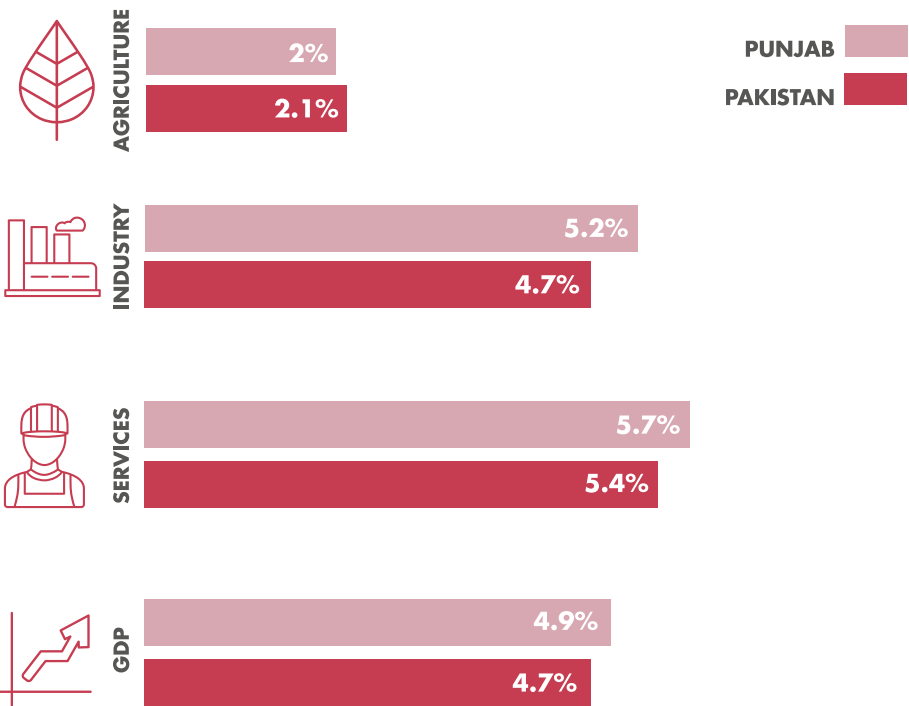
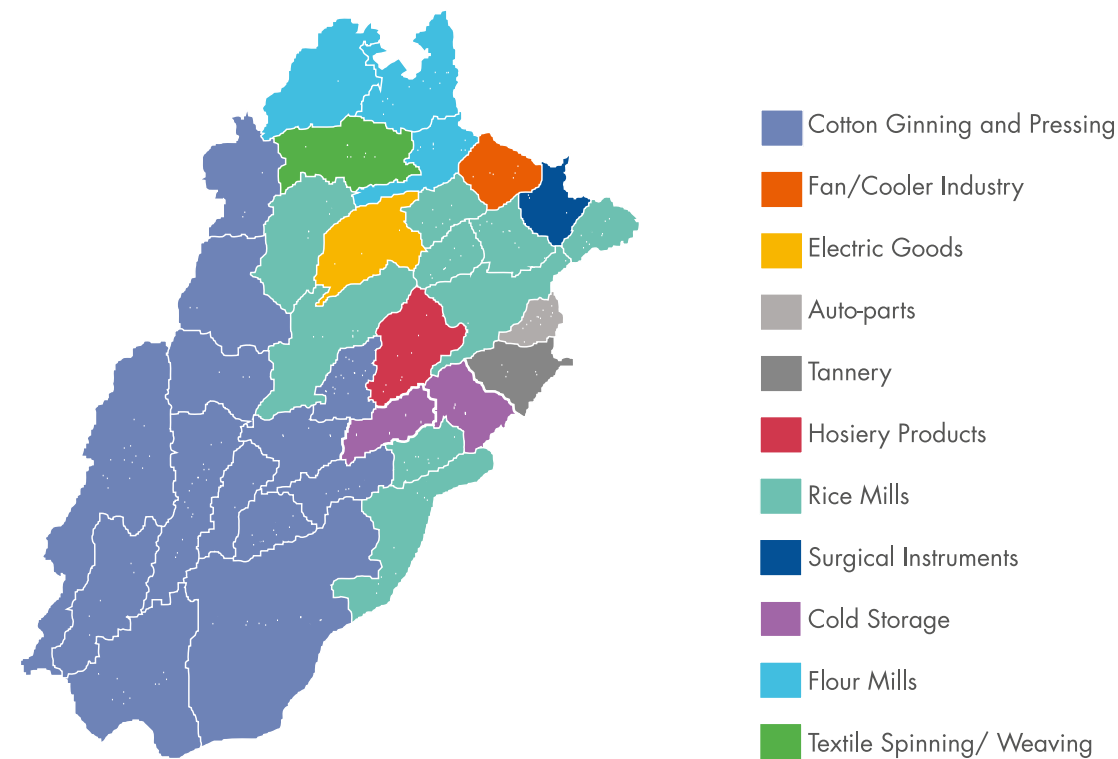


FIGURE 4: SECTORAL GROWTH RATES (PUNJAB & PAKISTAN) (2012-2018)



**FIGURE 5: PUNJAB'S INDUSTRIAL CONCENTRATION BY DISTRICT (2016)**

Out of all sectors, the LSM sector is expected to gain momentum from the development work being done under the China Pakistan Economic Corridor (CPEC) going forward. The Overseas Investors Chamber of Commerce & Industry (OICCI) in its latest business survey stated that improvements in energy management and the law and order situation have led to an upturn in confidence of the business community as the Business Confidence Index (BCI) – Wave 12 – touched a record level of 36%, showing an improvement of 14% over the previous survey in 2015. The sector has also benefitted from the continued improvement in the supply of electricity and gas coupled with an expansion in credit to the private sector. The expansion in credit to the private sector remains high due to the lower cost of capital and better market conditions. All this is relevant for PSDF as the growth in these sectors are likely to increase exports and subsequently demands for skills resulting in more productive employment opportunities.

Industrial units in Punjab have remained largely concentrated in just a few districts, of which Lahore (19%), Multan (11%), Faisalabad (10.5%) and Sialkot (8%) are the major exporting hubs in Punjab and also house the majority of SMEs in the country (Figure 5). Faisalabad, Lahore and Kasur together employed 45.2% of Punjab's industrial labour in 2006, which has dropped marginally to 43% in 2016. On the other end of the spectrum, Rajanpur, Jhelum, Lodhran, Narowal, Bhakkar and Layyah each continue to provide less than 0.5% of the industrial employment in Punjab.

#### 1.4

### OBJECTIVES

The overall objective of the study is to support PSDF in designing effective programme interventions that can put a large number of youth in employment. Instead of focusing on sector specific skills, this study aims at identifying and describing key skills that are common across different high potential sectors. As the demand for training of identified common skills is expected to be large, this approach will allow PSDF's intervention and impact to be at a much larger scale. Therefore, the purpose of this study is twofold, first, to identify core common skills across sectors and second, to develop recommendations for supporting workable programme design that will enable PSDF to not only support training, but also assist in placing a substantial number of youth in employment. The following are the key outputs which cover the scope of the study:



**MAPPING OF COMMON SKILLS ACROSS SECTORS AND GEOGRAPHICAL LOCATIONS**



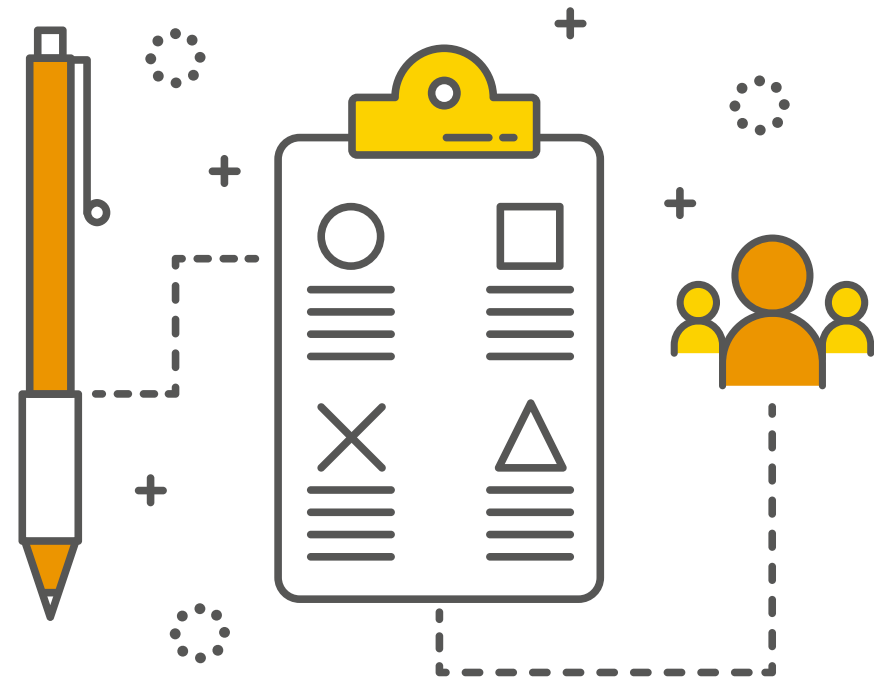
**A BRIEF ASSESSMENT OF THE EMPLOYMENT OPPORTUNITIES IN THESE SECTORS**



**OUTLINING THE DETAILS OF THE COMMON SKILLS THAT ARE REQUIRED**



**RECOMMENDATIONS ON INTERVENTION DESIGN TO ENABLE EMPLOYMENT AND ABSORPTION OF PUNJAB'S YOUTH**



## 02 METHODOLOGY

In order to identify the common skills required across sectors, primary and secondary data was collected and analyzed. As part of the research, a desk review was conducted by using various literatures available on skills development and previous sector studies commissioned by PSDF. Publications from State Bank of Pakistan, Pakistan Bureau of Statistics and Government of Punjab's Bureau of Statistics were also consulted. Moreover, the analysis was informed by interviews and consultations with more than 35 stakeholders from various manufacturing and

export sector associations in the province. A detailed review of economic data by sector was also carried out. The intent of this exercise was to quantifiably assess sectors offering maximum growth and employment opportunities going forward. The framework deployed for shortlisting of sectors is cognizant of this need. Rather than simply reviewing baseline number for exports by sector, a growth diagnostic derived from the Revealed Comparative Advantage (RCA) methodology is applied to identify sectors that carry most potential.

