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Employment Generation through Skills Development: Measuring Effectiveness of the Punjab Skills Development Fund in Enhancing Employability

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### Abstract

*Investigates the effectiveness of skills development programs in Pakistan, particularly focusing on the Punjab Skills Development Fund(PSDF). The study assessed programs' impact on employability and identified gaps in the current skills development framework. Present quantitative research found that PSDF programs have successfully enhanced the employability of trainees. Most trainees reported positive outcomes, including securing employment and achieving personal and professional growth. The study identified several critical gaps including the need for standardized curricula, improved training infrastructure, stronger industry linkages, and a more effective coordination mechanism between federal and provincial governments. Additionally, need to address the issue of access and equity, particularly for women and marginalized groups. To fully harness the potential of skills development, it is crucial to address these gaps and implement evidence-based policy reforms. By investing in quality training, strengthening industry partnerships, and promoting innovative approaches, Pakistan can build a skilled workforce that drives economic growth and social development.*

**Keywords:** Skills Development in Punjab, Punjab Skills Development Fund, Technical Education, Employability, Skills Gap, Human Capital Development

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### Title

**Employment Generation through Skills Development: Measuring Effectiveness of the Punjab Skills Development Fund in Enhancing Employability**

#### Abstract

*Investigates the effectiveness of skills development programs in Pakistan, particularly focusing on the Punjab Skills Development Fund (PSDF). The study assessed programs' impact on employability and identified gaps in the current skills development framework. Present quantitative research found that PSDF programs have successfully enhanced the employability of trainees. Most trainees reported positive outcomes, including securing employment and achieving personal and professional growth. The study identified several critical gaps including the need for standardized curricula, improved training infrastructure, stronger industry linkages, and a more effective coordination mechanism between federal and provincial governments. Additionally, need to address the issue of access and equity, particularly for women and marginalized groups. To fully harness the potential of skills development, it is crucial to address these gaps and implement evidence-based policy reforms. By investing in quality training, strengthening industry partnerships, and promoting innovative approaches, Pakistan can build a skilled workforce that drives economic growth and social development.*

**Keywords:** [Skills Development in Punjab](#), [Punjab Skills Development Fund](#), [Technical Education](#), [Employability](#), [Skills Gap](#), [Human Capital Development](#)

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### Introduction

Human resource development plays a vital role in enhancing a country's economic growth potential and productivity. Skills development through technical and vocational training is considered an integral aspect of human resource development (Javied & Hyder, 2009). The accelerated economic growth of Asian countries such as China, Japan, etc., bears an eloquent example of how skills development can be instrumental in increasing personal income and

stimulating the socio-economic development of a country (Shah et al., 2011). Pakistan, with a burgeoning population of over 222.40 million, is also amongst the countries with a large labor force (Pakistan Bureau of Statistics, 2020-21). Results of the Labor Force Survey 2020-21 indicate that the working-age population (age 10 years and above) grew by more than 6 million from 153.50 million in 2018-18 to 159.83 million in 2020-21. Out of the total working-age population, 88.40 million (55.30%) belong to Punjab.



Further, more than 40% of the working-age population is between the age groups of 10-34, which suggests that Pakistan has a significantly huge youth bulge (ibid). Similarly, an alarming unemployment rate of 6.3% was recorded during 2020-21, which implies that more than 4.51 million people from the active labor force remained unemployed during the same period (ibid). Therefore, addressing the unemployment challenge and creating adequate employment opportunities for such an exorbitantly large labor force remains a gargantuan challenge on the policy front for Pakistan in general and Punjab in particular. Hence, the huge youth bulge, coupled with increased unemployment trends, provides an opportunity for policymakers to harness the demographic dividend by investing in the need-based skills development of human capital to produce a skilled workforce capable of enhancing Pakistan's economic potential.

Out of the total working age population (age 10 years and above) of 159.83 million in Pakistan, 88.40 million (55.30%) belong to Punjab (Pakistan Bureau of Statistics, 2020-21). More than 40% of the working-age population (i.e., 69.9 million) is between the age groups of 10-34, which suggests that Pakistan has a significantly huge youth bulge (ibid), which would double in the next three decades (MoFEPT, 2018; Jabeen, Ali, & Ahmad, 2023). Further, approximately 6.22 million youth (1.82 million from formal schooling and 4.40 million not captured in formal schooling) enter the labor market each year. This large youth, nevertheless, needs to be trained and skilled to harness the potential of its demographic dividend to meet the needs of domestic and international markets and to achieve increased economic productivity and foreign remittances (Haider, Ahmad, & Ali, 2024).

