

Skilled Women's Self-Employability and TVET Programs in Balochistan: An Empirical Research

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ABSTRACT

TVET programs are increasingly acknowledged for equipping women with vital skills to meet the dynamic labor market demands. However, a research gap exists regarding the specific impact of TVET on women's self-employability. To address this, we employed a mixed-methods approach to investigate skilled women's self-employability and TVET programs in Balochistan. Quantitative data from 368 enrolled and graduated female TVET students in Quetta, Balochistan, under the RASTA project, were collected using self-administered surveys and analyzed using SPSS version 26.0. Additionally, qualitative research involved in-person and focus group interviews with 27 participants, including TVET female graduates, skilled women entrepreneurs, and subject matter experts. Thematic analysis was conducted using NVivo software to interpret experiences and opinions. The findings underscore both positive aspects and challenges faced by women entrepreneurs within TVET programs. Qualitative insights shed light on work-family imbalances experienced by self-employed women due to traditional gender roles and societal expectations, leading to time and energy constraints. Despite encouraging changes in family dynamics supporting female entrepreneurship, barriers such as unfair expectations, limited credit access, inadequate funding resources, and complex loan procedures persist for women in micro and small enterprises. Social constraints, family commitments, and interpersonal skills emerged as additional influences on women's entrepreneurial success. Based on these insights, our study advocates government agencies and local bodies to offer family support services, empowering women entrepreneurs and alleviating familial-business balance burdens. Addressing identified bottlenecks will create an enabling environment for women entrepreneurs, contributing to broader socio-economic growth in the region. By strengthening TVET's role in enabling women with valuable skills and supporting their entrepreneurial aspirations, we can strive for a more inclusive and equitable economic landscape in Balochistan.

PREFACE

The economic inclusion and empowerment of women play a fundamental role in driving progress and sustainable development in any society. Recognizing the importance of promoting self-employability among skilled women through Technical and Vocational Education and Training (TVET) programs, the RASTA Project was initiated. This project, titled "Skilled Women's Self-Employability and TVET Programs in Balochistan: An Empirical Study," aims to comprehensively understand the factors influencing the self-employability of skilled women in Balochistan and the role of TVET programs in facilitating their entrepreneurial pursuits. By investigating the experiences and perspectives of skilled women, educational institutions, employers, and policymakers, this project aims to contribute valuable insights and evidence-based recommendations for policy formulation, program design, and institutional development. The World Bank's World Development Report (2019) emphasizes the continued significance of self-employment and traditional farming sectors, employing a considerable share of the workforce despite significant demographic, structural, technological, and global shifts. UNESCO's concept of TVET underscores the importance of providing relevant skills training aligned with labor market demands. Equipping women with TVET skills enhances their marketability, improves their employment prospects, and empowers them to earn competitive wages in the job market, thus strengthening their overall employment opportunities. We extend our heartfelt gratitude to the organizations, individuals, and governmental bodies whose collaboration and support made this research project possible. Special thanks are due to the participants who generously shared their experiences and knowledge, enriching the empirical data. The guidance of mentors, expertise of consultants, and contributions of various stakeholders has been indispensable in shaping the scope and direction of this study.

The core research team, led by Nagina Gul as the Principal Investigator, alongside Niamat Ullah Baloch and Mrestyal Khan as Co-Principal Investigators, employed a diverse range of research methods, including rigorous analysis, desk reviews, interviews, surveys, and data collection, ensuring a robust and comprehensive investigation. Esteemed Mentors, Abdul Salam Lodhi and Hafeez Jamli, provided invaluable guidance, shaping the research process. We extend our appreciation to Mr. Gulam Raza and the Principals of Girls' TVET sectors, as well as women entrepreneurs who actively participated in the evaluation exercise, enriching the discussions and enhancing the research process. Their insights significantly enriched the completion of the RASTA project report. The report underwent rigorous peer review by Abdul Salam Lodhi and Mr. Hafeez Jamli, as well as TVET experts, whose positive reception of the study's findings and recommendations further validated the significance of this research. The culmination of this study represents a collaborative effort aimed at shedding light on the intricate dynamics of TVET skilled women's employability and providing evidence-based recommendations for policy formulation, program development, and institutional enhancement. We sincerely hope that the findings and insights presented in this report will inspire positive change, fostering increased graduate employability and ultimately contributing to the socioeconomic development of Balochistan and beyond.

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List of Abbreviations

TVET	Technical and Vocational Education and Training
CPEC	China-Pakistan Economic Corridor
OECD	The Organization for Economic Cooperation and Development
BTEVTA	Balochistan Technical Education & Vocational Training Authority
GGGR	Global Gender Gap Report
GLF	Women's labor-force
NAVTEC	National Vocational Technical Education Commission
SMEs	Small-Medium Enterprises
MLE	Ministry of Labor and Employment
STEM	Science, technology, engineering, and mathematics
BRI	Belt and Road Initiative
CBT	Competency Based Training
UNHCR	United Nations High Commissioner for Refugees
SMEDA	Small and Medium Enterprises Development Authority
FGD	Focused Group Discussion
NGO	Non-governmental organization
NIC	National Incubation Center

INTRODUCTION

Technical and Vocational Education and Training (TVET) in Pakistan is shaped by a complex historical narrative of socio-economic demands, educational paradigms, and policy frameworks. Rooted in colonial industries, vocational education gained traction pre-independence (Smith, 1998). Post-1947 partition, Pakistan pursued self-reliance and industry growth, accentuating skilled workforce needs (Ahmed, 2006). Post-independence Five-Year Plans integrated TVET into national curricula (Government of Pakistan, 1955), with subsequent decades establishing vocational centers and polytechnic institutes to meet sectoral demands (Khan, 1982). NAVTEC's 2005 establishment facilitated public-private partnerships (NAVTEC, 2005), while 21st-century technology revolutionized pedagogy (Johnson et al., 2018). Persistent challenges include curriculum-industry misalignment and gender disparities (Hussain, 2020; Malik, 2016). Addressing these requires refined strategies, industry engagement, and gender-sensitive policies.

Over the past few decades, Technical and Vocational Education and Training (TVET) in Pakistan has undergone a significant transformation from a focus solely on workforce preparation to a comprehensive integration of practical skills, technology, and knowledge (Meskell, 2012). This shift positions TVET as a framework for human capital development, catering to the demands of industrialization and economic growth (Hassan & Siwar, 2021). As the global landscape changes due to globalization, technological advancements, demographic shifts, and environmental changes, the workforce faces new challenges and expectations (Marope, Chakroun, & Holmes, 2015). An adept and skilled workforce is pivotal in driving industrialization, economic progress, and attracting foreign direct investment (Hussain, Zulkifli, Kamis, Threeton, & Omar, 2021). To meet the requirements of a globalized and technologically advanced economy, the TVET industry in Pakistan has been proposed to become a demand-driven sector that fosters an adaptable and highly skilled workforce (Ansari & Wu, 2013). Despite its growing importance in the workforce, it is crucial to ensure that the implementation of TVET programs takes into account the specific needs and requirements of women in the labor market (Quisumbing & Kumar, 2011). Vocational education plays a crucial role in meeting the demands of the evolving job market, providing enhanced training and upskilling individuals to meet the evolving needs of industries (Runde et al., 2018). The association of vocational education with professional and economic advancement further emphasizes the importance of prioritizing TVET as a crucial element for economic growth and societal development (Edokpolor & Abusomwan, 2019).

