

# Empowering Women Through Technical and Vocational Education and Training (TVET) Programs a Study of Gender Equality in Rural Pakistan

Abid Ullah<sup>1\*</sup> and Hamid Ullah<sup>2</sup>

<sup>1</sup>Department of Economics, Quaid E Azam University Islamabad.

<sup>2</sup>Lyallpur Business School, Government College University, Faisalabad, Pakistan.

**Corresponding Author:** Abid Ullah, Department of Economics, Quaid E Azam University Islamabad.

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## Abstract

*This empirical study examines the role of Technical and Vocational Education and Training (TVET) programs in advancing gender equality and empowering women and girls in rural Pakistan. In a context where patriarchal norms, limited educational access, and socio-economic barriers restrict women's labor market participation, TVET serves as a vital tool for economic independence and social inclusion. Using a mixed-methods approach—including surveys, interviews, and focus group discussions with women, community leaders, and TVET facilitators—the study explores the impact of vocational training on women's empowerment. It investigates how TVET influences women's economic outcomes, social status, and challenges traditional gender roles. The research also identifies key barriers to participation, such as limited mobility, cultural constraints, and a lack of awareness, and proposes policy recommendations to enhance accessibility and effectiveness. The findings suggest that while TVET programs significantly contribute to women's economic independence and employment, broader societal and cultural support is essential for sustainable empowerment. This study underscores the need for gender-sensitive TVET policies, improved infrastructure, and community engagement to unlock the full potential of vocational training in promoting gender equality in rural Pakistan.*

**Keywords:** TVET (Technical and Vocational Education and Training), Gender Equality, Women's Empowerment and Rural Women, Economic Independence, Social Mobility, Barriers to Education, Vocational Training, Pakistan, Socio-cultural Barriers, Gender Norms, Unemployment, Underemployment, Gender Role

## 1. Introduction

Gender inequality remains a pervasive issue in many developing countries, and Pakistan is no exception, particularly in its rural regions. In these areas, women face a combination of socio-cultural, economic, and institutional barriers that limit their access to education, employment, and decision-making opportunities. Patriarchal norms, traditional gender roles, and limited mobility often restrict women's participation in the labor market, perpetuating cycles of poverty and dependency. Despite these challenges, the potential for women's empowerment in rural Pakistan has garnered attention, and Technical and Vocational Education and Training (TVET) has emerged as a critical tool in addressing gender disparities and advancing social inclusion.

TVET programs are designed to equip individuals with practical skills that match the demands of the labor market, making them an effective means of promoting economic independence. For women in rural Pakistan, who often face significant barriers to formal education, vocational training provides an alternative pathway to economic self-sufficiency. By offering specialized skills training in areas such as tailoring, handicrafts, beauty services, and even non-

traditional fields like carpentry or plumbing, TVET programs can help women enter the workforce and challenge gendered norms that restrict their professional opportunities.

However, despite the potential of TVET to empower women and contribute to gender equality, its impact on rural women in Pakistan remains underexplored. While TVET has been shown to improve women's economic outcomes in many contexts, rural women often face unique challenges in accessing these programs. Barriers such as limited awareness, financial constraints, cultural resistance, and logistical issues, such as transportation, often prevent women from fully participating in vocational training opportunities. This study seeks to fill this gap by empirically examining the role of TVET programs in promoting gender equality and empowering women and girls in rural Pakistan. Using a mixed-methods approach, including surveys, interviews, and focus group discussions with women, community leaders, and TVET program facilitators, the research aims to assess the impact of vocational training on women's economic and social outcomes. Additionally, it seeks to identify the barriers that hinder women's participation and offer policy recommendations for improving access, inclusivity, and effectiveness of TVET programs. By exploring how

TVET can be leveraged to empower women and challenge traditional gender roles, this study contributes to the broader conversation on gender equality and development. It emphasizes the need for context-specific, gender-sensitive policies that address the unique challenges faced by rural women and highlights the potential of vocational training to create pathways to economic independence, social mobility, and gender equality in rural Pakistan.