This research is of immense importance because Pakistan has not been able to satisfactorily harness the potential of its demographic dividend through adequate investment in human capital to produce a skilled workforce capable of enhancing Pakistan's economic potential. The scope of this research will cover the following areas:

1. Analyze the existing skills development institutional and policy framework in Pakistan, particularly Punjab.
2. Examine the effectiveness of skills development through the Punjab Skills Development Fund (PSDF) in enhancing the employability of its trainees
3. Identify gaps in skills development and how these gaps can be plugged to improve the quality of skills development.

## Research Questions

The study includes the following research questions:

1. How effectively are skills development institutions able to increase the employability of their trainees?
2. What are the gaps in effective skills development for the potentially employable, and how can these gaps be plugged?

## Review of the Literature

There is no dearth of literature on skills development for employability. Maclean et al. (2012), in their research on skill development for employability, underpin the importance of vocational and technical skills, as compared to the general academic knowledge, and maintain that prodigious evidence suggests that skills development and technical education can significantly stimulate productivity and economic development of a country. It can also promote sustainable poverty alleviation through enhanced chances of employability, which is not unexpected as most industrial occupations require the application of technical and vocational skills. In this regard, the World Bank (2010) contends that skills lie at the core of improving individuals' employment outcomes and increasing countries' productivity and economic growth.

Hampf et al., 2017 in their research on the estimation of returns to skills, conclude that skills are highly rewarded in knowledge-based economies besides creating a positive impact on an individual's success in the labor market as well as their general well-being. The study also finds that returns to skills are economically and statistically significant in the shape of increased wages and enhanced chances for employability. More importantly, the study emphasizes the importance of skill-based education for the innovative capacity of the economy and its ability to compete in the globalized world. Further, investment in skill development is not free of criticism as it requires an extensive investment of public funds in the development of curriculum, equipment, theoretical and practical aspects of the training, including equipment, teachers' training, inter alia, which may incur cost three times more than general education. In this regard, they maintain that industry linkages and post-training employability in the relevant industry are crucial to the success of skill development and technical/vocational education (Khosro, Oad, & Ahmad, 2023; Dilshad, Shah, & Ahmad, 2023).

Furthermore, Powell & Lindsay, 2010 emphasize the essential role of government in policy planning and

implementation of skills development, as the industry cannot on its own be expected to timely coordinate with the training institutions for the provision of the requisite trained human resources (Ali et al., 2023). It is, therefore, the responsibility of the government to anticipate what skills are going to be in demand in the labor market. This forward-looking approach through adequate policy response/intervention by the government is termed crucial for growth sectors in the short-term, medium-term, and long-term, encompassing aligned with the socioeconomic development of the country (Ahmed, 2022).

Shah et al. (2017) analyze the overall landscape of technical and vocational education in Pakistan. It is maintained that Pakistan is amongst the countries with a large labor force and has the potential to the demographic dividend. It is further maintained that skills-gap, mainly due to the widespread perception that technical education is inferior to general academic education, are significantly contributing to the limited investment in the skills development and technical education sector, thereby creating a shortage of skilled labor force and giving rise to the increased unemployment trends in different economic sectors.

### Methodology

This research uses a quantitative research method to address the above-said research questions. Primary data was collected from a randomly selected small sample of 300 trainees/beneficiaries of PSDF using Google Forms. For the survey, a questionnaire encompassing questions on the effectiveness of training, acceptance by employers, responsiveness to industry, quality of teaching covering both theory and practical aspects, industry linkages, availability of skills-related facilities/training infrastructure, etc., was developed, and responses of trainees were sought. However, only two hundred and forty-four (244) trainees/beneficiaries filled out the Google Form, and their responses were analyzed using MS Excel. A quantitative analysis of the secondary data available in the PSDF's Mid Term Tracer Study Report, 2020 by the World Bank, was also carried out to further validate and reinforce the results of the above-said survey. This Tracer Study is based on interviews with a larger sample size of 1023 graduates, 37 training service providers (TSPs), and 29 employers. Gap Analysis of this research is based on the synthesis of results of this research as well as findings of the Tracer Study.

### Definition of Skills Development

Skills development is a continuous process of

identifying the skills gap and then honing/developing these skills. It results in the acquisition of core competencies in a specialized field (Kemal, 2005). There are three types of skills development: (i) creative and cognitive skills, (ii) personal and social skills, (iii) vocational and job skills.

### Importance of Human Capital and Skills Development

Skills development of the human capital has an important bearing on the economic productivity and growth of a country (Kemal, 2005). The Endogenous Theory of economic growth places human capital at the core of the economic growth process (Romer, 1990). While Pakistan currently ranks 161<sup>st</sup> among 189 countries on the United Nation's Human Development Index (HDI) (UNDP, 2022), skills development remains one of the most neglected sectors as Pakistan has not been able to improve the vocational/job-related skills, which has resulted in the widening of skills-gap, limited availability of skilled workforce, and consequent loss of productivity and burgeoning unemployment rate, inter alia (Atta-ur-Rahman et al., 2005). On the other hand, countries with skilled human capital are adapting more efficiently to the local and international markets besides reaping the benefits of job creation, poverty alleviation, and improved socio-economic conditions (Shabbir et al., 2018; Booth & Dennis, 1996).