The trajectory of Technical and Vocational Education and Training (TVET) in Pakistan traverses distinct phases, extending from its colonial origins to the era of post-independence growth and contemporary modernization. Noteworthy is the discernible upward trajectory witnessed within the broader Pakistani context and notably within the Balochistan region (Shah, 2019). This evolution is substantively shaped by a convergence of indigenous initiatives, international collaborations, and the assimilation of progressive pedagogical paradigms. TVET constitutes a comprehensive educational framework centered on endowing individuals, including women, with pragmatic and industry-specific skills, knowledge, and competencies. Tailored for diverse trades, professions, and vocations such as engineering, technology, healthcare, agriculture, and business, TVET programs amalgamate hands-on training with theoretical comprehension. Essential to bridging the education-labor market gap, TVET empowers women to embark on careers with pertinent skills, thereby heightening employability.

TVET has been recognized globally as a means of equipping individuals, including women, with practical skills and knowledge to enter the labor market and engage in self-employment (UNESCO, 2021). In the context of Balochistan, where gender disparities in education and economic opportunities persist (Khan et al., 2020), understanding the impact of TVET programs on women's self-employability is crucial for fostering inclusive economic growth and gender equality. Technical

and Vocational Education and Training (TVET) programs have garnered increasing recognition as effective means of equipping women with valuable skills to navigate the rapidly fluctuating labor market (UNESCO, 2021). TVET aims to bridge the gap between education and the workforce, preparing learners, including women, for specific trades, occupations, and professions with practical and industry-specific competencies (ILO, 2019). These programs are believed to enhance individuals' employability prospects, particularly for women, by providing them with hands-on training and theoretical understanding in various fields, such as engineering, technology, healthcare, agriculture, business, and others (Cedefop, 2020).

With Balochistan experiencing economic growth, there is a growing recognition of the need to focus on social and human development, particularly in empowering capable women (Mohammed et al., 2023). A comprehensive assessment of self-employment drivers in the literature found that completing apprenticeship training enhances the likelihood of individuals becoming self-employed (Mohammed et al., 2023). Recognizing the importance of women's economic contributions and empowerment is vital for enabling them to exercise control over their lives and make a meaningful impact on society (Mohammed et al., 2023). Ultimately, empowering women economically can serve as a catalyst for long-term development (Mohammed et al., 2023).

Amidst the modern-day Industrial Revolution, technical vocational education and training (TVET) has gained comprehensive attention in the realm of education due to its distinct qualities (Asad et al., 2023). TVET integrates practical skills, technological advancements, and knowledge, encompassing both general and career-specific practices (UNESCO, 2011). Recent decades have witnessed a paradigm shift in TVET, driven by advancements in employment trends and labor-market requirements, transforming it into a framework for human capital development, focusing on industrialization (Hassan et al., 2021). Germany's approach to TVET highlights the significant societal influence attributed to highly skilled professionals (Okoli et al., 2016). Pakistan, with a substantial youth population, necessitates skilled TVET graduates to meet labor market demands and contribute to economic progress (P. B. o. Statistics, 2020). Vision 2025 outlines the objectives to transform Pakistan into a well-developed and industrialized nation by 2025 (Commission, 2014). However, challenges persist, such as high school dropout rates, hindering the country's progress in attaining a skilled workforce (Pakistan, 2017; UNDP, 2014). Nurturing a trained and qualified workforce is crucial for achieving sustainable economic growth and meeting global standards (Sarastuen, 2020).

In Pakistan, Technical and Vocational Education and Training (TVET) programs play a crucial role in addressing the significant demand for individuals equipped with vocational skills, especially in a low-income country where female labor force participation stands at approximately 20% (Statistics, 2018). TVET's effectiveness lies in generating employment opportunities and enhancing the productivity of individuals, with participants often achieving higher incomes than their academically-oriented counterparts when the education aligns with industry requirements (Sumatra Chlamydia, 2020). Gebremeskel's (2023) study revealed that trainer competence, dedication, and trainee characteristics strongly influence the attainment of graduate core competency in TVET. Given the pressing need to empower women economically and bridge gender disparities in Pakistan, entrepreneurship becomes a vital avenue for competent women to explore ideas and contribute to the economy and society. However, Pakistan faces significant challenges in gender parity, ranking disappointingly low on the global gender gap index, underscoring the need for substantial improvements in gender equality (World Economic Forum, 2021). In the context of TVET, Minani and Sikubwabo (2022) highlight its crucial role in women's empowerment, equipping them with practical skills and entrepreneurship abilities. Nevertheless, women entrepreneurs still face unique challenges, necessitating further research and targeted policies. In Balochistan, the least-developed province of Pakistan, the TVET system's evaluation becomes essential to match skill requirements for potential China-Pakistan Economic Corridor (CPEC) projects, necessitating

strategic decisions and policy reform (Minani & Sikubwabo, 2022). Globally, the increase in skilled women entrepreneurs has garnered attention, yet women still face unequal prospects in entrepreneurship, driven by structural factors and social constraints (S. Nedelchev, 2012; Abd Karim & Mustapha, 2022). Addressing these challenges is essential for promoting women's economic empowerment and fostering inclusive growth in Balochistan and beyond.

Despite the growing recognition of the overall effectiveness of Technical and Vocational Education and Training (TVET), there exists a significant research gap concerning the specific impact of these programs on women's self-employability (Ahmed et al., 2021). This gap is particularly pronounced in the context of Balochistan, where gender disparities in educational and employment opportunities persist, further underscoring the importance of understanding how TVET influences women's entrepreneurial aspirations and success to advance women's economic empowerment and foster inclusive growth (Khan et al., 2020). To address this research gap, our study employed a comprehensive mixed-methods research approach, encompassing both quantitative and qualitative methods, to examine skilled women's self-employability and the role of TVET programs in Balochistan.

The research aims to establish a robust framework for designing empirically-based programs that effectively support women in their pursuit of self-employment and improve their business success. Additionally, the study seeks to contribute to the theoretical understanding of the relationship between TVET investment and economic development, addressing gaps and controversies in the empirical evidence related to the significance of competent women in driving economic growth. By providing well-supported findings, the research aims to contribute to the ongoing debates and steer future development and economic growth in Balochistan, thus aligning with the broader goal of achieving the SDG "Quality Education" through education's role in fostering overall welfare and societal development (Kissi et al., 2020; Okwelle & Wordu, 2014; Watters, Hay, Dempster, & Pillay, 2013; Khan, 2018; Sunde & Vischer, 2015).

The significant contributions of women to the growth of nations and societies are widely acknowledged. Female entrepreneurs, in particular, play a crucial role in driving economic growth, creating employment opportunities, and fostering innovation within their respective countries (Ladge, Eddleston, & Sugiyama, 2019; Lenka & Agarwal, 2017; Zeb & Ihsan, 2020). The number of working women, especially female entrepreneurs, has been on the rise worldwide (Staniewski & Awruk, 2019; Tambunan, 2011; Zainol & Al Mamun, 2018). The participation of women entrepreneurs significantly contributes to a country's economic prosperity. In innovation-driven economies, women entrepreneurs often require minimal instrumental support from their families and encounter less gender discrimination in accessing funding, thanks to robust government support for businesses. This favorable environment empowers women to achieve greater self-sufficiency and financial confidence (Welsh, Kaciak, & Thongpapanl, 2016). Recognizing the importance of women's economic contributions and empowerment, along with reinforcing their rights and autonomy, is vital in enabling them to take control of their lives and make a meaningful impact on society. Ultimately, the economic empowerment of women can act as a catalyst for long-term development (Mohammed et al., 2023).