### 1.1. Women in Pakistan

In Pakistan, women, particularly those in rural areas, face significant socio-cultural and economic challenges that limit their opportunities for education, employment, and social participation. Patriarchal norms and traditional gender roles play a central role in shaping women's lives, often confining them to domestic spheres and restricting their access to economic resources. In rural communities, where these gender norms are particularly entrenched, women are frequently expected to prioritize household responsibilities over personal development, leaving little room for education or career aspirations. According to the Pakistan Demographic and Health Survey (PDHS), the literacy rate for women in rural areas is significantly lower than their urban counterparts. This educational gap is a major barrier to women's economic empowerment, as lower levels of education are strongly linked to limited employment opportunities, lower wages, and reliance on informal, unpaid labor. Rural women often have little exposure to vocational training or skill development programs, which are critical in opening up alternative avenues for employment and financial independence.

In addition to educational barriers, women in rural Pakistan often face practical limitations when it comes to mobility and access to resources. The lack of transportation infrastructure, coupled with societal expectations about women's public presence, makes it difficult for women to attend training programs or work outside the home. These logistical and cultural barriers contribute to the underrepresentation of women in the formal labor market and limit their participation in decision-making processes at both the household and community levels.

Despite these challenges, there has been growing recognition of the importance of women's economic empowerment in promoting broader social and economic development. The Pakistani government, alongside various international organizations and non-governmental actors, has initiated a range of programs aimed at improving women's access to education, vocational training, and employment. Among these initiatives, Technical and Vocational Education and Training (TVET) has emerged as a promising avenue for addressing gender disparities, particularly in rural areas. TVET programs can help equip women with practical skills, increasing their employability, income-generating potential, and self-sufficiency.

However, while TVET holds significant potential for empowering women, particularly in rural Pakistan, the full impact of these programs remains unclear. Rural women

often face multiple barriers that limit their access to such opportunities, including a lack of awareness about available programs, cultural resistance to women working outside the home, and economic constraints. Additionally, the training programs themselves may not always be designed with the specific needs of rural women in mind, such as flexible timing, gender-sensitive curricula, and safe, accessible training facilities. This section of the study explores the socio-economic and cultural context that shapes the lives of women in rural Pakistan, providing a foundation for understanding the challenges they face in accessing education, vocational training, and employment. By examining the intersection of gender, geography, and socio-economic status, the study aims to highlight how TVET programs can be more effectively tailored to the needs of rural women, ultimately contributing to their empowerment and the achievement of gender equality in Pakistan.

### 1.2. Statement of the Problem

In rural Pakistan, women face significant barriers to economic independence and social mobility due to entrenched gender norms, limited educational opportunities, and socio-economic challenges. These barriers hinder women's participation in the formal labor market, leading to high unemployment, underemployment, and reliance on unpaid domestic labor. While Technical and Vocational Education and Training (TVET) programs are recognized as a potential solution, there is limited understanding of their effectiveness in empowering women and promoting gender equality in rural areas. Women in rural Pakistan encounter multiple obstacles in accessing TVET, including poor infrastructure, cultural resistance to non-traditional work, lack of awareness about available programs, and financial constraints. Furthermore, even when women do participate in TVET, the training may not always be tailored to their specific needs or socio-cultural context. Despite the growing recognition of TVET as a tool for women's empowerment, empirical research on its impact in rural settings is scarce. Most studies have focused on urban areas or national trends, leaving a gap in understanding the unique challenges rural women face and the role of vocational training in addressing these challenges. This study aims to fill this gap by examining how TVET programs affect women's economic participation, social status, and empowerment in rural Pakistan. It will also identify the barriers that prevent women from accessing these opportunities and offer recommendations to improve TVET policies and programs to better support rural women, thus advancing gender equality and economic empowerment.

### 1.3. Significance of the Study

This study holds significant importance in both the context of rural development and gender equality in Pakistan, particularly by focusing on the role of Technical and Vocational Education and Training (TVET) programs as a catalyst for women's empowerment. The findings of this research contribute to a deeper understanding of how TVET can be leveraged to address the unique challenges faced by women in rural areas, where socio-cultural norms, economic disparities, and limited access to education create significant

barriers to gender equality.