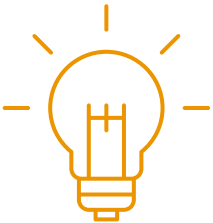
The research has been broken into two distinct phases:

### PHASE 1



IDENTIFICATION OF KEY SECTORS,  
CLUSTERS AND COMMON SKILLS

### PHASE 2



VALIDATION OF COMMON SKILLS  
AND RECOMMENDATIONS FOR  
PSDF INTERVENTIONS



PHASE 1  
IDENTIFICATION OF KEY SECTORS AND COMMON SKILLS

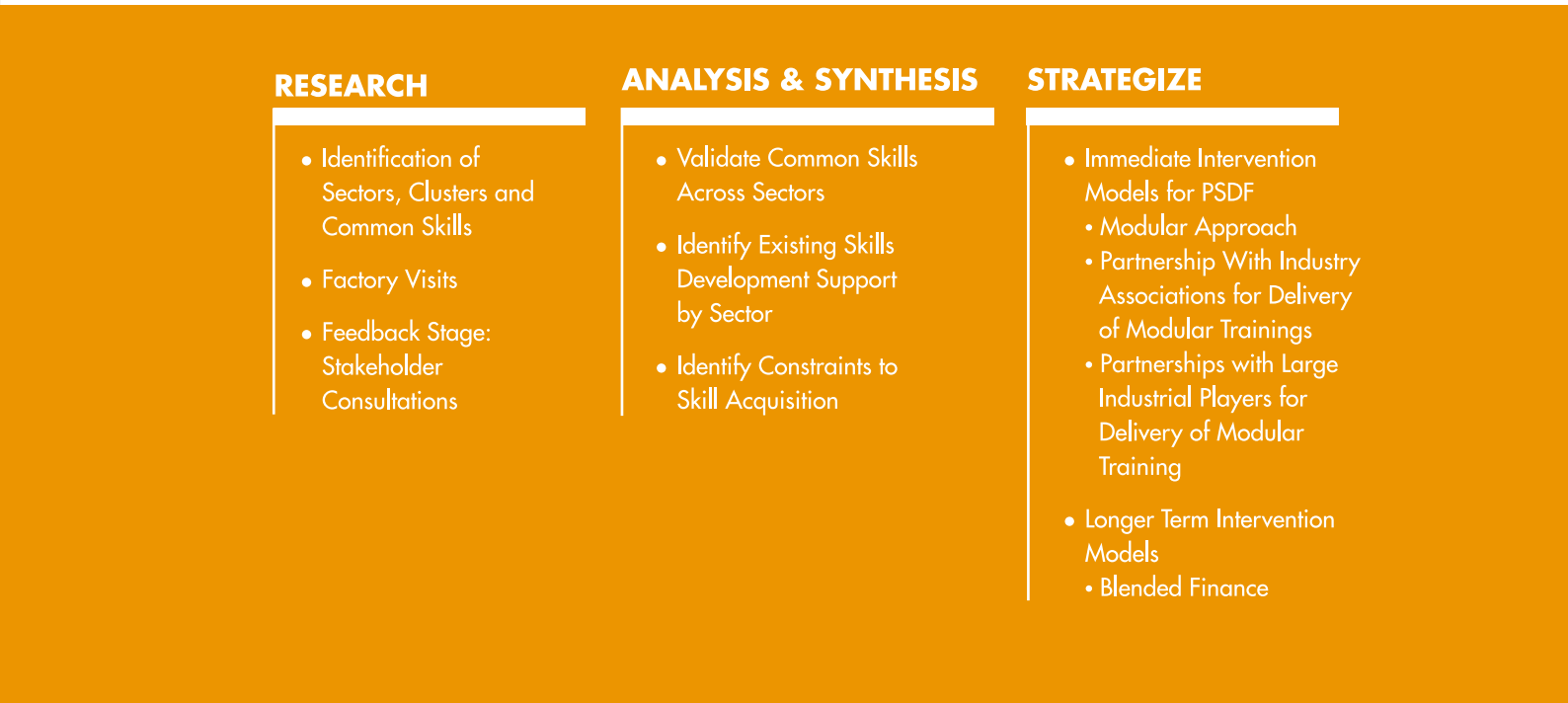
Phase-1 followed a logical two step approach to assess and identify key sectors as well as map the common skills across these sectors. The diagram below presents an overview of the same.



During the first phase, the literature was reviewed to synthesize the sector requirements and identify overlapping skills needed in these sectors. The interviews and focus groups with stakeholders in the first stage served as a diagnostic wherein the analysis and synthesis of findings was carried out with the intent to map the common skill requirements along value chains, focusing on the most critical/binding skills requirements. The study takes a skill-specific approach rather than a product-specific approach.

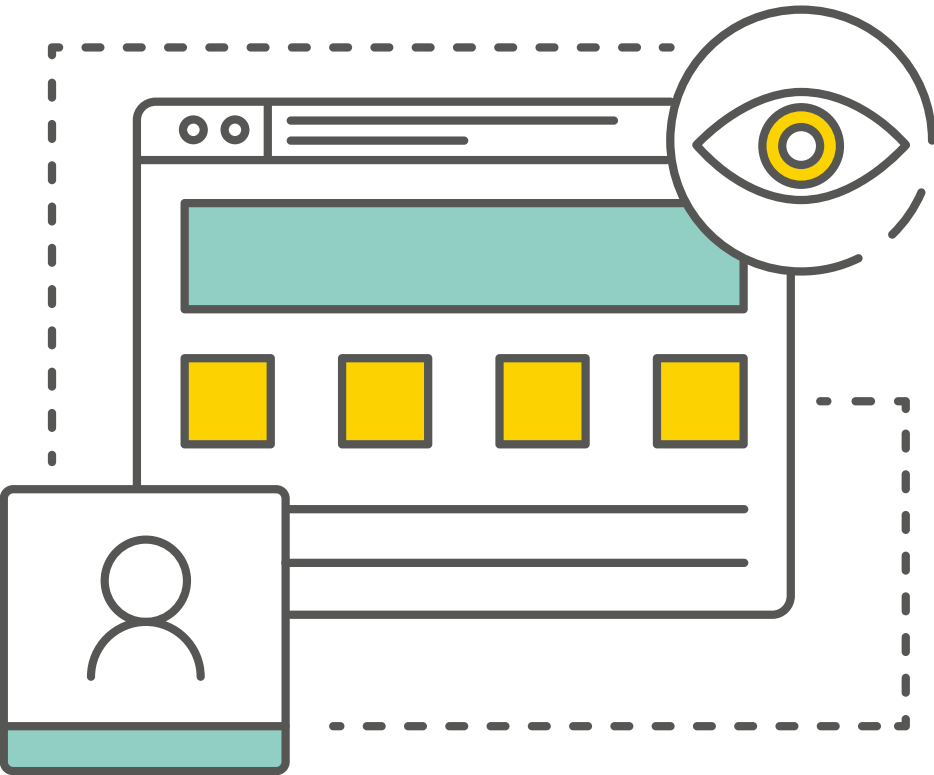
PHASE 2  
VALIDATION OF COMMON SKILLS IDENTIFIED

In the second stage, the common skills have been mapped back to exporting firms that could be potential partners in deploying modular trainings, based on their respective capacity and interest in imparting these trainings.



The methodology undertaken in this second phase followed the logical three steps; ‘Research’, ‘Analyze and synthesize’ and ‘Strategize’ phases. The intent of the validation exercise for common skills is to ensure that the program design meets market requirements and is responsive to demand by the shortlisted eight sectors. The second round of stakeholder consultations was carried out in the research phase of this validation exercise. Whilst, in the previous ‘Identification Stage’ these consultations were more diagnostic in nature and helped identify the skill requirements and key industry pain points, this second round helped in gathering ‘feedback’ on the proposed

recommendations developed. For this round, the Consultants carried out focus groups with the association and a sample of 3-5 firms, particularly focusing on women-led firms and those that have poor representation within the Chambers of Commerce and Industry Associations. Additionally, post the ‘Identification Phase’ as it was decided that the study will be focusing on 7 of the 8 sectors, 13 most common skills and 6 geographical clusters, it was also decided that factory visits to a sample industrial unit shall also be carried out to understand the processes and skill needs more accurately.



03  
FINDINGS

Based on the analysis, seven out of eight shortlisted sectors were selected which include Surgical, Cutlery and Hunting Knives, Sporting Goods, Auto Parts, Fan, Garments and Made-Ups and Footwear Industry. Profile for the eighth industry shortlisted i.e. Furniture has not been developed owing to the fact that it does not have many skills common to the remaining seven sectors nor is the export potential for the sector positive. According to the authors, the furniture sector mainly requires specific wood-working techniques which the other sectors do not. The making of the metal parts of the furniture such as the bolts and handles are outsourced to vendors, including factories that produce cutlery, and therefore the sector has not been analyzed at length in this study.

3.1 SHORTLISTED SECTORS



SURGICAL INDUSTRY



FOOTWEAR INDUSTRY



GARMENTS INDUSTRY



AUTO PARTS  
INDUSTRY



SPORTING GOODS  
INDUSTRY



CUTLERY &  
HUNTING KNIVES  
INDUSTRY




FAN INDUSTRY

3.2 COMMON SKILLS IDENTIFIED



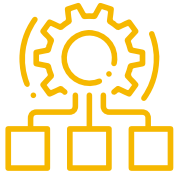
METAL FORGING




WELDING & DRILLING




MATERIAL MANAGEMENT



PRODUCTION MANAGEMENT



LEAN MANAGEMENT



GRINDING & POLISHING



MACHINE OPERATING



DYEING



CAD/CAM DESIGN



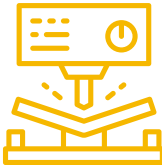
PATTERN-MAKING



MATERIAL HANDLING



STITCHING



METAL PRESSING & HANDLING

3.3 MAPPING OF COMMON SKILLS

	GARMENTS	FOOTWEAR	SPORTS	CUTLERY	SURGICAL	AUTO PARTS	FANS
Metal Forging							
Welding & Drilling							
Material Management							
Metal Pressing & Handling							
Production Management							
Grinding & Polishing							
Machine Operating							
Dyeing							
Designing							
Pattern-making							
Material Handling							
Stitching							
CAD/CAM							
Lean Management							
GEOGRAPHICAL CLUSTERS	Lahore, Faisalabad						
	Sialkot, Wazirabad						
	Lahore, Gujrat, Gujranwala						Gujrat





### 3.4 SECTOR ASSESSMENT

This section provides brief profiles of the seven shortlisted sectors, which not only are currently major export sectors, but based on the RCA approach have been found to exhibit the most significant economic potential (including exports) going forwards. The sector profiles have been developed through a review of the literature and inputs from the sector including industry associations as well as key industrial partners.