1.1. Problem Statement of the Study

The Technical and Vocational Education and Training (TVET) system in Balochistan has a longstanding presence, but there is a need for a comprehensive understanding of its implementation and perception among all stakeholders. When considering reforms in vocational systems, it is crucial to critically assess and align them with national objectives (Euler, 2013). This study aims to investigate the perspectives and aspirations of female TVET students in Balochistan, delving into their current educational experiences and future career prospects. By doing so, the research seeks to provide valuable insights into the TVET landscape in Balochistan and inform

efforts to enhance educational and career pathways for female students. The current financial crisis has exacerbated challenges related to elderly populations, labor shortages, unemployment, inequality, and poverty, alongside strict immigration laws protecting local jobs (Svobodova & Cerna, 2018). Restructuring TVET solely for skilled women is insufficient in augmenting human capital; continuous upskilling of the existing workforce is equally crucial (World Economic Forum). OECD countries have recognized the correlation between increased female unemployment rates and the implementation of TVET programs (Hilal; Powell & McGrath, 2014).

TVET in Pakistan faces various challenges, including limited industrial linkages, high unemployment rates, insufficient teacher preparation, and low female participation (Kazmi & Abbas, 2020). While the study highlights the positive outcomes of TVET implementation, such as increased profitability, salary growth, and enhanced employment opportunities for skilled women (Mustafa, Rizov, & Kernohan, 2017), effective empowerment of women with advanced skills requires strong linkages between TVET institutions and sectors seeking talented women (Jane Itohan Oviawe, 2018). This research aims to examine the role of TVET institutes in promoting women's self-employment skills and evaluate existing TVET programs in Quetta, Balochistan, addressing the lack of investigation into the factors underlying the empowerment of skilled women. According to Bano, Yang, and Alam (2022), TVET institutions face challenges due to inadequate human resources and physical infrastructure, despite rapid expansion. The rising demand for skilled workers necessitates exploring the potential link between enhancing self-employability among skilled women through TVET and job creation. However, empirical evidence on this notion is scarce. Thus, the study aims to fill this knowledge gap by investigating four guiding research questions.

1.1 Research Objectives

1. To analyze the TVET institutes' role in promoting women's hands-on skills in Quetta, Balochistan.
2. To identify the factors that contribute to the success of TVET programs in enhancing the self-employability of skilled women in Balochistan.
3. To examine the perceptions of enrolled and pass-out women regarding TVET institutes' role in promoting their self-employment skills in Quetta, Balochistan.
4. To examine the challenges and barriers that skilled women face in accessing and participating in TVET programs in Balochistan.

1.2. Research Questions

1. What is TVET institutes' role in promoting women's hands-on skills in Quetta, Balochistan?
2. What are the factors that contribute to the success of TVET programs in enhancing the self-employability of skilled women in Balochistan?
3. How do enroll and pass-out women perceive TVET institutes' role in promoting their self-employment skills in Quetta, Balochistan?
4. What are the challenges and barriers that skilled women face in accessing and participating in TVET programs in Balochistan.?

1.4. Purpose of the Study

This research project aims to investigate the link between skilled women's self-employability and Technical Vocational Education and Training (TVET) programs, specifically their impact on women's job creation through hands-on product-based training in Quetta, Balochistan. Addressing

the challenges of skilled women unemployment and poverty in the region, the study suggests that equipping women with entrepreneurial skills via TVET and stakeholder collaboration could mitigate pandemic-related setbacks. The research underscores the economic growth potential of women's self-employment and entrepreneurship for generating jobs. Recognizing women as integral to development, the study underscores government commitment to nurturing women's self-employment skills for sustainable development. TVET's role in building a skilled workforce is acknowledged, with implications for policymakers, authorities, and corporations. The study provides guidelines for inclusive economic progress and policy formulation.

LITERATURE REVIEW

In the contemporary landscape, the strategic significance of Technical and Vocational Education and Training (TVET) institutions in the cultivation of skills and enhancement of women self-employability has garnered substantial scholarly attention, particularly within locales characterized by pronounced gender disparities and limited avenues for formal education (Smith, 2018). This investigation centers its focus upon Quetta, the capital of Balochistan province in Pakistan, to elucidate the nuanced impact of TVET on women's skills acquisition and entrepreneurial ventures within a distinctive socio-cultural backdrop (Johnson & Williams, 2019).

In the global discourse on gender equality, the exploration of TVET's role in bridging women's skills and employment gaps aligns with Sustainable Development Goals (SDG 5 and SDG 8; United Nations, 2015). This review meticulously evaluates TVET's contribution to women's practical skill development in Quetta (Johnson & Williams, 2019). By examining program effectiveness, women's perspectives, and challenges, this study provides insights crucial for policy refinement. Despite TVET's significance in skill enhancement, limited research exists on its impact in gender-disparate regions (Smith, 2018; Johnson & Williams, 2019). This study addresses this gap by scrutinizing TVET's influence on women's entrepreneurship in Quetta (Khan & Ahmed, 2020), investigating impact scale, program determinants, learner perceptions, graduates' experiences, and barriers to TVET access (Jackson & Patel, 2017).

It nurtures economic growth, social equity, and environmental sustainability (Organization, 2016; Azeem et al., 2022). TVET's relevance is paramount in emerging economies, adapting to evolving economic needs (Azeem et al., 2022). Inclusion of industries in skills training design, as highlighted by Shoko Yamada and Christian S. Otchia (2020), enhances effectiveness. Collaboration between TVET and industry is pivotal in curriculum, equipment, facility advancement, and instructional methodologies (Maclean et al., 1999). Vocational Education and Training (VET) emerges as a dynamic domain encompassing labor markets, employability, human capital, policies, and wage disparities within education and labor economics (A. Ahmed, Wadood, & Mohammad, 2020). Alhasan and Tyabo (2013) define Technical and Vocational Education as a tailored paradigm for meaningful employment preparation. Similarly, Gul, Khan, and Anwar (2019) stress TVET's core aim of empowering women with skills for employment and entrepreneurship. Governments globally strive for gender parity, particularly in entrepreneurship, but Pakistan faces gender imbalance, with males outnumbering females by 6.57 million. The 'Global Gender Gap Report 2021' ranks Pakistan 153rd out of 156 nations, with a widening gender gap (World Economic Forum, 2021). Despite regional challenges, Pakistan's progress in standard of living, life expectancy, and education is notable (Li, 2022), revealing complex gender inequalities in the Pakistani context.

2.1. Technical and Vocational Education in Asia

Looking at the development trajectory of Asian countries can offer valuable insights and lessons on strategies that can be implemented to create decent and productive employment. These insights could be useful for Pakistan policy makers in developing effective employment policies and

programs. By studying the experiences of other countries in the region, Balochistan can identify successful approaches and best practices that can be adapted to its unique circumstances and challenges, ultimately leading to the creation of more and better employment opportunities for its skilled women. One crucial lesson drawn from East/South East Asia is the significance of implementing an industrial policy that targets sectors with potential for employment growth, as emphasized by Felipe-Lucia et al. (2015), Lin et al. (2015), and Mehrotra (2016). Various perspectives exist regarding the outcomes of Technical and Vocational Education and Training (TVET) in Asian countries, with government initiatives playing a pivotal role in these nations. Notably, the VET systems in Korea, Singapore, and Japan serve as exemplary models of mature systems, making substantial contributions to economic growth (Ali & Yao, 2004). Nonetheless, China's experience demonstrates the potential of TVET in driving economic growth and creating employment opportunities (Tang & Shi, 2017).