### Institutional and Policy Framework of Skills Development

Education is a provincial subject; however, skills development through technical and vocational training is essentially a Federal subject under Article 37(c) & (f) and Entry 16 of Part I of the Federal Legislative List. Ministry of Federal Education and Professional Training (MoFEPT) was established in 2011 after the 18th Amendment (MoFEPT, 2022). Further, there is National Vocational & Technical Training Commission (NAVTEC) under the MoFEPT. Punjab Skills Development Authority (PSDA) was established under the PSDA Act 2019 with the mandate to act as a regulator in the Skills Development Sector of Punjab as well as ensuring the implementation of national standards and policies concerning technical and vocational education and training, inter alia (PSDA, 2022). Further, the landscape of skills development in Punjab comprises 350 technical institutes run by Punjab-TEVTA under the Punjab Vocational and Technical Council (PVTC) and private sector institutes (P&D Board, 2022). On the certification and examination side, there is a Trade Testing Board (TTB) and Punjab Board of Technical

Education (PBTE). To enhance the spectrum of skills development of the province, and manage the skills delivery, and address the failures of Punjab-TEVTA through innovative partnership, the Government of the Punjab has established the Punjab Skills Development Fund (PSDF) in collaboration with the FCDO (ibid).

In the sphere of policy, Pakistan has a TVET Policy titled “Skills for Growth & Development – A Technical and Vocational Education and Training (TVET) Policy for Pakistan 2015” and a National Skills Strategy titled “National Skills for All Strategy, a Roadmap for Skills Development in Pakistan 2018.”

The first pillar of Vision 2025, i.e., ‘Putting People First,’ attaches the utmost importance to human capital development. The TVET Policy 2015, in line with Vision 2025, clearly spells out its objectives of achieving sustained economic growth through skills development by forging a partnership between the public and private sectors, increasing the number and quality of training opportunities, introducing national standardized qualification/training, inter alia, to make the country economically competitive domestically and internationally. The TVET Policy envisages an integrated national TVET system stipulating the roles of the Federal Government (standards and quality assurance) and provincial governments (implementation and management component), a national qualification, assessment, and certification system; and partnership with the private sector to develop skills of its human capital through the introduction of legislation for Pakistan Skills Partnership. However, important aspects of funding and finance have been left to the Pakistan Skills Partnership, which will prepare funding options. Besides, the policy also stipulates that the

Government will hypothecate the TVET Budget as well as establish the National Skills Fund.

On the other hand, “National Skills for All Strategy, a Roadmap for Skills Development in Pakistan 2018” envisages an Action Plan, which includes eight key areas such as improving TVET governance and funding, enhancing TVET capacity, improving quality, access, and equity, increasing industry ownership, enhancing workforce export, etc. The main emphasis of the Action Plan is on “what is to be done.” however, the most crucial aspect is how to achieve these actionable items without any time frame and assigning the explicit item-wise responsibility of the relevant government/institution. Further, the Action Plan is also devoid of any enforceability mechanism, which makes this Action Plan nothing but a wish list.

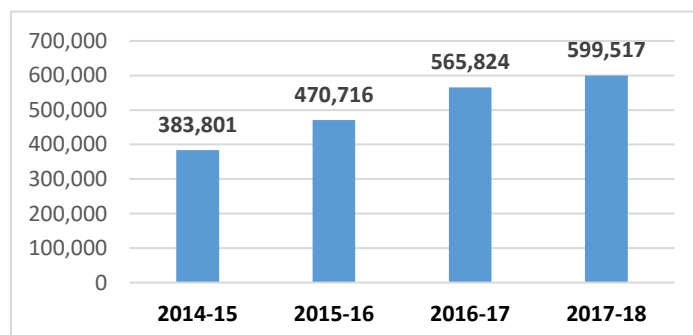
### Skills Development under the Punjab Growth Strategy (PGS)-2018 and PGS-2023

PGS 2023 is heavily dependent on improving human capital and recognizes the role of human capital development in economic growth and employment. Therefore, skilling the youth of Punjab remains the cornerstone of this growth strategy wherein the government has set an ambitious target of training 2.50 million graduates during the gestation period of the PGS with the following trajectory: (i) 0.45 million during 2018-19, (ii) 0.45 million during 2019-20, (iii) 0.50 million during 2020-21, (iv) 0.55 million during 2021-22, and (v) 0.55 million during 2022-23.