### 3.4.1 SURGICAL INDUSTRY

**LOCATION**  
Sialkot



**SECTOR OVERVIEW**

- The sector comprises over 10,400 operating units (of which 3,200 are SIMAP members).
- Out of these, 30 are large, 150 medium and rest are small vendor and exporting units. The larger companies have fully integrated in house production units, while the small and medium sized firms rely on external vendors.



**EXPORTS**

Pakistan’s exports from this sector in FY18 was approximately **USD 384.24 million (PKR 46.7 billion)**



**TOTAL EMPLOYEES**

The sector is extremely labour intensive and the industry estimates over **50,000** current employees



**TRAINING LANDSCAPE**

The sector has access to three training institutes. However, the association and the sector players are not reportedly satisfied with the activities and the support being currently provided by training institutes working within the sector.

- Metal Industries Development Center, Sialkot
- Institute for Surgical Technology, Sialkot
- Government Apprenticeship Training Center, Sialkot



**SKILLS REQUIRED BY SECTOR**

- Grinders and polishers
- Filers
- Fitters
- Tool, dyes and mould makers
- Machinists, machine operators
- Accountants, merchandizers and export managers



**SKILLED WORKERS DEMAND**

From discussions with the Surgical Instrument Manufacturers Association of Pakistan (SIMAP) , it was revealed that at present there is a demand of a 1,000 grinders and polishers per annum by the industry.



**AVAILABLE CURRICULUM**

- NVQF 2: Welding; Heat, Ventilation & Air-conditioning; Machinist; Electromechanica Technology, Electrical Equipment Installation & Repair, Welding and Fabricator
- NVQF 2: Computer Operator, Office Assistant
- NVQF 3: Auto CAD; Automotive Technician; Mechanical Manufacturing; Mechatronic Technician, Electronics Technician; CAD/CAM Operator
- NVQF 3: Call Centre Agent; Logistics & Supply Chain Assistant; Web Designing & Development;
- NVQF 4: E-commerce
- NVQF 5: Energy Efficiency Advisor



### 3.4.2 CUTLERY AND HUNTING KNIVES INDUSTRY

**LOCATION**  
Wazirabad



#### SECTOR OVERVIEW

- Sector comprises around 800 units which are mostly small in size and are using low technology machinery and can be classified as semi mechanized; others predominantly rely on conventional methods and hand crafting.
- Historically the industry was an import dominated sector with cheap and medium quality Chinese cutlery (10 – 12 years ago) , however, now the local industry reportedly currently enjoys an estimated 80% share in the national market. The sector also has a niche product i.e. hunting knives and daggers. These products have a huge potential both as ornaments and sporting weapons.



#### EXPORTS

The exports from this sector in FY18 alone were recorded at  
**USD 68.48 million (PKR 8.32 billion)**

“The cutlery sector is in dire need of skilled polishers.  
We can enhance our production efficiency only if we  
have trained workers who can perform the job adeptly.”  
Mr. Nadeem Warraich | CEO, Mabson Industry



#### TOTAL EMPLOYEES

- The sector is highly labour intensive, and the industry estimates a direct employment of 35,000-40,000 individuals by the sector.
- The sector also has a well-coordinated association with over 300 members, namely the Pakistan Cutlery and Stainless Utensils Manufacturers and Exporters Association.



#### TRAINING LANDSCAPE

- The P-TEVTA institute works as a service provider to the industry and also takes part in commercial sales of cutlery.
- Sectoral players indicated that training provision at the P-TEVTA's Common Facility and Training Center at Wazirabad is fairly limited and does not fully meet the industry's current needs.
- Furthermore, the Pakistan Cutlery Institute is currently not operational. This is a federal government institute, and according to key stakeholders from the sector, the institute can act as a good venue for training of its human resources provided the institute is handed over to the industry.
- The sector also has access to two training institutes, namely:
  - Common Facility & Training Center of P-TEVTA, Wazirabad
  - Pakistan Cutlery Institute, Wazirabad



#### SKILLS REQUIRED BY SECTOR

- Grinders and polishers
- Metal cutters
- Fitters
- Accountants, merchandizers and export managers



#### SKILLED WORKERS DEMAND

At present there is a demand of 400-500 grinders and polishers by the industry



#### AVAILABLE CURRICULUM

- NVQF 2: Welding; Heat, Ventilation & Air-conditioning; Machinist; Electromechanical Technology, Electrical Equipment Installation & Repair, Welding and Fabricator
- NVQF 4: E-commerce
- NVQF 5: Energy Efficiency Advisor





### 3.4.3 SPORTING GOODS INDUSTRY

**LOCATION**  
Sialkot



#### SECTOR OVERVIEW

- More than 2,500 establishments are engaged in the production and export of sports goods in Pakistan including formal units, informal cottage units, vendors and home based/occasional or seasonal producers.
- The number of permanent manufacturing units which are engaged in regular consistent manufacturing throughout the year can be estimated at 1,500, while the remaining are of a more temporary/seasonal nature.
- The value chain includes marketing and export companies, raw material suppliers, production units and partial job vendors.
- The production processes at manufacturing units have been found to vary and depend on the type of product and size of firm.
- The sector involves certain skills like pattern making, cutting, screen printing, hand stitching, machine stitching, wood working and composite forming, etc.
- Besides the manufacturing units, hundreds of small stitching centres and service providers exist in close proximity to Sialkot and are commonly approached for provision of services, especially in the case of footballs.



#### EXPORTS

- According to official statistics, the country exported **USD 332.516 million (PKR 40.4 billion)** worth of sports goods during FY18.
- Major sport good manufacturers in Sialkot are official suppliers of major international brands including the following



#### TOTAL EMPLOYEES

- The consistently manufacturing or more permanent units are highly labour intensive and employ around 55,000 people at present.
- The culture of contracted labour and outsourcing is quite common in this sector, while only large and organized units are known to employ permanent labour.



#### TRAINING LANDSCAPE

- There are currently two training institutes operating in the sector and include:
- Sports Industry Development Center (SIDC), Sialkot – linked to sports goods association
  - Government Apprenticeship Training Center (ATC), Sialkot.



#### SKILLS REQUIRED BY SECTOR

- Machine stitching operator
- Hand stitchers
- Pattern maker, Pattern designer and cutter
- Wood turners, Woodworkers, Woodworkers for cricket bats, including jointers, samplers, polishers, blade shapers, handle makers
- Cutting and Screen printing
- Workers for composite based products including mould masters and tube machine operators
- Export Managers
- Plant & equipment maintenance technician



#### SKILLED WORKERS DEMAND

- At present there is a demand of 15,000 workers, with 70% of these linked to stitching skills, grinders and polishers by the industry.



#### AVAILABLE CURRICULUM

- NVQF 2: Heat, Ventilation & Air-conditioning; Machinist; Electromechanical Technology, Electrical Equipment Installation & Repair; Computer Operator, Office Assistant.
- NVQF 3: Auto CAD; Automotive Technician; Mechatronic Technician, Electronics Technician; CAD/CAM Operator, Call Centre Agent; Logistics & Supply Chain Assistant
- NVQF 4: E-commerce
- NVQF 5: Energy Efficiency Advisor





### 3.4.4 AUTO-PARTS INDUSTRY

**LOCATION**  
Karachi



**SECTOR OVERVIEW**

- Over 2,200 manufacturers of auto-parts of which 90% are small to medium sized enterprises (SMEs) and mostly manufacture parts for the replacement market.
- A large number of units work directly for the Original Equipment Manufacturers (OEM)'s and make original parts as well.
- The Auto-Parts Industry has developed good technical linkages with many global companies, and this has resulted in a rapid technology change and hence an increasing demand for skills by this sector.
- The market size for automobile parts is increasing on the back of additional capacity enhancements by existing OEMs as well as the announcement of new OEMs investing in Pakistan (especially post the promulgation of the Auto Industry Development Programme (AIDP) 2016 – 2021).



**EXPORTS**

The country exported **USD 14.8 million (PKR 1.80 billion)** in FY18.

“The reason skills training is very important for us is because the auto industry is changing the energy mix. This means a change in the ways of production in the auto industry. The inception of Electric cars and subsequent change in technology is going to raise demand for certain skills drastically.”  
Mr. Almas Hyder | Chairman of Synthetic Products Enterprises Ltd (SPEL)



**TOTAL EMPLOYEES**

The sector has a direct employment contribution of approximately 200,000 individuals.



**SKILLS REQUIRED BY SECTOR**

- Whole range of metal working and electrical trade, which includes Machine tool operators,
- Black Smith, Bench Fitter, Welders
- CNC operators
- PLC technicians' and Industrial electrician
- CAD/CAM technician Product Designer



**SKILLED WORKERS DEMAND**

- A recent study estimated a requirement of 50, 000 persons over the next three to five years
- Key stakeholders and literature reveal the following composition for skills:

Tools dyes and moulds	12.8%	Rubber/Plastic Parts	17.6%
Sheet Metal	20.5%	Electronics/Electrical Parts	13.1%
Metal Casting	11.8%	Assembly	13.2%
Metal Forging	14.7%	Store keeping	17.1%

Source: Market Research



**TRAINING LANDSCAPE**

The skills training institutes working in the sector include:

- TEVTA Training Facilities
- Apprenticeship Training Centre
- Punjab Vocational Training Council
- DESCON Technical Institute
- Lahore University of Engineering & Technology
- University College of Engineering & Emerging Technologies
- Punjab University
- Institute of Quality & Technology Management
- Usman Institute of Engineering and Technology
- University of Management Technology



**AVAILABLE CURRICULUM**

- NVQF 2: Welding; Heat, Ventilation & Air-conditioning; Machinist; Electromechanical Technology, Electrical Equipment Installation & Repair, Welding and Fabricator
- NVQF 4: E-commerce
- NVQF 5: Energy Efficiency Advisor



### 3.4.5 FAN INDUSTRY

**LOCATION**  
Gujranwala, Gujrat



**SECTOR OVERVIEW**

- There are over 1,000 businesses involved with the fan industry.
- The industry produces about 17.5 million units out of which 63 % are ceiling fans.
- The production in the fan industry is mainly seasonal and the units switch to production of alternate products during off-season period.
- As the industry has predominantly micro or small-scale units, no significant emphasis on quality and safety standardization practices currently exists.
- The fans produced locally are of basic utility, and existing manufacturing concerns are neither innovative nor utilize latest technology.