1. **Contribution to Women's Empowerment in Rural Pakistan:** The study highlights the potential of TVET to improve the economic and social status of rural women by equipping them with practical, marketable skills. Women in rural areas often face limited educational opportunities, leaving them with few options for paid employment. By providing insights into how TVET programs can increase women's employability, income potential, and economic independence, this study contributes to strategies for reducing gender-based poverty and empowering women in communities where they are traditionally excluded from economic and public life.
2. **Policy Implications for Gender-Sensitive TVET Programs:** The research provides valuable data on the specific barriers and challenges that rural women face in accessing and benefitting from TVET programs. By identifying these obstacles—such as limited mobility, cultural resistance, and financial constraints—the study can inform policymakers and educational institutions about the need for gender-sensitive and context-specific vocational training programs. The findings can guide the development of policies that promote gender inclusivity in TVET, making programs more accessible, flexible, and relevant to the needs of rural women.
3. **Addressing Knowledge Gaps in Gender and Development Research:** While much of the existing literature on TVET focuses on urban or national-level programs, there is a lack of in-depth research on the specific dynamics in rural Pakistan, where cultural and logistical barriers are more pronounced. This study fills that gap by providing empirical evidence on the role of TVET in rural women's empowerment. The research expands the existing knowledge base on gender and development, offering new insights into how vocational education can serve as a tool for challenging entrenched gender roles and promoting social change in conservative rural communities.
4. **Practical Recommendations for Improving TVET Access:** By understanding the barriers to participation, such as lack of awareness, logistical difficulties, and socio-cultural constraints, this study offers practical recommendations for improving the accessibility and effectiveness of TVET programs. These recommendations can be used by governments, non-governmental organizations (NGOs), and community leaders to design interventions that target the unique needs of rural women, ensuring that TVET programs contribute to their long-term empowerment.
5. **Broader Impact on Gender Equality and Economic Development:** At a broader level, the study contributes to Pakistan's development goals, particularly in achieving gender equality and empowering all women and girls, as outlined in the United Nations Sustainable Development Goals (SDGs). By promoting women's participation in the workforce and increasing their economic independence, TVET can play a critical role in transforming the socio-

economic fabric of rural communities, helping to break the cycle of poverty and gender inequality. This, in turn, can contribute to national economic growth, social stability, and the overall well-being of families and communities.

6. **Providing a Framework for Future Research:** Lastly, the study provides a framework for future research on TVET and women's empowerment, especially in rural settings. It lays the foundation for further empirical investigations into the long-term outcomes of TVET programs for rural women, including how these programs affect women's decision-making power, social status, and participation in community leadership. The findings can also inform comparative studies between rural and urban women's experiences with TVET, offering insights into the effectiveness of various vocational training models across different contexts.

In conclusion, this study is significant because it addresses a critical gap in research, provides actionable insights for policymakers, and contributes to the broader goal of achieving gender equality and empowering women in rural Pakistan. By focusing on the role of TVET in empowering women, the study provides a pathway for more inclusive, sustainable, and effective development interventions aimed at improving the lives of women in rural communities.

#### 1.4. Research Questions

This study aims to explore the role of Technical and Vocational Education and Training (TVET) programs in promoting gender equality and empowering women and girls in rural Pakistan. The following research questions guide the investigation:

##### 1. How do TVET programs contribute to the economic empowerment of women and girls in rural Pakistan?

- This question explores the impact of TVET on women's economic independence, employability, income generation, and overall economic status.

##### 2. What are the key barriers faced by rural women in accessing TVET programs, and how do these barriers affect their participation and success in these programs?

- This question seeks to identify and understand the socio-cultural, logistical, and financial obstacles that hinder rural women's access to vocational training, such as limited mobility, cultural resistance, or lack of awareness.

##### 3. To what extent do TVET programs challenge traditional gender roles and promote gender equality in rural communities?

- This question examines the potential of TVET programs to alter societal perceptions of women's roles in the workforce and within the family, as well as how they contribute to shifting gender norms.

##### 4. What are the short-term and long-term outcomes of TVET participation for women in rural areas, in terms of employment, income, social status, and empowerment?

- This question looks at the tangible benefits of TVET participation, including changes in women's economic position, social standing, and empowerment both

immediately after training and over the longer term.

### 5. How can TVET programs be designed and implemented to better meet the needs of rural women, ensuring their greater participation and success?

- This question focuses on identifying best practices and recommendations for designing more inclusive, gender-sensitive, and accessible TVET programs for rural women, considering their specific challenges and needs.