For this purpose, the PGS stipulates that the government has made significant investments in the skills development sector and has been able to achieve the target of 2.02 million skilled graduates under the earlier PGS 2018, as shown in Figure 1.

**Figure-1**

*No. of Graduates Skilled; Source: PGS 2023*



Out of the 2.02 million training, 1.50 million training were imparted by the Technical and Vocational Training Institutes such as P-TEVTA, PVTC, PSDF, etc.,

as shown in Figure 2. The remaining trainings of approximately 0.52 million were delivered by sectoral

departments such as health, social welfare, agriculture, higher education, etc.

**Figure-2**

No. of Graduates Skilled (2014-18); Source: PGS 2023

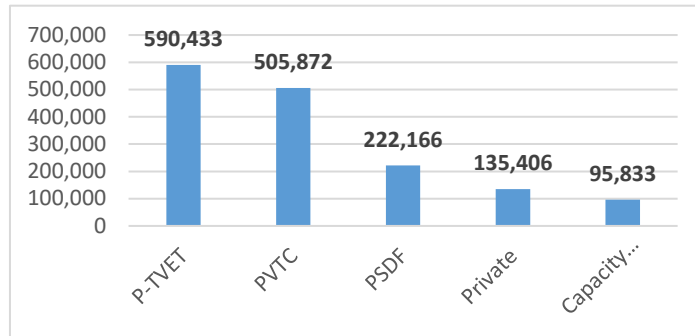
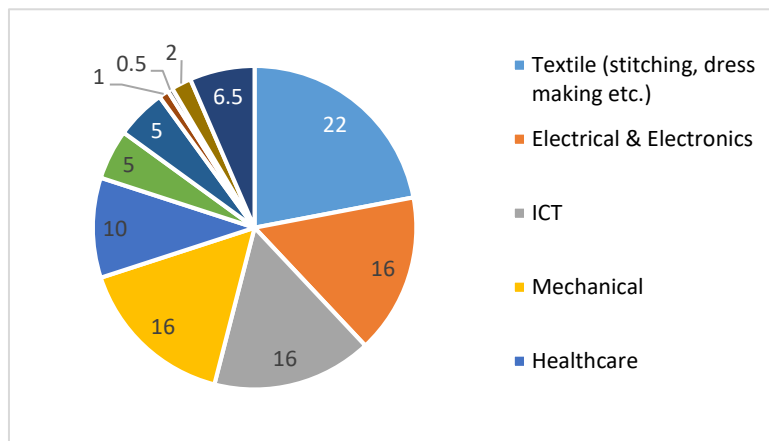


Figure 3 shows the spread of training provided by the Punjab-TEVTA. Out of the total training of 0.590 million, 22% of training was provided under Textile related trades, while Electrical (16%), Mechanical

(16%), Information & Communication Technology (16%), and healthcare (10%) were other major areas of training.

**Figure-3**

Sectoral Spread of Trainings (%); Source: PGS 2023



**Punjab Skills Development Fund (PSDF):**

**An Overview**

PSDF is the largest skills development fund in Pakistan, and it was set up in 2010 by the Government of Punjab in collaboration with the Foreign, Commonwealth, and Development Office (FCDO) as a not-for-profit public sector company under the Companies Ordinance 1984 (PSDF, 2022). It also manages the skills training funding provided by the World Bank, GIZ-Germany, and UNICEF. Over the past twelve years, it has funded training for over 500,000 youth in 250 plus demand-driven trades through an ecosystem of 500+ training service providers, primarily from the industry and private sector (ibid).

**PSDF's Operating Model**

Since its establishment in 2010, PSDF has been providing skills development-related training in a diverse range of trades through public, private, and not-for-profit organizations across the province. The operating model of PSDF consists of (i) trade identification in selected areas based on research and market response, (ii) a competitive and transparent process for selection of the most suitable Training Service Providers (TSPs), (iii) output and result-based completion/reward system and income generation outcomes, (iv) third-party monitoring to ensure quality and transparency of training, and (v) placement service for skilled graduates to ensure their employability.

PSDF obligates the TSPs to ensure that trainees are imparted market/industry-related core skills to



enhance the chances of their employability for increased personal income and economic growth of the country. Further, TSPs are also responsible for the placement of their graduates in relevant industries, as stated above.

### Training Ecosystem of PSDP

According to the PSDF (2022), it has imparted training to more than 0.50 million trainees, 43% of whom are females, in more than 250 trades through 500 plus TSPs – more than 90% of whom are from the private sector. It also claims that 67% of the trainees/graduates are engaged in income generation of more than Rs.21 billion. Besides, it has provided training across 2500 plus locations covering both rural and urban areas. It also claims that it has trained more than 190 trades out of the total 250 in the market-related trades. Moreover, this initiative has created more than 4000 jobs in the TSP network.