**EXPORTS**

- Only 10% of the total local production is reportedly exported.
- Electric fan exports for FY18 amounted to **USD 25.798 million (PKR 3.134 billion)**
- Regional competitors include India and China.



**TOTAL EMPLOYEES**

The fan industry directly employs around 40,000 individuals, along with another 160,000 that are indirectly associated in the value chain.



**TRAINING LANDSCAPE**

- TEVET Institutions, Gujranwala
- Light Engineering Services Centre, Gujranwala.
- Apprenticeship Training Centre, Gujranwala
- Fan Development Institute, Gujrat



**SKILLS REQUIRED BY SECTOR**

- Assemblers
- Machine tool operators, Sheet metal workers
- Electricians, Welders
- CNC operators
- CAD/CAM technicians
- Product designers, Computer aided product/pattern designers
- Dyes and moulds technicians



**SKILLED WORKERS DEMAND**

The industry estimates an annual demand of 500 assembly workers.



**AVAILABLE CURRICULUM**

- NVQF 2: Welding; Heat, Ventilation & Air-conditioning; Automobile Mechanics, Auto Electrician; Machinist; Electromechanical Technology, Electrical Equipment, Installation & Repair, Welding and Fabricator, Computer Operator, Office Assistant.
- NVQF 3: Auto CAD; Automotive Technician; Mechanical Manufacturing; Mechatronic Technician, Electronics Technician; CAD/CAM Operator
- NVQF 5: Energy Efficiency Advisor





### 3.4.6 GARMENTS & MADE-UPS INDUSTRY

#### LOCATION

Lahore, Sialkot, Gujranwala, Faisalabad



#### SECTOR OVERVIEW

- Each of these four cities specializes in specific products. Lahore predominantly produces Denim products; Sialkot and Gujranwala are adept in Sports Goods and Technical Wear, whereas Faisalabad mainly produces hosiery and knitwear products.
- The sector is highly labour intensive and is also a sector that may structurally change post CPEC due to establishment of new industries.



#### EXPORTS

Garments and textile is one of the largest exporting sectors of Pakistan. The total exports of the sector in 2018 were recorded in excess of **USD 2.7 billion (PKR 328 billion)** which is approximately 10.90% of national exports for FY18.



#### TOTAL EMPLOYEES

The sector offers significant potential for a common skills intervention as it employs 38% of the total industrial workforce.



#### TRAINING LANDSCAPE

The sector has its own training institute, Pakistan Ready-Made Garments Technical Training Institute (PRGTTI). The institute is funded by the industry and is involved in providing factory ready workers.



#### SKILLS REQUIRED BY SECTOR

- Industrial stitching machine operators
- Stitching machine mechanic
- Apparel Supervisors
- Pattern drafting & cutting
- CAD/ CAM pattern design
- Quality control & QA Planning & production control staff
- Knitting machine operator
- Machine & hand embroidery
- Computerized industrial embroidery
- Professional garment washing



#### SKILLED WORKERS DEMAND

- There is an estimated demand of 133,000 workers over the next five years.
- The high demand areas include industrial stitching machine operator (28% of total requirement) and stitching machine mechanic (15% of total requirement).



#### AVAILABLE CURRICULUM

- NVQF 2: Dress Making; Knitting Machine Operator; Pattern Drafting & Grading, Computer Operator, Office Assistant
- NVQF 3: Textile/Fashion Designing, Web Designing & Development
- NVQF 2: Heat, Ventilation & Air-conditioning (HVAC); Home Appliance Technician; Industrial Electricity
- NVQF 3: Mechatronics Technician; Building Electricity; NVQF 1-3
- NVQF 4: E-commerce
- NVQF 5: Energy Efficiency Advisor



### 3.4.7 FOOTWEAR INDUSTRY

#### LOCATION

Lahore, Multan, Bahawalnagar, Muzaffarabad



#### SECTOR OVERVIEW

- There are currently more than 500 footwear manufacturing units in Pakistan, with almost 60% of them located in Lahore alone.
- The industry consists of mainly small units (149) followed by medium (41) and Large units (18)
- Pakistan produces over 360 million pairs of shoes a year. The industry is contributing well over USD 2 billion to national GDP, or around 1.65%.
- Growth projections suggest that 'Casual' footwear is expected to grow the fastest at 6.1% CAGR, followed by 'Athletic' (5% CAGR); 'Outdoor/Rugged' (4% CAGR) and 'Dress/Formal'.
- Pakistan's footwear production numbers are insignificant when compared to global production by China, India and Vietnam. A report by Global Industry Analysis predicts that total world demand for footwear will reach USD 371.8 billion by 2020 i.e. 25 - 30 billion pairs of shoes per year.



#### EXPORTS

- Pakistan exported approximately **USD 87.6 million (PKR 10.6 billion)** worth of footwear in FY18.
- There is a large number of small and cottage industry based in and around Multan, Bahawalnagar and Muzaffarabad manufacturing 'Arabian chappal' which is being exported to the Kingdom of Saudi Arabia in large numbers.



#### TOTAL EMPLOYEES

There are no official statistics available for employment in the footwear sector, however, industry estimates that the sector currently employs around 110,000 to 130,000 workers.



#### SKILLS REQUIRED BY SECTOR

- Machine stitching operators
- Pattern design and making
- Leather cutters
- Hand & machine embroiders
- Plant & equipment maintenance technicians
- Shoe lasers
- Shoe design using CAD CAM



#### SKILLED WORKERS DEMAND

It appears that Pakistan is moving towards building a base to be able to gain access to the expected growth numbers in demand for specific types of footwear across the globe. Thus, in the future footwear sector may present a significant growth pocket creating high demand for skilled workers. Moreover, the intervention could target their skill needs and support employment and income generation in South Punjab.



#### TRAINING LANDSCAPE

- Discussions with the PFMA also revealed that it is currently running a small training programme on its own that has been designed with the support of GIZ covering the entire production process of footwear manufacturing.
- The class size is limited to 25 trainees and the association claims that it is oversubscribed. This indicates the need to increase the scale of this training.



#### AVAILABLE CURRICULUM

- NVQF 2: Shoe Laster; Dress Making, Knitting Machine Operator; Pattern Drafting & Grading
- NVQF 3: Textile/Fashion Designing





## 04

## IDENTIFICATION OF THIRTEEN REQUISITE MODULAR TRAININGS FOR COMMON SKILLS

The sectoral overview presented in Section 3, clearly suggests that each sector being covered in this study has a fairly sizeable skilled labour force employment potential and are also major sectors for the country's economy through their respective contributions to national GDP and export incomes. A 'Modular Approach' has been suggested as a key recommendation of this Common Skills Study. It is a supply side intervention but is not defined on a curriculum model. The idea is to build module-based trainings based on identified common skills across the sectors assessed in Section 3 earlier. The modules have been categorized as 3 stages: Module 0, Module 1 and Module 2.

### MODULE 0 (SOFT SKILLS)

A critical gap in the provision of skills in the industry is the area of soft skills. Typical pain points indicated by firms include a lack in basic ethics, hygiene, punctuality, behavior, following orders, reading and comprehending English, requisite manners in working in a mixed-gender environment and loyalty. The modules would need to be defined by TSPs and include a Module Zero (0) on these basic cross cutting skills. This Module 0 would impart a basic introduction to the skill (e.g. stitching in sports goods and footwear) in addition to imparting requisite soft skills.

Additionally, as part of this Module 0, trainees will be guided on the career paths available to them post completion of training. This is a powerful component of the training as it would enable trainees to better understand the cross sectoral demand for the skill they are enrolled for and assess their future employability prospects. The sector specific modules will then build on that, and potentially attract talent which is more willing (through self-selection) and has a clearer

understanding of their personal growth prospects within a specific sector. These sector specific modules would be therefore more technical and run for a longer duration.

The PSDF plans to incorporate Digital Financial Literacy in the module and equip workers with this key skill as well. Digital financial Literacy means to have the adequate knowledge, acquired skills and developing the required habits to effectively use digital devices for financial transactions. The absence of these soft skills is a major problem for employers and results in issues of hiring and also impacts worker and by extension a firm/industry's productivity. Therefore, these soft skills should be made part of any basic training across all thirteen common skills. The Module 0 will be financed by PSDF itself. This is a key recommendation of this Study. Employers strongly feel that if the workers possess these basic traits, then he/she can be trained in any technical skill with ease. This in turn would translate into a greater interest for PSDF funded programs.

**MODULES 1 & 2  
(SECTOR SPECIFIC SKILLS)**

Modules 1 and 2 are more specific introductory programmes which cater to individual sectors and will be designed as per the need of the sector by imparting sector relevant technical skills including the shortlisted 13 common skills. PSDF's inputs on these industry specific introductory modules will need to be managed effectively from a commercial point of view. As these particular interventions are expected to help specific players, these will need to find sponsorship (partial or even fully sponsored) from the industry or industry associations (depending upon the size and skill demand by industry). PSDF's inputs in such a case may be limited from its existing role of facilitating and funding skill acquisition process, but also help design trainings and facilitate trainees as well as the industry at large. Imparting skills through these modules will also help bridge the skill gap that exists in the industry for these skills.

**MODULE 3**

In some cases, a module 3 has also been proposed which is a much more advanced training in specific sectors and can be treated as a specialization in a particular skill. This module has been proposed for only a few common skills.



**SKILL OVERVIEW**

A CAD/CAM expert is usually an engineer who can both design a product and control manufacturing processes. Professionals use CAD/CAM tools across multiple stages of product development including building designs in blueprints and creating or assembling physical products and parts using computer-controlled equipment. For example, in the sporting goods and fan industry, larger firms make products out of polymers, plastics and composites relying on both CAD and CAM for their designing needs.