These research questions aim to provide a comprehensive understanding of how TVET programs impact rural women's lives, the barriers they face in accessing these opportunities, and how these programs can be optimized to support women's empowerment and gender equality in rural Pakistan.

### 1.5. Literature Review

The literature on Technical and Vocational Education and Training (TVET) programs in the context of gender equality and women's empowerment, especially in rural areas, highlights both the potential and the challenges of vocational training in addressing socio-economic disparities. In the case of rural Pakistan, where traditional gender norms and limited access to education are deeply entrenched, TVET offers a promising pathway to economic independence and social mobility for women. However, despite the recognized benefits of vocational training, the effectiveness of TVET programs in empowering women in rural Pakistan remains understudied. This literature review synthesizes existing research on the role of TVET in promoting gender equality, barriers to women's participation in rural areas, and the social and economic outcomes of TVET programs.

### 1.6. TVET and Women's Empowerment

TVET has long been recognized as a key tool for promoting gender equality and empowering women. In developing countries, vocational education offers women practical skills that can help them secure paid employment or start their own businesses. By improving women's access to skilled employment, TVET reduces their economic dependency, increases their earning potential, and boosts their self-esteem. Studies show that women who participate in TVET programs are more likely to enter the formal labor market and find stable, well-paying jobs, compared to those with only basic or no education [1,2]. In many contexts, TVET also contributes to social empowerment by expanding women's roles beyond traditional domestic responsibilities, allowing them to participate in decision-making at both household and community levels [3]. Empowerment through TVET can be seen as both an economic and social transformation. Economically, it enables women to achieve financial independence, while socially, it can shift traditional gender roles by challenging the belief that women should remain in the private sphere [4].

### 1.7. Gender Disparities in Education and Employment in Rural Pakistan

Rural areas in Pakistan are characterized by significant gender disparities in access to education and employment opportunities. According to the Pakistan Demographic and

Health Survey (PDHS), the literacy rate for rural women is substantially lower than for their urban counterparts, with many girls being unable to complete secondary education due to economic, cultural, and logistical barriers [5]. As a result, many women in rural Pakistan face limited job prospects and often work in informal, unpaid sectors, such as agriculture or domestic labor. The patriarchal structure of rural society in Pakistan places considerable restrictions on women's mobility, autonomy, and participation in public life. Women are often expected to prioritize household duties over personal development, and working outside the home, especially in male-dominated fields, is considered socially unacceptable in many rural communities [6]. These social and cultural barriers contribute to high levels of female unemployment in rural areas, further exacerbating gender inequality. In this context, TVET has the potential to break the cycle of economic dependence by equipping women with practical skills that align with local labor market demands.

### 1.8. Barriers to Accessing TVET for Rural Women

Despite the potential benefits of TVET, women in rural Pakistan face numerous challenges in accessing these programs. Research indicates that one of the main obstacles is **limited mobility**. Due to both cultural restrictions and a lack of infrastructure, rural women often cannot travel to TVET centers, which are frequently located in urban or semi-urban areas [7]. Furthermore, **the cost of training**—whether in terms of transportation, fees, or the opportunity cost of time spent away from household responsibilities—can be prohibitive for many women, especially in economically disadvantaged rural areas [8]. Another significant barrier is **lack of awareness** about available vocational training opportunities. Many women in rural communities are unaware of the benefits and opportunities that TVET programs offer, particularly when they are targeted at non-traditional sectors such as construction, technology, or leadership roles. In many cases, **cultural norms** further restrict women's participation in certain types of vocational training, especially those considered "masculine" or inappropriate for women, such as mechanics, engineering, or carpentry [9]. Additionally, TVET programs often fail to address the **specific needs of rural women**, both in terms of content and delivery. The curricula in many TVET institutions are designed without considering the cultural and logistical challenges faced by women, such as childcare, household duties, or safety concerns when traveling to training centers [10]. This lack of customization means that rural women are either excluded or find it difficult to succeed in the training programs that do exist.