### Results and Discussion:

#### Participants of the Study and Research Instrument

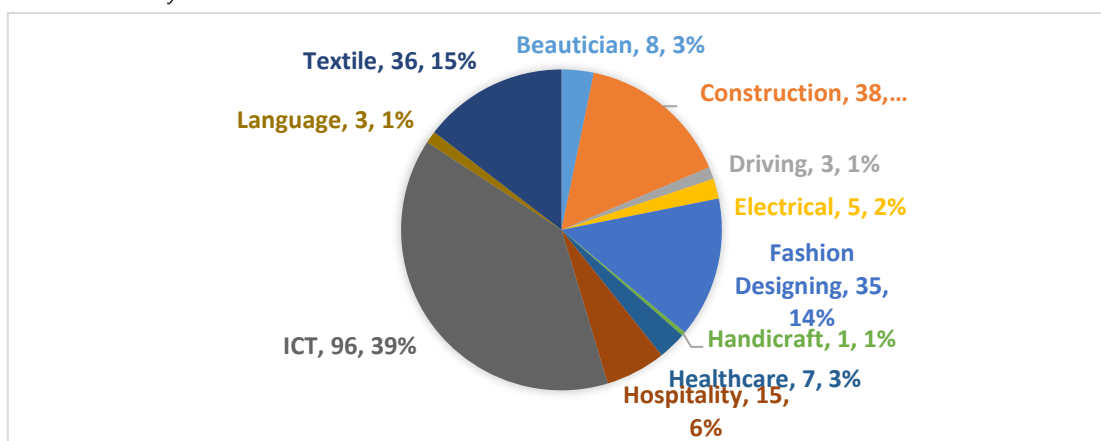
To examine the effectiveness of the skills development programs and to identify gaps in skills

development, a random sample of 300 trainees was selected, and an online survey questionnaire was developed through Google Forms. Subsequently, responses from all 300 trainees were solicited; however, 244 filled out the Google Form. To ascertain the effectiveness of skills development in enhancing employability, trainees were asked questions concerning their post-training employment status, quality of training covering both theoretical and practical aspects, quality of training-related facilities such as teachers, lab and equipment, building, furniture, training material etc., and questions on effectiveness of training encompassing whether the training meets the employer/industry needs, whether the training meets trainee’s expectations, institute-industry linkages, and whether the training institute helped the trainee in finding the job, or otherwise.

A quantitative analysis of the secondary data available in the PSDF’s Mid Term Tracer Study Report 2020 was carried out to further validate and reinforce the results of the above-said survey. To determine the post-training employment status, satisfaction level, and other aspects of the training, the Tracer Study was conducted through a large sample of 1023 trainees.

**Figure 4**

*Trade-wise Analysis of 244 Trainees*



Out of the total 244 trainees who responded to the survey, 147 (60.2%) were male, and 97 (39.8%) were female. While the Tracer Study fetched responses from 834 male (82%) and 189 female (18%) trainees of PSDF. Similarly, 96 (39%) trainees received training in ICT, while Civil/Construction (38, 15%), Textile (36, 15%), and Fashion Designing (35, 14%) were among the leading trades/fields, as shown in Figure-4.

### Effectiveness of Skill Development Programs for Employment Generation

To assess the effectiveness of training, trainees were

asked questions related to their Post Training Employment Status, Quality of Training, Quality of Training related Facilities, and Effectiveness of Training. The results are discussed as under: -

### Post Training Employment Status

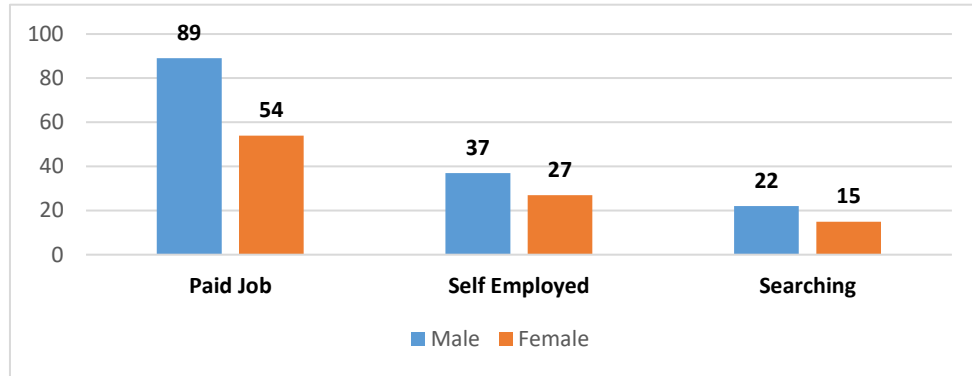
Figure 5 shows that upon graduation, 85% of males and 84% of females were able to either get a paid job or get self-employed. Further, the results in Table-1 show that upon graduation/completion of the training, approximately 84% of the trainees, both male, and

female, were able to find a job, i.e., 59% (143) got a 'Paid Job' and 25% (62) got 'Self-Employed,' and remaining 16% (39) were 'Searching for a Job.'