The usage of this technique is heterogeneous. For example, in the garments industry CAD is used at the OEM (Original Equipment Manufacturer) level

but not at the ODM (Original Design Manufacturer) level. Other industries display sector-specific preferences as well.

CAD/CAM is widely used in metal working, industrial manufacturing, and woodwork as well as in other facilities where different kinds of physical products are made. CAD/CAM, conjoint with designing are also common across several sectors including Jewellery, Fans, Cutlery, Auto parts, Wood/furniture and Garments (leather, denim, cotton, synthetics), especially embroidery or ornamental printing.

**MODULES 0 & 1**

The core skill is the basic use of CAD/CAM software as well as an introduction to designing. The basic design development and introduction to CAD/CAM can be jointly acquired, through a basic design module (modules 0 and 1). These initial modules would impart requisite basic skills to trainees which shall enable them to understand the full process of design. With designing and

CAD/CAM use being a core operational requirement in modern manufacturing, such a module would be in demand by nearly all industries as well by firms of all sizes within these industries. Some of these industries include auto parts, fans, surgical equipment and others with a sizeable designing element in them

**MODULE 2**

A more advanced Module 2 could also be offered. The Module could be customized to meet the requirements of a specific industry such that the trainees could diversify into specific dye-making for plastics, metals, wood etc. A well-planned CAD/CAM interface helps

engineers to understand the processes they are creating, or to work more quickly and efficiently. The training provided herein would give them a competitive edge and enable them to build on their foundation skills that may be the future of the industry.





METAL FORGING

SKILL OVERVIEW

Forging is the process of squeezing, hammering, or pressing metal in the shape of a series of tool dyes/moulds. Different approaches determine the type or category of forging as it may be performed on heated or cold metal. Most sectors use a combination of both, depending on the strength and properties of the desired product. This makes forging one of the most common and for this Study, an important cross-cutting skill in the industrial sector and is relevant for four of the eight shortlisted sectors including Surgical goods, Cutlery and hunting knives, Fans and Auto-parts. Observation showed that this is a labour-intensive task, especially for the cutlery and surgical sectors, where runs are short, and workers must constantly re-orient the workpiece. Forge shop operators shape heated metal through hammering, pressing or squeezing, using

dyes/moulds to achieve the desired shape. Once the metal-forming dye/mould is made, the skill of the forge shop operator comes into play, especially in open-dye forging where the worker is required to correctly position the piece according to the overall thickness and width required, and carry out other forging procedures such as thinning out particular sections or form holes or grooves in certain areas. In the auto sector, impression-dye (closed-dye) forging is more commonly used for bulky parts that require high strength-to-weight ratios, which has been automated to some extent, with mechanical heating, feeding and positioning of workpieces. This has required a new skillset for labour, who were more used to semi-automated forging operations.

procedures to switch machinery on and off and basic SOPs such as those pertaining to movement around machinery, use of ear phones (to block out noise), and wearing forge shop uniforms when operating machinery. Additionally, this training would help trainees understand the proper chain of communication for reporting machine breakdowns and provide guidelines on proceeding forwards in the event of machine malfunction or worker injury.

MODULE 0

Forging of metal is a demanding task, requiring both precision and strength for pressing or hammering. Moreover, as workers are dealing with hot metal, there are also safety hazards. These include noise and chances of industrial accidents, especially with drop forging (a hammer drops onto a workpiece). As a result, firms surveyed indicated a need for a Module 0 on worker and machine safety. Along with partaking the standard soft skills training, this module would be a basic introductory course and involve trainees to understand basic procedures including

MODULE 1

Several industrial players surveyed, opined that a one-month Module 1 in metal handling (metal composition, understanding allowable tolerances, heat capacity, recrystallization, friction, lubrication, correct positioning of different metals) would also be necessary. Module 0 would be a

pre-requisite to this Module 1 and would allow workers in appreciating the need for precision when dealing with heated metal and expensive moulds. This training (if provided) would help the industry save considerable time and wages.

MODULE 2

Module 2 could be a 3 months specialised forging operations course and could be tailored to meet individual sector requirements. These may include an appreciation of the differences in application of heat treatment by trade. For example, in the auto parts sector heat treatment is typically

applied after forging, thus trainees will also be taught to understand the principal defects that may result from improper forging. Industrial units surveyed agreed that workers with a matriculation or DAE (Diploma of Associate Engineer) would be well-suited for Modules 1 and 2 trainings.

MODULE 3

They further suggested that if Intermediate/FSc level workers wish to enter the forging trade, they can be given training on the latest forging technologies that require CNC machining, for which ability to handle software is important in a more advanced Module 3. Other skills could be offered for grey iron casting, pressure dye-casting,

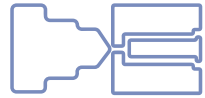
and training to use delicate power hydraulic presses, which are extremely costly, and may also be delivered under this module. This module would again need to be extremely customized to an industry specification, and a buy-in from either the industry association or a large player will be required for imparting the same.

LOCATION

Training should be spread out geographically – Lahore, Sialkot, Wazirabad, Daska, Gujranwala and Gujrat, which are all host metal-based industries in Punjab, are ideal locations for forging training.

However, firms suggested that while Modules 0 and 1 could take place at a training institute, Modules 2 and 3 must have in-factory application,

as the actual forging machinery is heavy to move. In addition, as many of these machines are costly, a common suggestion is to establish institutes that are equipped with the machinery and trainers, to allow sharing and technology dissemination amongst the rest of the industry.



## MOULD HANDLING/DYEING

### SKILL OVERVIEW

Moulds/dyes are used to shape heated material into large objects. Moulds are used to forge metals as outlined above but are also used to shape plastics and glass. The moulds are designed according to sector specifications either manually or for more complex moulds, through CNC machining. A newer method of spark erosion is also being used to make moulds in some of the leading firms. Mould handling is a cross-cutting skill across industries based on metal, plastic and glass.

According to firms/industries surveyed, the most important mould related skill is the preparation of moulds themselves. This includes an understanding of properly filling input materials as well as the

ejection and shaking out of the formed workpiece. Knowledge of the type of lubricant to spray in the correct amounts is critical to keep the mould cavity operating at its optimal. A common complaint made by all requisite firms surveyed was that workers are not trained to recognize the impact of mould performance on the final part quality, thereby disrupting delivery of parts with inconsistencies in product quality. PSDF currently offers a 3-month course on sheet metal and dye design. Trainees are trained on making prototypes, converting drawings from 2D to 3D, and making moulds for mass production, however there is currently no course on mould handling.

would instruct workers on how to benchmark mould performance using sector specific KPIs so that they can identify problems early on, saving time and money. Common defects presented by moulds for both metal and plastic could be covered, along with methods for early detection and simple troubleshooting.

towards rework techniques such as laser welding, brazing, fitting or polishing tools, upkeep, troubleshooting, and preventive maintenance of injection moulding machines and ancillary equipment.

#### MODULE 1 & 2

It is, therefore, suggested that a Module 1 course is developed which may provide information about the basic types of moulds and their components and last for a duration of 15 days. Graduates of Module 1 course could be offered a 2-month sector specific course on mould handling (including cleaning), maintenance and repair. This

#### MODULE 3

Module 3 can be offered which would be a sector-specific advanced module on fixing moulds using bench work for typical mould problems such as worn edges or scuffs. This module is to be offered only to the top achievers from Module 2, especially graduates indicating an aptitude



## WELDING

### SKILL OVERVIEW

Welding is a common joining technique and uses heat to melt parts together which fuse on cooling. It is used for joining metal and plastics. Various forms of welding are being commonly practiced and main skills required may be broken into the following:

- Angle setting
- Object placement
- Nozzle adjustment
- Advanced welding skills

Welding is used across all metal-based industries, and is a relatively easy skill to acquire, but it may only be honed through constant application and

experience. Manual welding is labor-intensive, as operation times depend on the welding machine itself. Moreover, welding is a very hazardous job and labour must be protected to avoid burns, inhalation of particulate matter, electric shock, eye damage, and breathing of toxic gases and fumes. Welders need to have a basic ability to read and interpret blueprints, some fabrication skills, and knowledge of welding symbols and electrodes. They must be able to correctly form weld joints and weld as per measurements and within specified tolerances of the workpiece.

#### MODULE 0 & 1

A Module 0 spanning 10 day on occupational safety (including the safe use of welding tools, power supplies, handling of compressed gas cylinders, and other equipment) is suggested. This module would also teach students to identify, explain and report the causes of accidents as well as the proper use of fire extinguishers. This training shall be complemented by standard soft

skills and career path orientation program as part of the one-month module 0.

A more advanced Module 1 is also proposed. This module would span a duration of 15 days and would teach students about different types of metals to be fabricated.

#### MODULE 2

A Module 2 course is also suggested, under which, trainees would be taught about the different types of weld joint preparation, position welding/cutting techniques and weld testing to certifying standards. This advanced Module 2

would need to be offered in conjunction with in-factory trainings, for about 2 months for a matriculated or high school entry-level worker.



METAL PRESSING AND SHAPING

SKILL OVERVIEW

Metal pressing (or stamping) is a process where cold flat sheet metal is put into a stamping press and tool and dye surfaces shape metal. Metal pressing is used in a range of light engineering sectors including fans, bicycles, and motorcycles as well as in the cutlery, surgical and auto sectors. In comparison to metal forging, metal pressing, and shaping is relatively more labor-intensive. Four types of skill are required for metal pressing or cutting including Dye handling, Dye fitting, Dye alignment and Actual pressing or stamping.

Interviews from key stakeholders across a variety of sectors including cutlery, utensils and hunting equipment, surgical, dental, orthopedic,

ophthalmic and veterinary instruments, a dire shortage of the “press man” was indicated. Often foremen were seen to replace workers who perform these tasks. Although in the leading automobile sector firms, some aspects of metal pressing have been semi-automated, such as coil reel unwinding, it is still a highly labour-intensive process in the surgical and cutlery sectors. It appears that press operators are invaluable as they are required at various stages of the production chain. An inexperienced or inadequately trained press operator could make errors in fitting and alignment of dyes/presses, thereby resulting in wastage of sheet metal.

MODULE 0 & 1

Module 1 would cover sheet metal characteristics in a course spanning 1 month. Trainees would be trained on the test methods for formability of sheet metals, impact of thickness and quality of sheet metal on the strength of the finished product as well as safety and efficiency considerations when handling metals and metal sheet cutting

equipment. This training could be delivered at training institutions and would not require factory exposure. As common to other skills trainings the basic module 0 course would also be instructed along with the module 1 under this modular framework.