2.2. TVET in Pakistan

The TVET sector in Pakistan faces multifaceted challenges, including outdated curricula, inadequate training quality, weak governance structures, limited funding, industry disconnection, job scarcity, and negative perceptions of vocational education. Gender disparity is pronounced, with cultural barriers inhibiting women's participation. The sector's economic importance is significant. The establishment of the National Vocational Technical Education Commission (NAVTEC) in 2005 aimed to enhance TVET. Initially, technical roles were male-dominated, reflecting societal norms. In the context of globalization, Pakistan must leverage TVET to meet modern economic demands.

In the current era of globalization and the emergence of novel economic and societal paradigms, Pakistan grapples with an array of challenges. To effectively respond to the demands of contemporary economic currents, extant educational frameworks must adeptly harness the potential of TVET as an instrument to meet the requisites of globalization (Azeem, Omar, Rashid, & Abdullah, 2022). Training involves collaboration among institutions like polytechnics, private centers, and vocational establishments, as well as urban and rural development entities. Empowering women through TVET is pivotal for Baluchistan's economic growth, necessitating strategic skill development and human resource nurturing (Ahmed, Wadood, & Mohammad, 2020).

2.3. TVET Role in Promoting Women's Hands-on Skills

The role of Technical and Vocational Education and Training (TVET) institutes in enhancing women's hands-on skills and employability has gained scholarly attention (Smith, 2018). In the specific context of Quetta, Balochistan, TVET institutes play a crucial role in addressing gender disparities by equipping women with practical skills (Johnson & Williams, 2019). The importance of practical skills has considerably aided women's empowerment by allowing them to enter fields previously held by males, growing their self-confidence and self-esteem, and improving their access to job prospects. According to Minani and Sikubwabo (2022), the development of women's skills is a crucial driving force for economic growth and social progress in a country and is necessary to turn a country's vision of comprehensive development into a reality. Specifically, in Quetta district, the Vocational Skill Programs for women empowerment have enhanced the abilities of women in every walk of life. There is still more to be done in the area of girls' and women's vocational education in the respective trade and sector (M. Ahmed, Baloch, & Raza, 2022).

Recent research by Hojeij, Baroudi, and Meda (2023) highlights a persisting under-representation of females in the field of TVET. The study underscores the belief among women that vocational education equips them for a more promising future, whether in terms of career prospects or furthering their education. A well-defined (TVET) sector embodies coordinated, coherent and organized (TVET) authorities working under a proper hierarchy, accountable for the execution of their plans (IMRAN & MOHYUDDIN, 2017). The Ministry of Labor and Employment has formulated

national-level skills programs to orient the workforce and ensure Pakistanis' competitiveness in the global market (M. Ahmed et al., 2022). In the past few years, the focus has been on improving women's access to TVET, resulting in an increase in enrollment of women in fields like Engineering, which were previously dominated by men (Matenda, 2020).

To improve the current inadequate system of providing skills training by NAVTTC, more effective and dynamic programs that include both theoretical and practical components should be implemented to enhance the skill set of female trainees in various TVET fields (A. Ahmed, Wadood, & Mohammad, 2020). The emphasis of TVET should extend beyond addressing unemployment in formal sectors and encompass the development of highly skilled workers as well as the provision of re-skilling opportunities (Naziz, Das, & Sen, 2019)

2.4. Skilled Women's Self-Employability/Entrepreneur Startup

Women are becoming digital women, and they are achieving incredible things in their own right, not just managing family and work, but also contributing to the country's economic progress. Participating in entrepreneurship education improves the likelihood that students will want to start their firms, which eventually helps the nation develop by giving the younger generation access to the economy by developing their skills (Alvi & Tarar, 2021).

Despite facing obstacles such as family obligations and financial challenges, women have successfully defied societal norms and established their own identities (Manshani & Dubey, 2017). Women's entrepreneurship has emerged as a significant area of study (Terjesen, Bosma, & Stam, 2016). The findings of this study will be valuable in formulating policies that encourage the establishment of women-owned SMEs by identifying the challenges experienced by women entrepreneurs and identifying effective solutions in accordance with the country's level of development (Welsh, Tullar, & Nemati, 2016). Additionally, this study examines the role of venture capital investors, cultural factors, and gender in shaping women's entrepreneurial endeavors (Kuschel & Lepeley, 2016). Baird, Hamilton, and Constantin (2021) conducted a study on the importance of women studying and learning entrepreneurship, which revealed that entrepreneurship fosters personal development. Women from various social and economic backgrounds benefit from studying entrepreneurship as it enables them to develop unique skills and critical thinking abilities.

2.5. Empowerment through Skill Development: Gender Perspective

Empowerment through skill development represents a vital intersection of social and economic progress, particularly from a gender standpoint. Access to Technical and Vocational Education and Training (TVET) institutes is pivotal in enhancing gender equality and women's socio-economic autonomy (Kabeer, 2005). Skill acquisition empowers women to access diverse economic opportunities, transcending traditional gender roles. In Quetta, Balochistan, women's involvement in TVET programs offers a platform to challenge entrenched gender norms and promote financial independence. Contextually-tailored and gender-sensitive TVET programs equip women with practical skills aligned with market demands, extending empowerment to decision-making within households and communities (Buvinic et al., 2014; UNESCO, 2020). However, obstacles remain, including social norms restricting women's participation and mobility in certain industries (Naseer & Ahmed, 2019). Addressing these challenges necessitates holistic approaches that recognize the interplay between gender, skills, and social dynamics. This literature review delves into the intricate facets of empowerment through skill development from a gender perspective, specifically examining how TVET institutes contribute to enhancing women's agency and dismantling gender-based barriers in Quetta, Balochistan.

2.6. Success Factors of TVET Programs Enhancing Women Self Employability

TVET-qualified women in Baluchistan have demonstrated their significant contributions to income earnings by enhancing their general educational level. They actively participate in supporting household expenses, caring for their families and siblings, and utilizing various socioeconomic and demographic channels to integrate women into Baluchistan's economic and social structure (A. Ahmed et al., 2020). The implementation of TVET programs ensures positive labor market outcomes, such as improved job opportunities, human capital formation encompassing both general education and TVET skill acquisition, increased livelihood earnings, and assistance in household expenditure. These outcomes contribute to the overall enhancement of women's social, economic, and demographic statuses (A. Ahmed, Shakeel, & Khan, 2021).

To develop a good public image, TVET must be restructured through Public Private Partnerships, massively invested in, and consistently dedicated to the purpose of TVE, and ways to revamp TVET through PPP for skill development are all covered (Jane Itohan Oviawe, 2018). In most the economies of the world, institutional frameworks for skill development, Programs such as Technical and Vocational Education and Training (TVET) play a critical role in the development of human capital and human resources (A. Ahmed et al., 2020). By nurturing the acquisition of relevant knowledge and skills, as well as promoting training in essential real-world competencies such as critical thinking, problem-solving, communication, and lifelong learning, TVET endeavors to produce graduates who are well-prepared for the demands of the workforce (Jabarullah & Iqbal Hussain, 2019)

2.7. Factors Enabling Successful Skill Acquisition and Entrepreneurship

The acquisition of skills and entrepreneurship are intertwined dimensions of human development, bearing substantial influence on economic growth and individual empowerment. Within the context of Technical and Vocational Education and Training (TVET) programs, certain factors emerge as critical enablers for successful skill acquisition and subsequent entrepreneurial endeavors. Scholarly discourse underscores the significance of tailored and market-relevant training programs that equip individuals with skills directly aligned with industry demands (UNESCO, 2020). Such programs, when informed by industry input and integrated with experiential learning, offer learners the practical competencies needed for entrepreneurship (ILO, 2019). Additionally, building self-efficacy and confidence through training programs enhances the entrepreneurial mindset, crucial for venturing into new businesses (Naseer & Ahmed, 2019).