### 1.9. TVET's Impact on Economic and Social Outcomes for Women

Several studies have shown that TVET programs can have a significant positive impact on women's economic and social outcomes. Women who complete vocational training often report higher levels of **economic independence**, improved job prospects, and the ability to support their families financially [11]. For instance, research from South Asia suggests that women who receive technical training are not only more likely to enter the workforce but also earn

higher wages compared to those without formal vocational skills [12]. In terms of **social outcomes**, TVET programs can help women challenge traditional gender roles and gain greater **agency**. Studies suggest that women who work in non-traditional roles or own businesses are often seen as role models within their communities, encouraging other women to pursue similar pathways [9]. As such, TVET contributes to the broader **social transformation** by changing public perceptions of women's capabilities and roles in society. However, the long-term impact of TVET on women's empowerment depends heavily on the support systems available post-training. Studies indicate that women often face challenges in translating their skills into successful careers without **post-training support**, such as job placement services, mentorship, or access to capital for entrepreneurship [13]. Additionally, while TVET may equip women with skills, **gender biases** in the workplace and **limited labor market opportunities** can sometimes constrain the success of women graduates.

### 1.10. TVET Programs and Gender Equality in Pakistan

Pakistan's national development plans and international commitments, including the Sustainable Development Goals (SDGs), emphasize the importance of gender equality and the empowerment of women. The government of Pakistan, along with various international organizations, has invested in a range of **TVET initiatives** designed to improve women's participation in the workforce. These initiatives aim to address gender gaps in education and employment, particularly in rural areas, through the provision of training in market-relevant skills and the promotion of women's economic participation [14].

However, the success of these programs in achieving gender equality is still limited. A review of TVET programs in Pakistan highlights several challenges, including **insufficient infrastructure, gender-insensitive curricula, and lack of targeted outreach** to rural women. Furthermore, there is a need for **community engagement and cultural sensitization** to reduce resistance to women's participation in vocational training [15]. The literature on TVET and women's empowerment in rural Pakistan reveals a complex interplay of opportunities and challenges. While TVET has the potential to be a transformative tool for women's economic empowerment and gender equality, its success depends on overcoming significant barriers, particularly in rural contexts. These barriers include cultural norms, logistical challenges, financial constraints, and the need for gender-sensitive policies and curricula. This study seeks to fill the gap in empirical research by focusing specifically on rural women in Pakistan, exploring how TVET programs can be designed and implemented to better meet their needs and contribute to their long-term empowerment.

## 2. Methodology

This study employs a mixed-methods research approach to explore the role of Technical and Vocational Education and

Training (TVET) programs in promoting gender equality and empowering women and girls in rural Pakistan. The mixed-methods design is appropriate for capturing both quantitative data on the impact of TVET programs and qualitative insights into the barriers and experiences of women in rural areas. The methodology consists of three primary components: a survey of women who have participated in TVET programs, in-depth interviews with key stakeholders, and focus group discussions to gather community-level perspectives. The study uses both descriptive and inferential analysis to understand the outcomes of TVET participation and identify factors that enhance or hinder women's empowerment.

### 2.1. Research Design

- **Mixed-Methods Approach:** The research combines quantitative and qualitative methods to provide a comprehensive understanding of the impact of TVET programs on women's empowerment in rural Pakistan.
- **Quantitative data** is collected through structured surveys to measure the economic, social, and psychological impact of TVET on women participants.
- **Qualitative data** is collected through semi-structured interviews with women, TVET facilitators, and community leaders, as well as focus group discussions to gather deeper insights into the lived experiences of rural women and the barriers they face in accessing vocational training.

### 2.2. Study Area and Population

The study was conducted in rural areas of Punjab, Khyber Pakhtunkhwa, and Sindh provinces of Pakistan, which have diverse socio-economic conditions and varying levels of access to educational and vocational training facilities. These provinces were chosen because they represent a cross-section of Pakistan's rural demographic, where women face different socio-cultural challenges in accessing education and employment.

### Target Population

- Women who have participated in TVET programs in the past 2-3 years.
- TVET facilitators and trainers who provide vocational education to women.
- Community leaders (e.g., local government representatives, NGOs, and heads of women's organizations) who are involved in or have knowledge of TVET programs in rural areas.