MODULE 3

Module 2 would be a 3-month course. In the first month, skills used to operate press cutters with appropriate emphasis on proper dye handling, fitting and alignment would be provided. Next, sector-specific skills such as sheet feeding and cutting, thickness control for surgical and knives, forks, spoons cutting for cutlery would be covered. The modality of this training would be a combina-

tion of institute and factory training. In factories, separate work lines could be created for trainees, where trainees may be allowed to practice. Training must be provided in the Golden Triangle area in institutes that have existing experience and were at one time well-reputed as well. Several major training service providers in this geography may be on-boarded for such trainings.

LOCATION

It was found that the Cutlery Training Institute, which has been dysfunctional for the last four years, was quite successful in prior years. An intervention aimed at re-opening the same may also reap rewards for the cutlery sector in particular. Since the equipment is already available there, it would be useful to utilize the infrastructure to deliver trainings.

For surgical goods, trainings are provided by various TSPs in Sialkot (including the Government Apprentices Training Centre) and these may be used to impart both modules as well. There is also a defunct Apprentice Training Center (ATC) which can be revived for surgical goods training in

Sialkot. The advantage of using these existing centers is industry familiarity as well as close proximity to factory areas, which lowers transportation costs for firms to send their workers for off-site training.

Private sector training has also proved successful, along the lines of the Infinity Engineering School, which has run very successful programs in conjunction with PSDF. Given the dire shortage of skilled labour and industry consensus on the urgency of the issue, the Sialkot Chambers of Commerce and Industry could galvanize its members to set up a similar program with PSDF co-funding.



## POLISHING AND GRINDING

### SKILL OVERVIEW

Polishing and grinding skills are observed to be predominantly used in three industries; surgical equipment; cutlery; and sporting goods (to a limited extent). The geographical area is thus limited to two cities i.e. Sialkot and Wazirabad. While there are some key differences between these two activities, Polishing has been observed to be a binding requirement in all three industries. Most of the firms utilize both these techniques at varying degrees, however, larger firms focus almost entirely on managing both activities in-house, whereas the smaller ones outsource a proportion of their grinding and polishing requirements. According to the surveyed firms, small manufacturers were unable to invest in specialized polishing machines owing to an insufficient demand for their respective products (including limited export opportunities) and limited access to formal sector financing and loan

applications. Technology for grinding and polishing operations was also found to vary from a firm to firm basis. However, it appears that there is an industry wide realization of the need to acquire requisite machinery to improve quality and expand production. Polishing and grinding is generally done via three mechanisms:

- On the grinding wheel using roller type machines
- By hand polishing
- Through vibration polishing

All three mechanisms require a different skill set and therefore require different pre-requisite qualifications. Polishing on the grinding wheel is considered a difficult job and requires a minimum of 4 to 6 weeks of training. Trainees are also required to have at least attained their matriculation certificates.

themselves and others from such hazards. This will not only increase worker productivity, but also increase worker longevity and minimize injuries. Moreover, as per the findings from interviews with firms, the module 0 can also include skills such as material handling and waste disposal and management.

Fans, sporting goods, automobiles all require workers with these basic skills and thus it could be offered conjointly with these sectors. The second pre-module 1 would be more on-the-job, such as on the grinding wheel for the first 10 hours and then on hazardous buffs. This is more specific and needs to be done on the machine.

### MODULE 0 & 1

Polishing and grinding are commonly required in the cutlery, surgical, sporting goods industry as well as rice mills. Apart from finger dexterity, the industry requires workers with good health. Analysis reveals that firms also require a module on certain soft skills such as professional conduct, punctuality, and basic communication and team-management skills. On this point, firms indicated a demand for a work-readiness course which would roughly require 30-40 days of training. This module 0 could be combined with training workers about health and safety hazards and focus on instructing the workers to utilize face masks and other safety equipment. The goal of such training would be to help them understand safety and health hazards, and how to protect

### MODULE 2 & 3

Given that the local industry is expected to move towards mechanization, it is recommended that training institutes import electro-polishing and laser cutting equipment and start imparting trainings using this technology. This would help in imparting trainings in accordance with the expected technological changes in the industry,

and therefore meet demand as and when it arises. A Module 3 may be planned for specialized training on new technologies (such as electro-polishing and laser cutting).



## MATERIAL HANDLING

### SKILL OVERVIEW

Material handling is defined as the movement, protection, storage and control of materials and products through manufacturing, warehousing, distribution, consumption and disposal. As a process, material handling incorporates a wide range of manual, semi-automated and automated

equipment and system that support logistics and make the supply chain work. The exact definition and requirements of each of the various sectors may vary. For example, waste disposal may also be considered as a part of material handling.

### MODULE 0 & 1

Module 1 offering basic skills pertaining to the movement, protection, storage and control of materials and products could be offered, in addition to standard Module 0 covering soft skills trainings

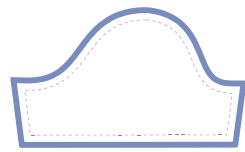
### MODULE 2

In the second part, a practical application of this knowledge in specific industries could be offered which would include industry specific exposure to material handling and management

### MODULE 3

Industries place particular importance on waste disposal, therefore, a separate module on this aspect of material handling could be offered to address the need.





PATTERN MAKING

SKILL OVERVIEW

Patterns are the outlines/templates from which the different parts of a product are copied onto material prior to their cutting and assembly. Pattern makers draft patterns to replicate a design concept for industrial production. This can be done using traditional methods (manual drawings) or using computer-aided design (CAD). For products that are mass produced, such as ready-made garments, patterns are graded for various sizes using CAD.

Pattern making is a cross-cutting skill used in leatherware, sporting goods, and textile made-ups sectors. It is an important part of the production value chain, and skilled pattern makers, or “masters” have years of experience that are difficult to replace. Therefore, there is a strong demand for vocational training in pattern making.

In addition, pattern makers are especially important for production of custom-made products which cannot be mass produced, such as high-end luxury items. Skilled pattern makers allow firms to diversify into value-addition through smaller customized batches of products, which can fetch higher prices. Experienced pattern makers have been observed as being highly paid across

various sectors. This strategy is used for retention of these resources, whose importance to manufacturing concerns in the leatherware, sporting goods and textile made-ups stems from the fact that pattern makers act as a key bridge between the design and production teams.

In footwear sector specifically, firms reported satisfaction with pattern makers that had diplomas on shoe designing and modelling as well as in leather technology. However, while there is high demand for pattern makers that have a sound foundation in material composition, it appears that there are not many pattern makers with this skill set.

Pattern making is also a key skill for firm growth. Not only do skilled pattern makers allow OEM firms to develop the blueprints for industrial manufacturing based on client designs, it allows them to later transition to original design manufacturing (ODM). The firm starts to create its own designs with the assurance that its pattern makers have the technical expertise to transform the design into feasible production. For this, the pattern maker has to be very competent, as any mistakes in the drafting stage could lead to rejection of entire order batches.

MODULE 0 & 1

Following Module 0 for basic soft skills and career path orientation, a Module covering material composition may be offered. According to stakeholders, firms must be involved at the initial/basic training level to impart the requisite skills to aspiring pattern makers. Key skills which will be delivered at this stage would include knowledge of materials and their characteristics

i.e. how it drapes and fits for garments, and how it stretches for leatherware. Moreover, use of multiple materials is becoming common for products such as shoes, bags or garments. Therefore, firms could save valuably if their pattern makers have prior knowledge about drafting patterns for a range of materials, without having to explain about technicalities.

MODULE 2

In Module 2, trainees would get a specialized 3-month course on pattern making terminology and tooling that is sector specific. This would include specialized training for footwear and bags that would teach how patterns are first made, digitized, and then marked on leather through appropriate nester machines. On the other hand, garments, protective, technical and sportswear training could be jointly delivered. Special attention would have to be paid to the latest techniques for pattern making that involve use of CAD/CAM software that is accepted best practice regionally for mass-produced garments.

In both cases, trainees must be exposed to factory settings to supplement and allow application of classroom-based instruction. This Module 2 would also include basic trainings on keeping workstations clean, correct sequencing and labelling of the patterns according to sector. At this stage, it will be equally important to provide further progression counselling to trainees, informing them about how they may transition from pattern maker to designer or even manufacturing manager if they focus more on product construction.

MODULE 2 & 3

The catchment area for this training spans across Lahore, Sheikhupura, Sialkot, Faisalabad, and Gujranwala. It is essential however, that this training be provided with industry attachment as numerous studies have documented that skills

training has had the greatest impact on employment outcomes only where trainees were exposed to in-factory settings.



LEAN MANAGEMENT

SKILL OVERVIEW

Lean management is a management structure that enables each employee to maximize their productivity which would in turn increase the output of the firm and the industry by extension. An important factor which allows lean management to have a continuous flow is its focus towards achieving interruption free operations. For example, in the automobile industry, the overall process may be hindered by sub-factors such as inventory, waiting for raw materials, overproduction, processing delays, a high defect

ratio and even transportation constraints. These are all predominantly down to the skill shortages of employees. Therefore, unskilled or inadequately skilled labour could be a major binding constraint for such firms when they do not appreciate the imperativeness of a systematically flowing process. This is applicable to almost all types of sectors such as fans, automobiles, sports, and garments. Typically, larger firms are impacted more since they have more systematic procedures in place.

MODULE 0 & 1

Module 0 would teach standard practices such as those related to developing a professional attitude towards the workplace, and becoming a productive laborer overall, in addition to standard soft skills. Module 1 would introduce the basic concepts of lean manufacturing and demonstrate the tools and methodologies necessary to implement "lean" on the shop floor by teaching

trainees about wasted productivity in manufacturing. The comprehensive classroom discussion on topics including standard work, visual controls, set-up reduction, batch size reduction, point-of-use storage and quality could perhaps be supplemented with a hands-on simulation of a production facility.

MODULE 2

Module 2 would focus on the advanced lean techniques and would be relevant both for office and manufacturing floor alike. It would train attendees on value-added activities and the need

to eliminate needless tasks, reduce lead times, minimize work in progress, optimize floor space usage, and improve productivity.