Nevertheless, challenges persist, including gender disparities, limited access to finance, and socio-cultural biases that hinder women's participation in entrepreneurial activities (Buvinic et al., 2014). Balancing the dichotomy of skill acquisition for both wage employment and entrepreneurship, especially in rapidly changing industries, presents another complex facet. This literature review delves into the multifaceted factors that enable successful skill acquisition and entrepreneurship, shedding light on the intricacies of their interplay within TVET programs. By identifying these factors, policymakers and educators can develop comprehensive strategies that equip individuals with the competencies and mindset required for successful self-employment ventures.

2.8. Challenges and Barriers Faced by Skilled Women

Navigating the landscape of Technical and Vocational Education and Training (TVET) programs in Balochistan reveals a complex web of challenges and barriers that skilled women encounter in their pursuit of education and empowerment. Scholarly discourse underscores the importance of recognizing and addressing these obstacles to ensure inclusive access and participation. Research highlights socio-cultural norms and traditional gender roles as prominent barriers, constraining women's mobility and autonomy in pursuing education and training (Naseer & Ahmed, 2019).

These norms perpetuate stereotypes that discourage women from enrolling in non-traditional fields, limiting their vocational options (UNESCO, 2020).

Economic disparities also pose challenges. High costs associated with education, training, and materials often impede women's enrollment, particularly those from marginalized backgrounds (Buvinic et al., 2014). Moreover, balancing domestic responsibilities with training commitments proves challenging, reinforcing the need for flexible training schedules and supportive policies (ILO, 2019). Gender-sensitive curricula that challenge norms and empower women with relevant skills are being integrated into programs (Naseer & Ahmed, 2019).

This literature review dissects the myriad challenges and barriers that skilled women face in accessing and participating in TVET programs in Balochistan. By comprehending these complexities, stakeholders can develop strategies that break down barriers, foster a gender-inclusive learning environment, and empower women to access the benefits of TVET education.

2.9. Economic Disparities Also Play a Role

Economic disparities significantly contribute to the hindrance of women's participation in Technical and Vocational Education and Training (TVET) programs. The financial burden associated with education, compounded by restricted access to credit and funding opportunities, creates substantial obstacles for women's engagement in pursuing TVET programs (ILO, 2019). Furthermore, the intricate challenge of balancing domestic responsibilities alongside training commitments poses a particularly persistent hurdle, especially in patriarchal societies (Buvinic et al., 2014). This comprehensive literature review critically assesses the underlying structural impediments that undermine the active involvement of women in TVET programs. By delving into the multifaceted nature of these challenges, stakeholders can formulate strategic interventions aimed at confronting and dismantling these barriers. The overarching objective is to cultivate an inclusive learning environment that empowers women, enabling them to comprehensively partake in skill development initiatives and entrepreneurial endeavors.

2.10. Socio-Cultural and Societal Challenges Impacting Skill Development

Societal perceptions that prioritize domestic responsibilities over skill acquisition further hinder women's participation in TVET programs (Buvinic et al., 2014). Moreover, the lack of supportive family dynamics and community backing can impede women's pursuit of education and training (UNESCO, 2020). These challenges intersect with broader societal dynamics. Economic disparities, prevalent in societies with unequal resource distribution, limit women's access to quality education and training (Naseer & Ahmed, 2019). Gender disparities in labor market participation are exacerbated by these socio-cultural norms, influencing the sectors in which women are encouraged to develop skills (ILO, 2019). However, there are examples of societal shifts. Initiatives that challenge gender stereotypes through awareness campaigns and community engagements, like the "Training and Employing Women" project, have demonstrated positive outcomes in altering perceptions and enhancing women's skill development prospects (Khan & Ahmed, 2020). Integrating gender-responsive strategies within TVET curricula is also a promising avenue for change (Naseer & Ahmed, 2019). This literature review delves into the socio-cultural and societal challenges that impact women's skill development within TVET programs. By comprehensively analyzing these dynamics, stakeholders can develop strategies that challenge cultural norms, create supportive environments, and promote skill development pathways that transcend traditional gender roles.

2.11. The Gap in the Literature and Explanatory Statement of the Assumption

Abundant natural and human resources grace Pakistan, yet in its ongoing growth phase, the significance of highly skilled human capital for national prosperity looms large. Evidently,

Pakistan's gender divide is exacerbating. The Technical Vocational Education and Training (TVE&T) entity's inception aimed to cultivate an adept workforce across industries. Regrettably, approximately 60% of the emerging labor force comprises under-skilled individuals from informal sectors, a consequence of TVE&T's inability to furnish competent labor. This deficiency partly stems from its inadequacy in catering to the economy's demands, compounded by the China-Pakistan Economic Corridor trade conflict.

The China-Pakistan Economic Corridor (CPEC), within the Belt and Road Initiative (BRI), seeks to expedite trade and nurture bilateral economic growth. This report sheds light on Technical Vocational Education and Training (TVET) in Pakistan. This study exposes TVET's deficiency in skilled labor, particularly women, attributed to obsolete infrastructure, weak industry ties, limited competencies, and elevated unemployment. Addressing this, we investigate TVET's impact on Quetta's women entrepreneurs (Khan & Ahmed, 2020), bridging knowledge gaps on success factors, challenges, and perceptions. Growing women's labor-force involvement confronts institutional and societal barriers (Talento et al., 2022). Professionalizing women through TVET enhances economic participation (Yadav, Babra, & Yadav, 2022). TVET programs empower women, augmenting self-employment opportunities through skill empowerment.

THEORETICAL FRAMEWORK

3.1 Human capital Theory

The aim of this study is to assess the effectiveness of national investment in Technical Vocational Education and Training (TVET) in promoting individual social inclusion. By implementing a range of alternative training programs within the TVET framework and enhancing stakeholder engagement in identifying market-driven and competency-based training initiatives, increased investment in TVET enables governments to diversify their human resource development investments while ensuring the quality of TVET programs. Policymakers can justify their support for individuals' participation in education based on the human capital theory, which provides an economic rationale (Gale & Molla, 2015). According to the human capital hypothesis (Gebel & Heineck, 2019), individuals who improve their skills, knowledge, and attitudes are more likely to acquire and retain relevant occupations. Following the human capital principle, vocational education and training transforms learners into human capital, empowering them to actively shape the workplace and society (Bohne, Eicker, & Haseloff, 2017).

The Human Capital Theory posits that investments in education and skills yield heightened economic productivity. In the context of Balochistan, the strategic emphasis on enhancing skilled women's self-employability through Technical and Vocational Education and Training (TVET) programs is intrinsically congruent with this theoretical framework. The facilitation of women's acquisition of pragmatic proficiencies engenders not only entrepreneurial impetus but also augments economic expansion, concurrently dismantling entrenched gender constraints. The empirical investigation herein undertakes an evaluation of the impact of skill acquisition on self-employability, thereby corroborating the foundational tenets of the theory. Furthermore, it furnishes policy directives to amplify women's economic participation, concurrently challenging established gender paradigms. Succinctly encapsulating in 100 words, the theory substantiates Balochistan's endeavors to empower women with self-employment aptitudes, harmonizing with the core underpinnings of enhancing human capital to engender economic amelioration.

3.2 Theory of Entrepreneurial Bricolage

This research contributes to the emerging paradigm of entrepreneurial bricolage by highlighting the successful self-employment of women. The insights gained from these findings have the

potential to benefit other fields of study, such as entrepreneurship and project management. Lessons learned from the creative industries, where individuals often confront dynamic and uncertain environments, can provide valuable knowledge and strategies for these disciplines (Senyard, Davidsson, & Steffens, 2015).