### 2.3. Sampling Strategy

A stratified random sampling technique was used to select the survey respondents from different regions of rural Pakistan, ensuring that the sample reflects the diversity of socio-economic conditions and cultural contexts. The survey included 300 women participants in TVET programs, 15 TVET facilitators, and 10 community leaders. The sample is further stratified as follows:

| Category                          | Sample Size | Description                                            |
|-----------------------------------|-------------|--------------------------------------------------------|
| TVET Program Participants (Women) | 300         | Women who have completed TVET programs in rural areas. |
| TVET Facilitators                 | 15          | Trainers and facilitators of TVET programs.            |
| Community Leaders                 | 10          | Local community representatives, NGO leaders, etc.     |

For **focus group discussions**, the study organized 5 groups of 6-8 women participants each. These groups were selected from different rural regions, ensuring variation in training types and experiences.

## 2.4. Data Collection Methods

**1. Survey of Women Participants:** The survey instrument consisted of structured questions designed to gather both demographic information (e.g., age, education level, income, household size) and data on the following dimensions:

- **Economic Impact:** Changes in employment status, income level, and job type since completing TVET training.
- **Social Impact:** Changes in social status, autonomy, and decision-making power within the household and community.
- **Personal Empowerment:** Self-reported increases in confidence, self-esteem, and ability to challenge gender norms.

The survey also included questions on the challenges women faced in accessing TVET and the support systems they received during and after training.

**2. Interviews with TVET Facilitators:** In-depth, semi-structured interviews were conducted with 15 TVET facilitators to gather insights into the design and implementation of TVET programs. The interviews focused on the following:

- **Program Structure and Content:** How the curricula are designed and whether they are gender-sensitive.
- **Barriers to Female Participation:** Challenges faced by women in enrolling in and completing TVET programs.
- **Support Mechanisms:** The availability of mentorship, job placement services, or post-training support for women.

**3. Focus Group Discussions:** Focus group discussions (FGDs) were conducted with 6-8 women in each group (total of 5 groups) to capture the collective experiences of women in rural communities. The discussions focused on:

- **Barriers to Access:** Socio-cultural, financial, and logistical challenges preventing women from participating in TVET.

- **Perceived Impact:** How women perceive the impact of TVET on their economic and social empowerment.

- **Community Perceptions:** Local perceptions of women working outside the home and participating in non-traditional fields.

**4. Interviews with Community Leaders:** Interviews with 10 community leaders were conducted to gather insights into the role of local institutions, cultural attitudes, and community-level support for women in TVET programs. These interviews also explored the broader impact of TVET on women's roles in rural society.

## 2.5. Data Analysis

**1. Quantitative Analysis:** The survey data were analyzed using descriptive statistics (e.g., frequencies, percentages, mean scores) to provide an overview of the socio-economic impact of TVET on women. Inferential statistics, specifically chi-square tests and t-tests, were used to explore the relationship between training participation and changes in women's employment status, income levels, and social empowerment. Regression analysis was conducted to determine factors that significantly predict women's success in TVET programs.

**2. Qualitative Analysis:** The qualitative data from interviews and focus group discussions were analyzed using a thematic analysis approach. Key themes related to barriers to participation, impact on women's empowerment, and recommendations for improving TVET programs were identified. Thematic coding was done manually, with key passages of text being categorized and coded into themes based on recurring patterns across the data.

## 2.6. Ethical Considerations

- **Informed Consent:** All participants were provided with detailed information about the study's objectives and gave informed consent prior to participating.

- **Confidentiality:** All responses were kept confidential, and personal identifiers were removed during data analysis to protect participant privacy.

- **Voluntary Participation:** Participants were assured that their involvement in the study was voluntary and that they could withdraw at any time without penalty.

- **Limitations of the Study**

- **Sample Bias:** While the study attempts to capture a

representative sample of rural women, the findings may not be fully generalizable to all rural areas in Pakistan due to regional variations in access to TVET.

- **Response Bias:** Self-reported data on empowerment and social status may be subject to bias, as participants may feel pressure to provide socially desirable responses.

- **Logistical Constraints:** Due to travel and security limitations in certain rural areas, access to some regions was restricted, potentially limiting the breadth of the study.

This mixed-methods approach allows for a comprehensive analysis of the role of TVET in rural women's empowerment, considering both quantitative impacts and qualitative experiences. By combining survey data, interviews, and focus group discussions, the study seeks to provide a nuanced understanding of how TVET programs can be enhanced to better meet the needs of rural women in Pakistan.