MATERIAL MANAGEMENT (CUTTING AND WASTAGE)

SKILL OVERVIEW

Material management seeks to ensure that there is a steady supply of materials for the timely production of goods. It is a scientific skill, concerned with planning, organizing and controlling the flow of materials, from their initial purchase through internal operations to the service point through distribution. It is a key cross-cutting management skill.

Across all shortlisted sectors, a large number of workers have been found to being involved in

operations involving cutting patterns out of sheets of cloth, synthetics, leather, metal or steel. An essential skill for these workers especially in the case of leather is the knowledge on the best parts to cut appropriate components from. Similarly, in the case of metal sheets, the key skill would involve appropriately concealing defects in metal sheets and in the case of garments cutting with a minimum smoothing hand to reduce wastages.

MODULE 0 & 1

A basic 1-month course module for all workers is proposed which would teach trainees to interpret and position patterns/moulds in a manner that maximises efficiency, while maintaining the basic elements of product design/blueprint. At the same time, sufficient application of cutting/positioning techniques would be required. This course could

be offered in a training institute, without any factory attachment, provided that the industry contributes its scrap material for instruction purposes.



STITCHING

SKILL OVERVIEW

Stitching is one of the most important cross-cutting skills used across five of the key export sectors of Pakistan. These include:

- Textile industry (for garments, home linen, and hosiery)
- Sports balls and sports gear industry (for uniforms, scarves, gloves, protective equipment)
- Technical wear industry (for protective and work wear)
- Leatherware industry (for garments, gloves, wallets and bags)
- Footwear industry (for shoe uppers)

Geographically, the market for these skills is spread across Lahore, Sheikhpura, Faisalabad, Sialkot, Multan and Gujranwala. Production within these clusters is specialised,  
- Lahore – Trousers (Esp. Denim), Technical wear, leatherware and footwear

- Faisalabad – Home linen, hosiery and gloves  
- Sialkot and Gujranwala – Protective wear, sports goods, sportswear and leatherware

There is strong evidence for cross-sectoral and unmet demand for stitching machine operators. This is true not only for the sports goods and garments sectors, but also for footwear, where demand for hand sewing of leather uppers is high. Resultingly, industries are required to train inexperienced workers or poach experienced workers by offering higher wages from competitors. Firms are reportedly either providing on-the-job (OTJ) or in-house (in a factory training center). Alternatively, in some firms, new recruits are hired as helpers and shadow experienced workers to learn their trades. Out of all sectors, the garments sector has to outsource their stitching processes to sub-contractors the most.

these contribute to making the finished product. This approach could increase worker ambition to move up the skills chain, instead of focusing on a specific repetitive skill and help firms attract and potentially retain labour. Module 0 could include field visits to nearby industrial plants to give students an idea of working life.

MODULE 0

Module 0 is proposed to be compulsory for all students and could cover occupational safety and health, basic numeracy as well as work ethics, motivation, team-work, and basic communication skills. Additionally, students could also be exposed to the entire production process through specialized software's. This would impress upon the importance of their skills and inputs and how

MODULE 1

Module 1 would be a basic technical module spanning two months. It could take a cross-cluster approach, and offer basic stitching training, both for hand and machine stitching. This course would take place in an institute and provide training in terms of technical stitching skills on paper, material classification and handling, and waste reduction as well. For machine-stitching, other components could be added such as machine

control, machine support and maintenance. Training would allow students to deal with consequences of stitching components out of sequence and how to prevent them according to material type, and to learn the allowed tolerances for different materials. At the same time, it would help workers identify the types of adjustments suitable for specific types of faults and differentiate between correctable and non-correctable faults.

MODULE 2

Module 2 would take a cluster-specific approach and span a period of 3 months. This would allow Module 1 graduates to choose specialized machine or hand stitching, as well as materials (leather, cotton, man-made fibers, terry, latex etc.)

based on their exposure in Module 1. Module 2 would comprise a 1+2 approach. The first month would be spent in the training institute with a focus on practical skills and shall be followed by a 2-month attachment at a manufacturing unit.

MODULE 3

During the first stage at the training institute, workers would be exposed to different fabrics that are commonly part of a single piece. The focus would be on technique, precision, handling material bias, material manipulation and quality control. Stage 2 would involve a two-month attachment and would shift workers willing to

receive OTJ to industrial units/factories. Attachment with firms would have the additional benefits of industry-informed modules, exposure to factory floor, usage of latest technology, and perhaps most importantly, the prospect of job placement of top students.





MACHINE HANDLING

SKILL OVERVIEW

All workers across the eight sectors have been found to have some interface with machinery. For entry-level positions, many people have never worked at a formal organization or a factory before. Most of these workers will be using traditional machines (electric stitching machines, lathe machines, cutting machines), while some could even be given advanced CNC machines,

due to shortage of skilled labor. Hence, it is important for these workers to be given the requisite training for skills including a basic understanding of managing the machine, general guidance on its operations, reading instructions, tooling, cleaning and basic maintenance.

MODULES 0 & 1

These workers need to be given training on operational support and usage of the machine. Along with the standard one-month soft skills course and career path orientation, the Module 0 also cover occupational safety in 7 days. This would train machine workers about electrical and fire safety, use of safety equipment, and dealing with common emergencies and accidents.

A one-month long Module 1 could cover machine maintenance, safety and energy conservation, and most importantly help trainees in identifying the instant where a machine may develop a fault and its immediate remedial action. This would help prevent further damage.

MODULE 2

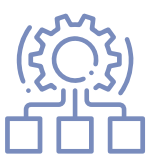
Module 2 could provide more sector-specific training on the specialized machines used in

different sectors such as how to safely operate them and how to troubleshoot simple problems.

MODULES 3

Module 3 could be designed to cater to FSc. / Intermediate graduates, and these would pertain to handling CNC (computerized numerical control) and PLC (programme logical control)

machines. These courses would introduce workers with the requisite aptitude to latest machines and their technologies.



PRODUCTION MANAGEMENT

SKILL OVERVIEW

Production management is defined as planning and control of industrial processes to ensure that they move smoothly at the required level. Primary role of production managers is to ensure that the goods are produced efficiently and that the correct amount is produced at the right cost and level of quality.

Many companies which were visited during the course of this research were found to be involved in several types of production, adding to the complexity of the roles of production managers. In

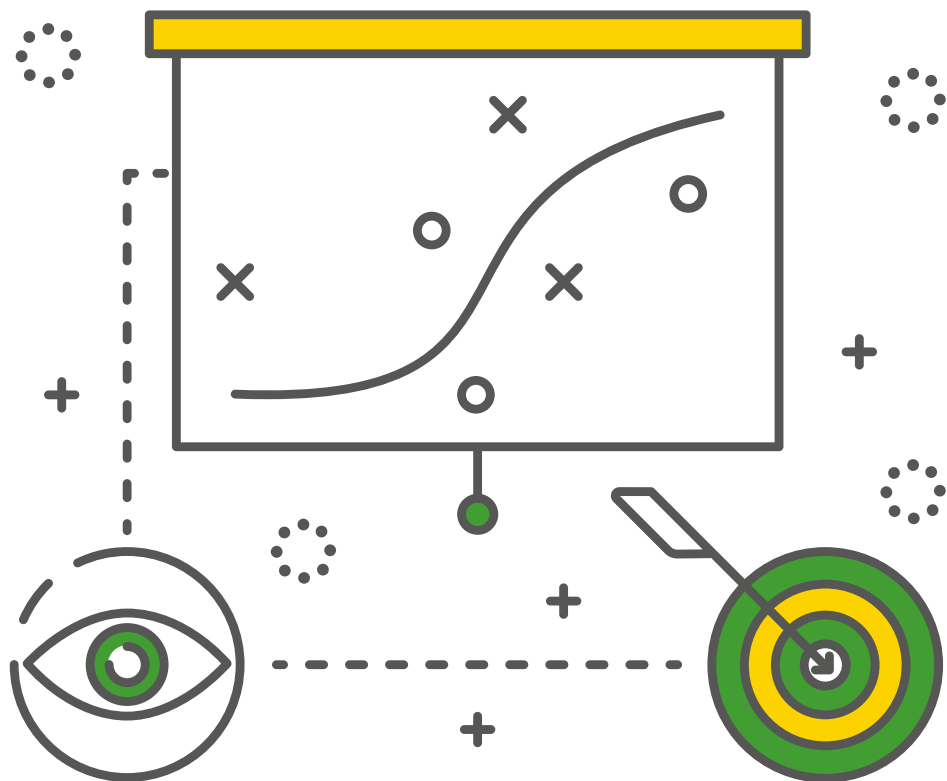
some cases, the production manager was responsible for managing both human and material resources. A production manager may also be involved with product design and purchasing. Most manufacturing companies, regardless of size, have a production manager, though the actual title usually may vary on a firm to firm basis. Sectors which are engaged in mass or batch production such as automobiles, textiles, fan industry, leatherwear, and sports may also require such expertise.

MODULE 0

The module proposed in the industry meetings was one which could be aligned with Module 0 and would include:

- Planning and organization skills to be able to run and monitor the production process,
- ICT literacy to deal with various technologies and programmes,
- Attention to detail to ensure high levels of quality,

- Ability to work under pressure and motivate others to meet deadlines
- Ability to work in a logical, systematic manner.
- Human resource trainings to enable production managers to identify the best possible staff when they are required to do so.



## 05

# CONCLUSION & RECOMMENDATIONS

For an organization like PSDF, which has been set-up as a funding mechanism to improve skills delivery in the province, meeting employment targets set by the provincial government is a challenging task. Whilst its core function of funding skill delivery has been performed well by the organization, the challenge of converting skills funded by the entity into employment opportunities remains an issue for PSDF. In attempts to address this challenge, PSDF has been successful in developing extensive industry partnership programmes. Fieldwork conducted for this study points towards a mixed opinion about the impact of these programs on employment/job creation. First most, it is important to note that the labour endures a lack of information and coordination post-training. High growth sectors such as the seven discussed at length in Section 3, complain about the hardships of finding appropriately trained workers. The large unemployed youth bulge on the other hand complains about non-availability of jobs post completion of education. This lack of information is creating a sub-optimal equilibrium in the skill market. It is here, that PSDF can play an important role of bridging the information gap and concentrate on improving its job placements.