There is evidence to suggest that bricolage can be particularly effective for women entrepreneurs, who often face unique challenges when it comes to accessing resources and capital. Skilled women's self-employability can be supported through the use of bricolage as a problem-solving approach, particularly when resources are limited and time is short. To use bricolage successfully, women entrepreneurs must have an intimate knowledge of their available resources and be observant, creative, and open to new ideas (Weick & Sutcliffe, 2001). By learning from feedback and being willing to experiment and take risks, women entrepreneurs can navigate the entrepreneurial process with greater agility and adaptability. Entrepreneurial bricolage has emerged as a critical factor in fostering new venture growth within the Pakistani economy. The positive correlation between entrepreneurial bricolage and the growth of new ventures can be ascribed to various key factors. For starters, business bricolage can boost the originality of opportunity generation. The distinctiveness and ability to satisfy a market demand are what give an opportunity its worth. New enterprises can offer unique products or services to current markets or even establish new markets by combining resources in novel and inventive ways. This enables businesses to identify and generate possibilities before their competitors, providing them with a competitive advantage.

RESEARCH METHODOLOGY

The data for this study was collected from five Technical and Vocational Education and Training (TVET) institutions situated in Quetta, Balochistan. A mixed methods research approach was adopted to examine the skilled women self-employability and the impact of TVET programs in Balochistan. This research design allowed for a more comprehensive and robust exploration of the research problem and questions, drawing on the principles outlined by Cohen et al. (2000) and Rahi (2017). The data collection process was conducted concurrently. Initially, public and private TVET institutions were purposefully selected from the "BTEVTA" institutional ranking, which categorized them into diploma and certification courses. The selected institutions for this study encompassed the Government Girls Polytechnic Institute, Saryab Road (GGPI) in Quetta, the Women Technical Training Center in Quetta, the Government Vocational Institute Quetta, the Social Welfare Institute Nawa Killi, and the Women Technical Center Jinnah Town, Quetta. To ensure a representative sample, a systematic random sampling method (Hibberts, Burke Johnson, & Hudson, 2012) was employed. This method aimed to provide an equal chance of selection for both currently enrolled and graduated TVET students, irrespective of whether they pursued a diploma or certification. The study encompassed various skill programs, including the TVET Regular Course, CBT course, NAVTTC Session, UNHCR session, and diplomas, ranging from a minimum six-month certification course to three diplomas. Individual visits were made to the respective institutions, and students were invited to participate, resulting in a total of 368 diploma and certificate holders being involved in this study.

4.1. Research Design

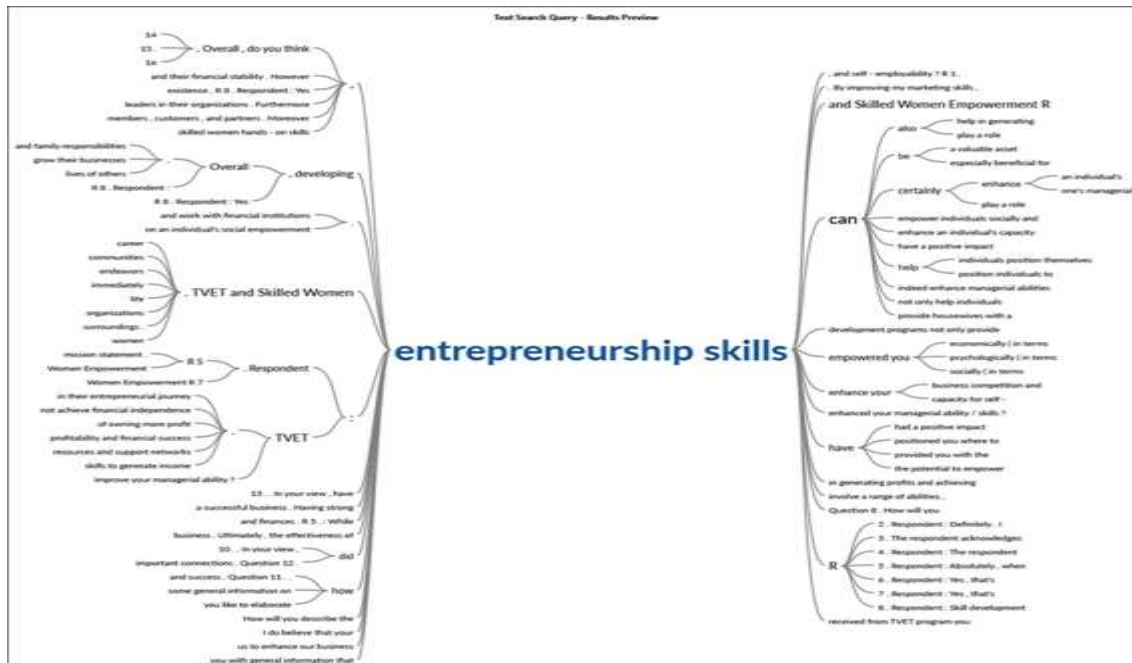
In this study, a mixed methods approach was employed, and additional insights into the disparities in skills between diploma and certification courses were gathered through semi-structured interviews. Purposive sampling was used to select interviewees, including TVET female participants, TVET women entrepreneurs, and TVET experts. The sampling strategy was carefully chosen to align with the recommendations of Cohen et al. (2000) regarding the methodological and instrumental suitability of a study. The selected sites or individuals were considered notable or

exceptional in some aspect (Mertens, 2014), leading to the inclusion of participants from diverse technical backgrounds, as well as entrepreneurs and experts engaged in business research activities. Notable individuals such as the Director of SAMEDA, Director of NIC, BUITEMs, Director of NAVTTC, and Principals of TVET institutes were among those selected for participation in this study and its interviews. The qualitative data obtained through these interviews complemented the quantitative data by providing a deeper understanding and addressing the research questions, capturing the intricacies of skilled women's self-employability and the role of TVET in job creation. The interview process concluded when the researchers reached data saturation, indicating that further interviews no longer contributed significantly to the study. A total of 27 semi-structured interviews were conducted across three tiers, involving TVET female graduates, TVET skilled women entrepreneurs, and experts.

4.2. Conceptual Model for the Study

Model 1 represents a Word Tree Map that visually delineates the thematic framework employed in the study. It serves as a conceptual model, elucidating the intricate dimensions under investigation. Specifically, the model elucidates the twin dimensions encompassing the role of TVET institutes in fostering women's hands-on skills in Quetta, Balochistan, while concurrently spotlighting the challenges and barriers encountered by skilled women in their pursuit of accessing and actively participating in TVET programs within the region of Balochistan.

Figure 1. An Empirical Model of the Study



The empirical model of the study is based on findings although; the framework is self-explanatory to avoid any ambiguity, antecedents, and consequences. This model gives us a rigorous understanding of this study. Our findings-based model is showing how do enrolled and pass out women perceive regarding TVET institutes' role in promoting their self-employment skills in Quetta, Balochistan? Next, what are the factors that contribute to the success of TVET programs in enhancing the self-employability of skilled women in Balochistan? It illustrates the relationship skilled women's self-employability and TVET Programs in Balochistan. Data were collected from TVET graduates. It illustrates the relationship skilled women's self-employability and TVET Programs in Balochistan. Data were collected from TVET graduates.