### 3. Results and Discussion

This section presents the results of the data analysis from the survey, interviews, and focus group discussions, followed by a discussion of the findings in the context of the research questions. The analysis is organized around the key themes that emerged from the data, including the **economic impact**, **social impact**, **barriers to access**, and **effectiveness of TVET programs** in promoting gender equality and empowering rural women in Pakistan.

#### 1. Economic Impact of TVET on Women

One of the primary objectives of this study was to assess the economic empowerment of rural women who have participated in TVET programs. The survey results indicated a significant improvement in women's economic outcomes following their participation in TVET.

| Indicator                                    | Before<br>TVET<br>(%) | After<br>TVET<br>(%) | Change (%) |
|----------------------------------------------|-----------------------|----------------------|------------|
| Employment Status (Employed vs. Unemployed)  | 25%                   | 70%                  | +45%       |
| Income Level (increased)                     | 18%                   | 55%                  | +37%       |
| Self-Employed<br>(Business/Entrepreneurship) | 10%                   | 30%                  | +20%       |
| Formal Sector Employment                     | 12%                   | 40%                  | +28%       |

**Table 1: Economic Outcomes of TVET Participation (n=300)**

#### Discussion

The findings show that TVET programs had a positive impact on employment outcomes for women. Prior to participation in TVET, only 25% of rural women were employed, and 18% reported an increase in income. After completing vocational training, the number of women employed increased to 70%, with a corresponding rise in income levels for 55% of respondents. This suggests that TVET helped women transition from informal, low-paying work to formal, stable employment, or enabled them to establish their own businesses, thus achieving greater financial independence.

The shift toward **self-employment and formal sector employment** highlights the importance of TVET in promoting entrepreneurship and access to better-paying jobs in rural areas. As many rural women face challenges in accessing formal job markets, TVET opens up opportunities for small business ownership and income-generating activities that are both locally relevant and sustainable.

#### 2. Social Impact of TVET on Women's Empowerment

TVET programs not only improve economic outcomes but also have significant social and psychological impacts on women. The survey asked women about changes in their **social status**, **autonomy**, and **decision-making power** within their families and communities.

| Indicator                               | Before TVET (%) | After TVET (%) | Change (%) |
|-----------------------------------------|-----------------|----------------|------------|
| Increased Autonomy (Decision-making)    | 20%             | 60%            | +40%       |
| Social Status (Recognized in Community) | 15%             | 50%            | +35%       |
| Participation in Community Leadership   | 5%              | 25%            | +20%       |
| Household Decision-making (Financial)   | 10%             | 45%            | +35%       |

Table 2: Social Impact of TVET Participation (n=300)

### Discussion

TVET programs contributed to **increased autonomy** for women, as evidenced by a 40% rise in the number of women who reported having more control over household and financial decisions. This reflects a broader shift in societal perceptions, where women are increasingly seen as key economic contributors and decision-makers in their households. The increase in social status (from 15% to 50%) and the rise in **community leadership roles** (from 5% to 25%) suggest that women who completed TVET programs are gaining greater respect and recognition within their

communities. The newfound economic independence and skills gained through vocational training have enabled women to challenge traditional gender norms, positioning them as role models and leaders within their local environments.

### 3. Barriers to Accessing TVET Programs

Despite the positive impacts of TVET, the study also revealed several barriers that prevent women from fully participating in these programs. These barriers were identified through both the survey and interviews with TVET facilitators and community leaders.

| Barrier                                | Percentage of Women Reporting |
|----------------------------------------|-------------------------------|
| Limited Mobility (Transport Issues)    | 62%                           |
| Cultural Resistance (Social Norms)     | 54%                           |
| Financial Constraints (Tuition, Fees)  | 45%                           |
| Lack of Awareness (Program Knowledge)  | 38%                           |
| Safety Concerns (Traveling to Centers) | 30%                           |

Table 3: Barriers to Accessing TVET Programs (n=300)

## Discussion

The most frequently reported barrier to accessing TVET programs was limited mobility, with 62% of women citing transportation challenges as a key obstacle. In rural Pakistan, inadequate infrastructure and traditional gender norms limiting women's movement outside the home contribute significantly to this barrier. Cultural resistance (54%) also emerged as a major constraint, with families and communities often discouraging women from pursuing vocational training, especially in non-traditional fields.