**Table 1**  
*Post Training Employment Status*

Status	No. of Trainees
Self Employed	62
Paid Job	143
Searching for a Job	39

**Figure 5**  
*Gender-wise Post-Training Employment Status*



**Quality of Theoretical and Practical Aspects of Training**

Regarding the quality of theoretical and practical aspects of the training, 91% (221) of the trainees rated

the Theoretical content of the training as Good, and 9% (23) as Average. While 98% (238) trainees believed that the Practical was Good, about 2% (6) was Average.

**Table 2**  
*Quality of Theoretical & Practical Aspects of Training*

Factor	Poor	Average	Good
Theory	0	23	221
Practical	0	6	238

**Quality of Training-related Facilities**

As shown in Table 3 below, 96% (234) of the trainees rated the 'Quality of Teachers' as Good and 6% (10) as Average. While 84% (205) rated the 'Condition of Building' as Good, 15% (36) as Average, and 1% as Poor. Similarly, 84% (204) trainees rated the quality of furniture as Good, 15% (37) as Average, and 1% (3) as Average. 88% (216) trainees thought that the quality of

Lab/Equipment was Good, 10% (24) as Average, and approximately 2% (4) as Poor. Also, 62% (152) of trainees felt that the quality of the library was Good, 34% (84) was Average, and 3% (8) was Poor. While 93% of trainees evaluated the quality of 'Training Material' as Good, 6% (14) as Average, and 1% (2) as Poor. More than 85% of the trainees rated the training-related facilities as 'Good.'

**Table 3**  
*Quality of Training-related Facilities*

Factor	Poor	Average	Good
Quality of Teachers/Instructors	0	10	234
Condition of Building	2	37	205
Furniture	3	37	204

Factor	Poor	Average	Good
Lab/Equipment	4	24	216
Library	8	84	152
Training Material	2	14	228

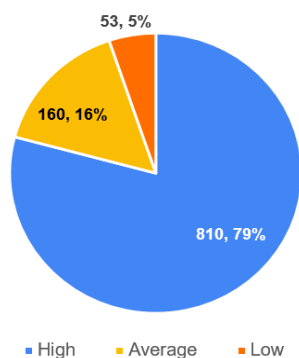
Similarly, results of the Tracer Study in Figure-6 show that 79% (810) graduates/trainees were highly satisfied with the quality of instructors, 16% (160) expressed their average satisfaction, and merely 5% (53) rated their satisfaction as low, which is almost same as the 96% satisfaction rate of trainees/graduates found in this research.

Likewise, the results of the Tracer Study also validate the results/findings of this research.

According to the Tracer Study, 68% (697) out of 1023 graduates rated the training-related facilities as 'High' and 25% (255) rated as 'Average' while 7% (71) rated as 'Low,' as shown in Figure-7. The results of this research and the findings of the Tracer Study establish the fact that the TSPs provide a good platform for trainees to acquire market-driven skills. However, the results of both studies cannot be generalized, keeping in view the small sample sizes, particularly of this research, and other limitations.

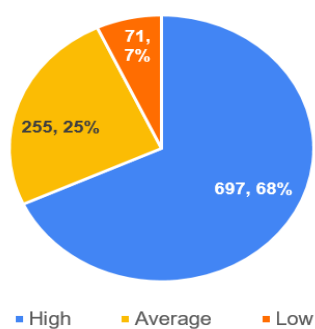
**Figure 6**

*Satisfaction Level with Quality of Teachers*



**Figure 7**

*Satisfaction Level with Quality of Training Facilities*



### The Overall Effectiveness of the Training for Employment Generation

**Table 4**

*Effectiveness of the Training for Employment Generation*

Question	Options	
	Yes	No
Does training meet the requirements of the employer?	227	17
Does the training meet your expectations?	224	20
Does the institute have industry linkages?	216	28

Question	Options	
	Yes	No
Did your training institute help you find the job?	211	33

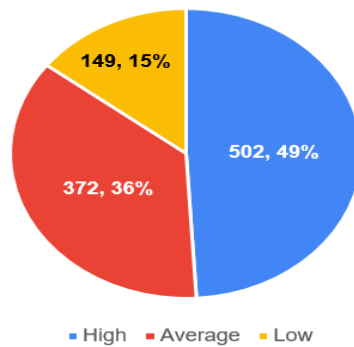
Table 4 shows that 227 (93%) trainees evaluated their training met the requirements of their employer, while almost a similar number of trainees, i.e., 224 (92%), also confirmed that the training met the expectations. Likewise, 216 (89%) trainees confirmed that their training institute (TSP) had industry linkages, and almost the same number of trainees, i.e., 211 (86%), confirmed that their training institute helped them find a job. The overall satisfaction rate of trainees concerning the effectiveness of skills development for

employment generation was found to be 90%, which is significantly high.