4.3. Quantitative Data Collection and Procedures

Quantitative data for the RASTA project were collected through the distribution self-administered surveys to a total of 420 enrolled and graduated TVET students. Out of the returned questionnaires, 381 were received, and after careful evaluation, 368 were deemed complete and suitable for analysis. Descriptive statistics, such as frequencies and percentages, were computed using SPSS version 26.0 to summarize the quantitative variables. Both qualitative and quantitative data sources were utilized in this research to provide comprehensive insights. The research questions were addressed through a descriptive analysis of the collected data. Survey data were analyzed using Microsoft Excel.

Table 4-1 presents an overview of the demographic characteristics of the respondents, including their gender, marital status, age, qualifications, experiences, types of skills, and program. It is essential to highlight that the data collection exclusively focused on female participants (n=368) due to the focus of the study on TVET programs for women's development. Among the female respondents, 47.3% were below the age of 25, 24.5% were aged between 25 and 35, 10.3% fell within the age range of 36 to 45, and 13% were between 46 and 55 years old. Only 4.9% of the female respondents were above the age of 55. Regarding educational qualifications, the distribution among the female respondents was as follows: 16.8% held a Matric degree, 32.9% had completed Intermediate education, 18.8% possessed a Bachelor's degree, and 31.5% had achieved a Master's level qualification. In terms of work experience, 51.5% of the female respondents had less than 5 years of experience, 27.2% had between 6 to 10 years of experience, and 9.8% had 11 to 15 years of experience.

In relation to marital status, the majority of women participants in the study were found to be single (64.9%). In terms of employment sectors, 53.3% of the respondents were employed in the private sector, 23.6% in the public sector, and 23.1% in the semi-government sector. Examining the types of skills possessed by the women surveyed, the most prevalent skill reported was dress-making skills, accounting for 27.2% of the respondents.

Table 4-1: Respondents' Profile Statistics

Category	No. of Respondents	(%)
Gender		
Female	368	100
Age (years)		
Less than 25	174	47.3
25-35	90	24.5
36-45	38	10.3
46-55	48	13
Above 55	18	4.9
Qualification		
Matric	62	16.8
Intermediate	121	32.9
Bachelors	69	18.8
Masters	116	31.5
Experience in years		
Below 5	188	51.1
6-10	100	27.2
11-15	36	9.8
16-20	33	9
Over 20	11	3

Marital Status		
Single	239	64.9
Married	102	27.7
Divorced	22	6
Widow	5	1.4
Sector		
Public Sector	87	23.6
Private Sector	196	53.3
Semi-Government	85	23.1
Types of Skills		
Computer Application	81	22
Office Management	60	16.3
Dress Making	100	27.2
Beautician	82	22.3
Cooking	45	12.2
Types of Program		
TVET Regular Course	71	19.3
CBT Course	93	25.3
NAVTC Session	98	26.6
UNHCR Session	45	12.2
Diploma	61	16.6

Table 4.2 indicates that the gender variable exhibits a maximum value of 1, representing one gender category, and a minimum value of 0, which means that all the respondents were females. Moreover, the mean values for the variables vary from 0.000 to 3.82, and the standard deviation varies from 0.000 to 1.33 for the variables.

Table 4.2: Descriptive Statistics for the Demographic of Participants

	Minimum	Maximum	Mean	Std. Deviation
Age	1.00	5.00	2.0380	1.24128
Gender	.00	.00	.0000	.00000
Experience in years	1.00	5.00	1.8560	1.10408
Qualification	1.00	4.00	2.6495	1.09467
Marital Status	1.00	4.00	1.4375	.66963
Sector	1.00	3.00	1.9946	.68457
Types of Skills	1.00	5.00	2.8641	1.31974
Types of Programs	1.00	5.00	2.8152	1.33434
HS	1.86	5.00	3.7077	.60619
ES	2.43	5.00	3.7451	.50339
EG	2.00	5.00	3.8216	.57619

4.4. Qualitative Data Collection and Procedures

To gain a comprehensive understanding of the phenomenon being examined, in-depth interviews were conducted with participants from the TVET program. These interviews served as a platform for in-depth exploration and discussion. The interviews centered around a range of topics, including the specific skill sets demanded by women in Balochistan across various sectors, skills that can facilitate the expansion of Small and Medium Enterprises (SMEs), and self-employment. Additionally, discussions delved into the role of TVET in cultivating skills to support the growth of SMEs, along with identifying specific measures required for enhancing self-employment opportunities.

The interview questions were formulated based on existing literature and the findings obtained from the TVET skilled women questionnaire. The interviews were conducted face-to-face and scheduled at the convenience of the participants to ensure the collection of relevant data (Mitchell et al., 2020). A list of questions was prepared by the researcher to guide the interviews, although not all questions were addressed in each interview to allow for flexibility (Gabriel, Gray, & Goregaokar, 2013). Each interview had an average duration of 40 minutes, ranging from 30 to 45 minutes. Sample interview questions included: "In your perspective, how have practical skills improved your access to employment opportunities? In what ways have they enhanced your capacity for self-employment? If yes, please provide a detailed explanation." Another question posed was: "How would you describe the entrepreneurship skills you acquired from the TVET program you attended? Did these skills enable you to identify business ideas and perceive them as potential opportunities?"

Prior to data collection, the researcher secured informed consent from the participants by employing a suitable consent form. To ensure the validity and reliability of the measurement instruments, a pilot study was carried out, employing Cronbach's alpha analysis. This pilot study involved 20 graduates from the TVET program who completed the questionnaire and provided feedback on its content and structure. The data obtained from the questionnaires were then entered into SPSS version 26.0 for subsequent analysis.

4.5. Qualitative Data Analysis

Qualitative data analysis was conducted using NVivo 11. An inductive approach was employed, applying a thematic analytical framework to examine the data in alignment with the research objectives. Thematic analysis was performed to identify and extract key themes from the data obtained through the semi-structured interviews, thereby providing deeper insights that complemented the survey responses. The ethical considerations outlined in the manual of the American Psychological Association (APA) were strictly adhered to throughout the research process. This included obtaining informed consent from participants, ensuring their voluntary participation, and safeguarding the confidentiality and anonymity of respondents' identities in accordance with survey research ethics.

Focus group discussions were conducted with enrolled students studying at selected TVET institutes in Quetta. This method was specifically chosen due to its suitability for business studies, as it enables a more focused exploration of specific topics. The moderator of the focus group sessions introduced the discussion and provided a clear explanation of the purpose of the questions. Prior to the commencement of each focus group, the presence of audio recording equipment was acknowledged, and participants were reassured about the confidentiality of their responses. They were also given the option to withdraw from the discussion if they felt uncomfortable with being recorded.

The collected data underwent a thorough analysis using thematic analysis, a widely employed method in qualitative research. The thematic analysis comprised three key steps: transcription of the data, converting the recorded information into a textual format; coding the extracted information; and finally, processing the data. For this qualitative study, NVivo 11 software, as described by Davidson, Thompson, and Harris (2017), was employed for efficient and systematic data processing and analysis. The usage of NVivo software has gained significant traction within the field of qualitative research due to its effectiveness and precision in qualitative data analysis, as highlighted by Woods, Paulus, Atkins, and Macklin (2016). The findings of the study are presented in the form of hierarchy charts, which visually depict information as a series of nested rectangles with varying sizes. The size of each rectangle corresponds to the amount of data contained within the respective node. Larger rectangles indicate nodes with a greater volume of data, while smaller rectangles signify nodes with comparatively less data. Consequently, the space occupied by each

node within the graph is determined by the size of the corresponding rectangle, effectively representing the distribution and significance of the data. Semi-structured interviews with enrolled and pass-out skilled women of TVETs that were one on one and in-person interviews were conducted in Urdu. Interviews were recorded with an audio recording device with prior permission. After conducting the interview, the text was transcribed from Urdu to English. To become familiar with the main pattern meaning and contradiction, interview transcripts were reviewed and re-read.