**Financial constraints** were also a significant barrier for 45% of respondents. The cost of attending TVET programs,

including tuition fees and transportation, is often prohibitive for women in rural areas, particularly those from low-income families. In some cases, women reported that their families prioritized other needs, such as agricultural work or child-rearing, over educational opportunities for women.

## 4. Effectiveness of TVET Programs in Challenging Gender Norms

Another key area of interest was the role of TVET in challenging traditional gender roles. The study explored how women's participation in TVET impacted their engagement in non-traditional sectors and their ability to defy societal expectations.

| Sector of Training           | Percentage of Women in Non-Traditional Sectors |
|------------------------------|------------------------------------------------|
| Agriculture/Farming          | 20%                                            |
| Construction/Building Trades | 15%                                            |
| Technology/Computer Science  | 12%                                            |
| Beauty and Fashion           | 10%                                            |
| Health and Care Services     | 8%                                             |

**Table 4: TVET Programs and Gender Norms (n=300)**

## Discussion

TVET programs have made some strides in encouraging women to pursue training in **non-traditional sectors**, such as **construction**, **technology**, and **agriculture**. However, these fields still have relatively low female participation. Women in the study who participated in these sectors reported facing **social stigma** and **resistance** from family members and community members who perceived these occupations as "inappropriate" for women. Nevertheless, the women who successfully entered these non-traditional sectors noted a significant sense of **personal empowerment** and pride in defying societal expectations. This suggests that while cultural attitudes may be slow to change, TVET programs can play a role in **challenging traditional gender roles** and broadening the horizons of what is considered acceptable for women in rural Pakistan.

## Conclusions and Policy Implications

The findings of this study indicate that TVET programs have a significant impact on the economic and social empowerment of rural women in Pakistan, with improvements in employment outcomes, income, and social status. However, barriers such as mobility, financial constraints, and cultural resistance continue to hinder women's access to these opportunities.

To maximize the potential of TVET in empowering rural women, the study recommends the following policy measures:

- Improved accessibility through mobile training units or local training centers to reduce mobility barriers.
- Financial support programs, such as scholarships, stipends, or subsidized fees, to alleviate the economic burden on women.
- Cultural sensitization programs aimed at changing attitudes towards women in non-traditional roles, supported by community leaders and NGOs.
- Gender-sensitive curricula that are designed to cater to the specific needs of rural women, including flexible hours and support networks for work-life balance.
- By addressing these barriers, TVET programs can more effectively contribute to achieving gender equality and empowering rural women in Pakistan.

## 4. Conclusion

This study has explored the role of Technical and Vocational Education and Training (TVET) programs in promoting gender equality and empowering women and girls in rural Pakistan. The findings indicate that TVET programs significantly enhance the economic empowerment and social status of rural women, contributing to their economic

independence, increased autonomy, and social mobility. Women who participated in TVET experienced greater employment opportunities, higher income levels, and improved decision-making power within their households and communities. Moreover, the study revealed that TVET can challenge traditional gender roles by providing women with the skills and confidence to enter non-traditional fields and take on leadership roles.

However, despite the promising outcomes, the study also highlighted several barriers that impede rural women's access to TVET. These include mobility constraints, cultural resistance, financial barriers, and limited awareness of available training opportunities. Addressing these barriers is crucial for improving access to TVET programs and ensuring that rural women can fully benefit from these opportunities. The study suggests that TVET can play a transformative role in empowering rural women, but its effectiveness is contingent upon the development of gender-sensitive policies and the provision of targeted support systems. To maximize the impact of TVET on women's empowerment, it is essential to design programs that are accessible, affordable, and culturally acceptable. This includes creating mobile training units, offering financial assistance for tuition and travel, and promoting community engagement to shift societal attitudes towards women's participation in vocational training.

In conclusion, TVET programs in rural Pakistan hold significant potential to drive gender equality and empower women by providing them with the tools to improve their socio-economic status and challenge traditional gender norms. However, for these programs to be truly transformative, a holistic approach is required—one that addresses the structural, cultural, and economic barriers that limit women's access to training and employment opportunities. By adopting a more inclusive, gender-sensitive approach, TVET programs can play a pivotal role in advancing gender equality and fostering sustainable development in rural Pakistan.

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