Similarly, the findings of the Tracer Study also reflect that a total of 85% (502+372=874) trainees indicated that the skills taught in PSDF courses were relevant to their work, which they found upon their graduation, while 15% (149) of the graduates stated that the employer/industry required a different skill set than what they were taught in the PSDF courses, as shown in Figure-8 below.

**Figure 8**

*Level of Satisfaction with Market Relevance of Training*



**Gap Analysis**

Based on the results of this research, as well as the Tracer Study conducted by the World Bank, the following gaps/issues have been identified:

1. Multiple Curricula: The findings of the Tracer Study show that most of the TSPs are following more than one curriculum. For instance, 86% of the TSPs are using P-TEVTA curricula for training, while 32% are using NAVTTC syllabi. Similarly, 62% of TSPs were found following the single curriculum of either P-TEVTA or NAVTTC, whereas 32 TSPs followed both. Similarly, 54% of the TSPs were of the view that the curriculum followed by them for skills development was coterminous with the needs of the industry; however, 46% were of the view that their curriculum was catering to the needs of the industry, and more importantly, 88% of the TSPs believe that the curriculum is rather outdated.
2. Multiple degree awarding/examination bodies: The Tracer Study also finds that 95% of the TSPs were affiliated with PBTE, while the remaining TSPs were affiliated with other examination bodies. 84% of the TSPs surveyed under the Tracer Study had an affiliation with only one

- degree awarding/examination body. The study further revealed that the examination is not monitored and not in line with the world's best practices, which creates impediments in the worldwide recognition of skills development courses.
3. Training quality, including quality of instructors: the Tracer Study identifies 43% of TSPs who engaged trained instructors while 38% of TSPs preferred hiring instructors with relevant industrial experience, which signifies the important role of a well-trained instructor in imparting modern skills with an industrial focus and employer needs. There is, however, no single yardstick and standardized criteria for hiring trained faculty across the province or the country.
4. Inadequate Industrial linkages and Post training placement of the trainees: Skills development enhances the chances of employability. However, TSPs with industry linkages play a crucial role in the placement of their training. The Tracer Studies show that 81% of the surveyed TSPs used a referral system for placement of their trainees in the industry

through arranging interviews. However, around 59% of TSPs employed both referrals as well as arranging interviews with employers. The employment rate of graduates of TSPs who used either of the two methods or both was found to be higher than those graduates who had to seek employment on their own. The results of the Tracer Study suggest that placement of graduates through the placement method increased from 50% in 2016 to 61% in 2019. Therefore, industry linkages need to be assigned utmost importance besides focusing on the quality of skills development.

5. **Poor quality of training-related facilities:** Around 85% rated the training-related infrastructure of TSPs as 'Good' and 15% as 'Average' or 'Poor.' In some cases, the trainees/graduates have given remarks on the training facilities, which include lab/equipment, learning material, library, furniture, etc., which suggests the absence of a robust quality assurance mechanism.
6. **Multiple skills development institutions:** Besides PSDF, PVTC, P-TEVTA and recently established PSDA and other institutions are involved in skills development and making parallel efforts in a disintegrated manner without any coordination, which leads to a waste of both time and public money, and that too without any favorable outcomes.
7. **Capacity Limitations of PSDF:** PSDF is primarily executing skills development programs funded by foreign development partners such as DFID/FCDO UK, the World Bank, etc. It is also executing a couple of PSDP-funded projects through TSPs. However, the share of PSDF in the total number of both trained and to-be-trained labor force is quite low. Therefore, given the skills development target of 5 million (without any trade-wise details of training as to how much human resources are to be trained in one trade) under the National Skills for All Strategy, the existing capacity of PSDF as well as other TVET institutes is very limited and cannot achieve this target.
8. **Issues of Access and Equity:** Women's participation in the labor force is very low (approximately 24%) (MoFEPT, 2018) as compared to other regional countries, such as 38% of Bangladesh (IGC, 2022). The NSS envisaged that the share of female trainees in skills development institutions would be enhanced from 10% to 30% by 2023 without elaborating 'how to achieve this ambitious target' and without obligating any specific role

and yearly targets for each province or the Federal Government.