PSDF has yet to explore this area, where, it not only facilitates and funds the process of skill acquisition, but also acts as an employment agency to connect applicants having requisite skills with employers looking for these skills. This additional role of a matchmaker, if played effectively can have a significant impact on the employment outcomes of PSDF and help in meeting the job creation targets set by the provincial government to a degree.

The recommendations made in this Study on programme design takes into account this 'information bridging' function and identifies both short and long-term interventions for PSDF. The recommendations provided are discussed in more detail below. The approach would allow PSDF to:

- Focus on improving productivity skills (including punctuality, adaptability, basic safety, etiquettes of working in mixed gender environment, digital financial literacy and so forth)
- Increase intake of trainees for PSDF
- Improve basic employability skills of trainees
- Develop potential commercial partnerships with the private sector (especially for provision of more advanced/sector specific trainings) and introduce cost efficiencies
- Move towards financial self-sustainability through cost sharing with private sector as well as provision of Blended Finance services

### 5.1 PROPOSED IMMEDIATE MODELS FOR PSDF INTERVENTION

Based on the extensive research, the study makes two primary immediate term recommendations. These include the introduction of a Modular Approach, with the aim to design and implement program delivery. It also recommends a way forward for the delivery of more advanced modules through partnerships with the private sector. A long-term intervention for the PSDF is also suggested that can help PSDF to meet its own targets for skill funding while also capitalizing on the private sector's interest in skill provision as a means to help Pakistan in meeting the 2030 Sustainable Development Goals. These interventions are discussed below.

#### 5.1.1 MODULAR APPROACH TOWARDS PROVISION OF COMMON SKILLS

A 'Modular Approach' has been suggested as a key recommendation of this Common Skills Study. It is a supply side intervention, however, is not defined on a curriculum model. The idea is to build module-based trainings based on thirteen common skills across the eight sectors assessed in Section 3 earlier. The modules would need to be defined by TSPs and include a Module Zero (0) on cross cutting skills. These basic modules would not only introduce trainees to the respective common skills, but because of this cross-cutting nature would also be demanded by both trainees and industry alike. Module 0 trainings are expected to be attended by a large number of trainees, while being offered at a low cost. This Module will put more emphasis on provision of soft skills and more importantly provide information on 'career pathways' that exist beyond the training. The youth inducted in the common skills training programme, must be exposed to and informed about the potential career paths in different industries that are likely to open up for them after

this initial training. The coverage of the program should be such that the trainees should be able to self-select the industry they wish to enter.

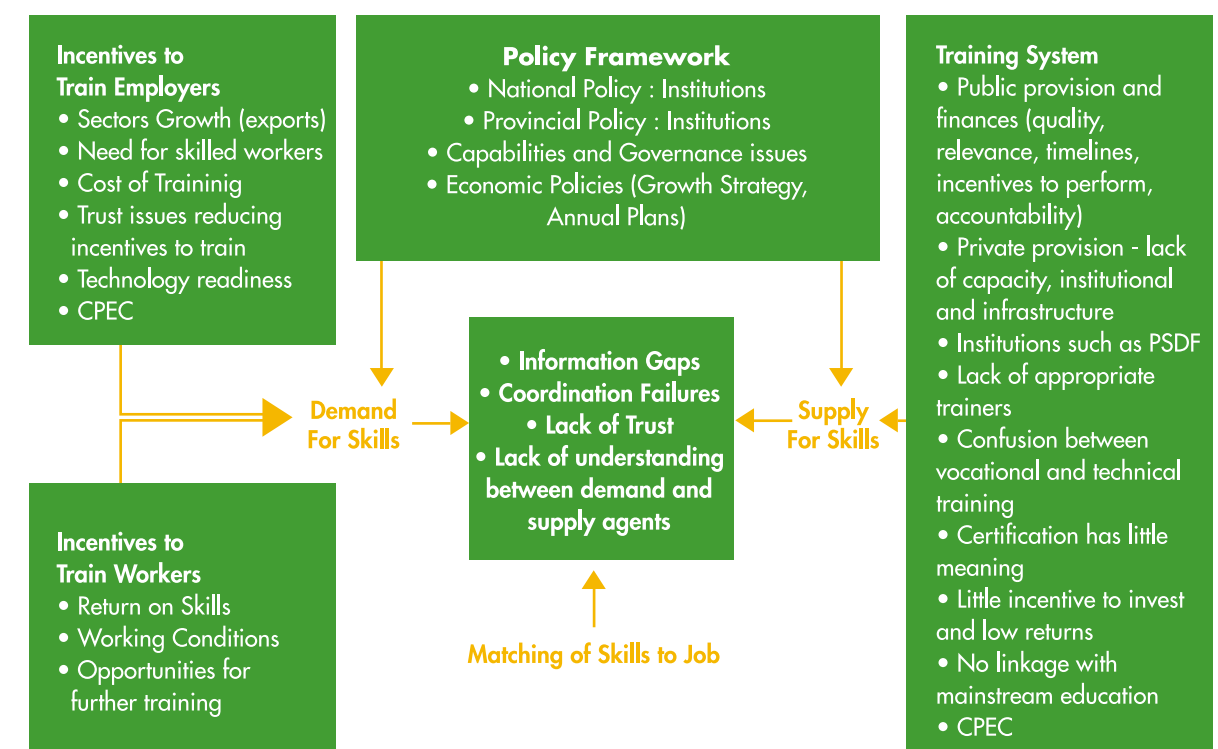
The sector specific modules will then build on that, and potentially attract talent which is more willing (through self-selection) and has a clearer understanding of their personal growth prospects within a specific sector. These sector specific modules would, therefore, be more technical and run for a longer duration.

#### 5.1.2. PARTNERSHIP WITH SECTOR ASSOCIATIONS

For small and medium sized businesses, the PSDF partnership model should focus on working with sector associations to design and deliver the technical/advanced training modules. The industry associations surveyed appear to be actively engaged with the industry at large, and were cognizant of the skill gaps and pain points, and therefore program interventions through partnerships with the same can have positive repercussions not only for PSDF and the industry but importantly the youth at large as well. This approach would help PSDF in improving its program governance, enhance transparency, reduce training costs and offer enhanced accountability for employment of trained resources.

High growth sectors such as the surgical goods industry, where new jobs are being created, issues stem from informational gaps, coordination failures, lack of trust and issues associated with demand supply linkages which are resulting in poor employment outcomes. These sectors are predominantly populated by small and medium sized businesses, and PSDF can intervene in such cases by partnering with industry associations to address these issues and improve outcomes.

The flow chart below, adapted from the World Bank Work Force Development Framework, re-iterates the points made earlier that there is currently a limited role of PSDF in job creation which is dependent upon broader policy focus and the macro-economic environment.







5.1.3  
**PARTNERSHIP WITH A LARGER PLAYER**

The second partnership option is where PSDF partners with one large player in the industry. Under this partnership model, PSDF can initially offer support to train workers for the industry itself. This support should ideally be commercial and/or technical support – however according to the authors a monetary agreement shall be preferred by the respective brands. The brand is expected to offer its trainings commercially on the back of their position and recognition within the industry.

A good example is this case could be a partnership with Atlas Honda Limited. The company is in the process of establishing a state-of-the-art training academy to train motorcycle mechanics. The company's primary motivation behind such an investment is profit. Atlas Honda enjoys the largest market share in the two-wheeler segment of the country (around 60% during FY18 ). The count of two wheelers in Pakistan is around 14.6 million as of FY18 and approximately 5,000 – 6,000 are added on a daily basis. Even at repair and maintenance rate of 5%, some 730,000 motor bikes require servicing. Thus, Honda Atlas is supporting establishment of service centers at all of its dealership stores. This in-turn will require a large number of motor bike mechanics to be trained by Honda to meet the quality and brand standards. PSDF, if it partners with such an initiative, can automatically deliver services that carry the brand name of a big company and ensure employment either within Honda's own dealerships or with other smaller players in the same value chain.

By partnering with a player like Atlas Honda, PSDF too can gain from such an arrangement. By investing in these commercialized trainings (through provision of funding), PSDF can capitalize on the intrinsic demand for such courses. The brand name of Atlas Honda or any large industrial brand allows it to not only charge premiums for provision of trainings but also importantly attract willing or self-motivated trainees. This will help the PSDF's own interventions, which will by extension of such a partnership be cognizant and responsive to the industry needs and also meet the requisite quality targets required by the industry. The PSDF can also gain monetarily by co-sharing proceeds – which may become important as the PSDF is pushed to acquire self-sustainability in its operations. On top of these reasons, such a partnership can also help PSDF in meeting its targets for training of Punjab's youth as well as its employment targets, set under the Punjab Growth Strategy document. In addition to Honda Atlas, Infinity Group, Service / Chawla in footwear, Leatherware in footballs and Sapphire in Textiles all offer similar partnership opportunities

## 5.2

**PROPOSED LONG TERM MODELS FOR PSDF INTERVENTION**

The research conducted clearly indicates the general opinion of the industry that there is a dearth of good quality private sector training institutes in the country such as Aman Tech. This suggests a potential gap in the market, especially when viewed through a longer-term perspective. It is expected that in the longer term PSDF may come under pressure from the Government of Punjab as well as the donor agencies and may be required to move towards financial self-sustainability and independence. Therefore, as a long-term strategy, the PSDF may explore the option of developing value-added services which have the potential to become major sources of revenue and help it in achieving self-sustainable operations.

Large industrial groups in the country (including Sapphire and Nestle) have been observed to be supportive towards helping Pakistan in meeting the United Nations Sustainable Development Goals (SDGs). In fact, many companies have already diverted their CSR funds towards helping Pakistan achieve SDGs. Skills and employment creation and poverty reduction are amongst the key goals of SDGs, and with PSDF being a credible and transparent fund working within the sector, an approach towards establishing blended finance products may be taken. The approach builds upon similar interventions internationally as well as regionally, and quintessentially involve setting up a sector specific development fund. The PSDF in addition to contributing towards seed capital will be the fund manager. PSDF's own

credibility and governance appeal may be leveraged to attract fund contributions from the private sector (mainly large industrial groups). The fund would finance initiatives such as sustainable and high-quality training institutions and address such gaps. These institutes can be set up in areas which exhibit the greatest demand potential and will allow the private sector contributors to take credit for social impact as well. PSDF, on the other hand, would not only generate skilled employment but would also be able to sustain its non-profit operations by charging nominal fees for managing the fund and providing other related value-added services: a win-win situation for all stakeholders.

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