9. **Lack of Ownership by the Industry:** The NSS stipulates that the Apprenticeship Act 2018 would be immediately adopted and implemented to increase the ownership of trainees by the local industry to propel industrial activity/efficiency and economic growth like the UK, Germany, and other developed countries. However, no such ownership of the TVET sector can be seen.
10. **Inadequate Skills Development for International Market, particularly Freelancing:** Though Pakistan is amongst the growing freelance markets in the world, its share in the global market is still negligible as it is contributing \$1.4 trillion to the US economy as compared to \$0.5 billion a year (DigiSkills, 2022; Naeem, Ali, & Ahmed, 2022). Similarly, countries such as Canada, Australia, and the UK, particularly in the wake of BREXIT, Germany, etc., are looking for skilled human resources. However, Pakistan has been unable to produce a sufficient skilled workforce to both meet the needs of its domestic industry as well as to export the same to the world. On the other hand, India (\$83 billion), China (\$59.5 billion), and Mexico (\$42.9 billion) are amongst the largest recipient of foreign remittances. (Statista, 2022).
11. **Absence of an Effective Coordination Mechanism between the Federal Government and Provinces regarding Skills Development:** Skills Development is a federal subject under the Constitution of Pakistan 1973. Both the TVET Policy and NSS lack an effective coordination mechanism on how to achieve the objectives of the TVET Policy as well as how to implement the provisions of the Action Plan envisaged under the NSS.
12. **Failure to Anticipate Global Technology Trends and Skills Requirements:** The global industry continues to witness unprecedented technological developments in the fields of ICT, Artificial Intelligence, and Machine Learning. Unlike the technologically advanced countries, Pakistan has been unable to anticipate the local as well as global industrial demand for skilled human resources and accordingly tailor its skills development regime quite effectively.

## Conclusion

The results of this research and findings of the Tracer Study conducted by the World Bank suggest that despite various gaps and challenges, PSDF is an

effective model of skills development for enhancing the employability of its trainees. It can also potentially improve the landscape of skills development and can also bridge the skills gap to meet the needs of domestic and foreign industries. However, the ultimate success of this model and future discourse of the skills development sector for employment generation, inter alia, would depend on bridging the gaps as discussed in the preceding section under 'Gaps Analysis.' To this effect, pragmatic recommendations have been made in the following section.

### Recommendations

1. Professional and technical education is a federal subject under the Constitution of Pakistan 1973. Given the widening skills gap and increased unemployment rate in Pakistan, it is high time to address the issues concerning the lack of effective coordination and the role of federating units in the skills development sector to achieve the objectives of the TVET Policy as well as how to implement the provisions of the Action Plan envisaged under the NSS. In this regard, it is proposed that technical and vocational education subjects may be transferred to the provinces. However, the role of the Federal Government may be retained to the extent of coordination with the local and international industry/market in planning and standard setting of skill development courses/trades as per the demand of local and foreign industries and making necessary arrangements in coordination with the provincial governments.
2. There should be one institution in each province vested with the responsibility of skills development instead of multiple institutions, including authorities and public sector companies, to avoid overlapping functions and to save precious resources, inter alia.
3. Industry linkages need to be enhanced through the active role of both the Federal Government and Provinces, and accordingly, arrangements be made to impart training in trades demanded by the local and foreign market/industry. The provisions of the Apprenticeship Act 2018 may also be implemented.
4. The Federal Government needs to forge partnerships with foreign countries, such as the UK, Canada, the US, Japan, etc., for the export of skilled human resources. In this regard, the Federal Government may design courses/training in consultation with foreign countries and get the domestic training/professional courses accredited by the international testing/examination bodies to enhance the acceptance of professional training/courses imparted in Pakistan.
5. The curriculum of various professional courses should be designed in line with the modern needs of local and foreign markets/industries, and the same should be updated through a regular review to keep the skills development regime of Pakistan relevant to the emerging needs of the industry. Further, all TSPs, both public and private, need to follow a standard curriculum to ensure effectiveness and relevancy.
6. Moreover, there needs to be a single testing/examination body instead of multiple institutions/boards to standardize the testing/examination regime in Pakistan in line with the best practices to increase the global acceptability of our professional training/courses.
7. A stringent monitoring and evaluation mechanism needs to be put into place to ensure the quality of professional training imparted by the TSPs. Services of those TSPs, public or private, who fulfill the minimum quality standards encompassing teaching and training-related facilities/infrastructure may be procured.
8. Focus should be made on gradually increasing the participation of females in the workforce by incentivizing skills development. In this regard, the Provincial Government may introduce a decent stipend/scholarship exclusively for females besides the provision of free-of-cost training to encourage their participation.

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