Table 4-3 shows the semi-structured interviewed enrolled and pass-out-skilled students' demographic characteristics and educational profiles in TVET programs. Table 3-1 presents coded names, gender, specific technical or vocational trades pursued, duration of the programs, and institutions attended by each student. Table 4-1 also presents the diverse range of enrolled and pass-out-skilled women participants in the TVET sector, such as dressmaking, computer application, fine arts, beautician, cooking, and office management. The analysis provides valuable insights into the distribution and representation of participants across different TVET programs and institutions. It significantly contributes to enhancing our understanding of the TVET landscape and its impact on women's skill development and empowerment. These findings help shed light on the effectiveness of TVET initiatives and provide a basis for further discussions and interventions aimed at promoting gender equality and women's empowerment in the context of skill development.

Table 4-3 Semi-Structured Interviewee Enrolled and Pass-Out-Skilled Women's Demographic Information

S/o	Coded Name	Gender	Technical/ Vocational	Trades	Duration	Institution
1	Student1	F	Technical	Dress Making	3 Years	GGPI (Saryab Road)
2	Student2	F	Technical	Computer Application	3 Years	GGPI (Saryab Road)
3	Student3	F	Vocational	Dress Making	6 Months	BWBA(NGO)
4	Student4	F	Vocational	Beautician	6 Months	GVI (Sirki Road)
5	Student5	F	Vocational	Cooking	6 Months	AWTTC(Samungli)
6	Student6	F	Technical	Fine Arts	3 Years	GGPI (Saryab Road)
7	Student7	F	Vocational	Beautician	6 Months	SWTC (Nawa Killi)
8	Student8	F	Vocational	Dress Making	6 Months	GVI (Sirki Road)
9	Student9	F	Technical	Office Management	3 Years	GGPI (Saryab Road)

Table 4-4 shows the semi-structured interviewed skilled women entrepreneurs' demographic characteristics. Table 3-3 presents coded names, gender, qualifications, years of experience, and designations of the participants. Table 3-4 also presents the diverse group of entrepreneurs, educational backgrounds, and extensive professional experiences including both male and female participants. The demographic statistic provides valuable insights into the diverse profiles and expertise of skilled women entrepreneurs and shows their educational achievements, extensive experience, and leadership roles within the entrepreneurial ecosystem (see Table 4-4).

Table 4.4. Semi-Structured Interviews of Skilled Women's Entrepreneurs' Demographic Information

S. N	Coded Name	Start-Up Name	Qualification	Experiences	Designation
1	Women	The Riders	TVET Graduate	More than 6	Founder &

	Entrepreneur 1	pvt Ltd company		years	CEO
2	Women Entrepreneur 2	AL-Buraaq enterprises	BS Entrepreneur	More than 5 years	Founder & CEO
3	Women Entrepreneur 3	Plates of Flavor	TVET Graduate	More than 8 years	Founder & CEO
4	Women Entrepreneur 4	Uraan Consultancy Services	M.BA	More than 5 years	Founder & CEO
5	Women Entrepreneur 5	Iffat Training Center	TVET Graduate	More than 8 years	Founder & CEO
6	Women Entrepreneur 6	She Bakes	TVET Graduate	More than 10 years	Founder & CEO
7	Women Entrepreneur 7	Raqs-e-Rang studio	BS Fashion Design	More 5 years	Founder & CEO
8	Women Entrepreneur 8	Diamanté By Sœurs	Business Graduate	More than 9 years	Founder & CEO

Table 4-5 shows the semi-structured interviews of experts' demographic characteristics. Table presents coded names, gender, qualifications, years of experience, and designations of the participants. Table 3.5 displays the profile of interviewees, which includes information of their diverse group of experts, educational backgrounds, and extensive professional experiences including both male and female participants. The demographic statistic provides valuable insights into the diverse profiles and expertise of experts and shows their educational achievements, extensive experience, and leadership roles within the entrepreneurial ecosystem. A total of 10 male and female experts participated in interviews (see Table 4-5).

Table 4.5. Semi-Structured Interviews of Experts' Demographic Information

S. N	Coded Name	Gender	Qualification	Experiences	Designation
1	Mr. Shakoor Ahmed	Male	M.BA (UK)	More than 15 years	Director SMEDA
2	Mr. Moh Shah	Male	MS Business	More than 8 years	Director NIC(BUITEMS)
3	Mr. Gulam Raza	Male	TVET Graduate	More than 17 years	Director (NAVTEC)
4	Mr. Shohaib Sherazi	Male	M.BA	More than 15 years	Principal GVI & Expert GIZ
5	Ms. Ghazal Nagi	Female	M.BA	More than 5 years	Master Trainer GIZ
6	Ms. Arifa Ali	Female	Graduate	More than 15 years	Principal GGPI(Saryab)

7	Ms. Zareena	Female	Graduate	More 12 years	Principal GVI (Sirki Road)
8	Mr. Faisal	Male	M.BA	More than 10 years	Expert GIZ
9.	Mr. Zaheer	Male	Business Graduate	More than 10 years	Trainer GVI (Sirki Road)
10	Ms. Deedar Aman	Female	Graduate	More than 15 years	DOCH (Pvt) Ltd Founder& CEO

Table 4.6 shows the focused group discussion of enrolled and pass-out skilled females' demographic characteristics in Technical and Vocational Education and Training (TVET) programs. Table 3.6 displays the profile of interviewees, which includes information on their coded names, gender, qualifications, years of experience, and designations of the participants. Table also presents the diverse group of skill program categories, specific trades pursued, duration of the program, and the institution attended. The demographic statistic provides valuable insights into the diverse range of participants engaged in various skill programs, such as beautician, dressmaking, computer application, and cooking, with program durations ranging from 6 months to 1 year. A total number of 8 participated in the focus group discussion (see Table 4.6).

Table 4.6. Focus Group Discussion Enrolled and Pass-Out Skilled Students' Demographic Information

S/o	Coded Name	Gender	Skill Program	Trades	Duration	Institution
1	Student 1	Female	Regular course	Beautician	6 Months	GVI (Sirki Road)
2	Student 2	Female	Navtic session	Dress Making	6 Months	GVI (Sirki Road)
3	Student 3	Female	Regular course	Computer Application	6 Years	GVI (Sirki Road)
4	Student 4	Female	CBT Course	Dress Making	6 Months	GVI (Sirki Road)
5	Student 5	Female	Navtic session	Computer Application	6 Months	GVI (Sirki Road)
6	Student 6	Female	UNHCR Session	Dress Making	6 Months	GVI (Sirki Road)
7	Student 7	Female	CBT Course	Cooking	6 Months	GVI (Sirki Road)
8	Student 8	Female	Regular course	Beautician	6 Months	GVI (Sirki Road)

4.6. Ethical Considerations

When doing research in an "academic group micor professional setting," "one must be knowing of the ethics in the study activities" (Driscoll & Fowler, 2011). According to Creswell et al., (2011) ethics should be a high priority rather than a secondary consideration, and it should be at the top of the researcher's priority list. Ethical issues rise at all levels of the research plan (Becker, Bryman, & Ferguson, 2012) in particular while managing human subjects (James & Busher, 2007). The researcher followed the rule and regulations which are set by PIDE (RSTA PROJECT) authorization to direct interview for research purpose was sought from the related authorities at TVETs insitutes of Quetta. The research participants were informed before the interview via phone, email, or

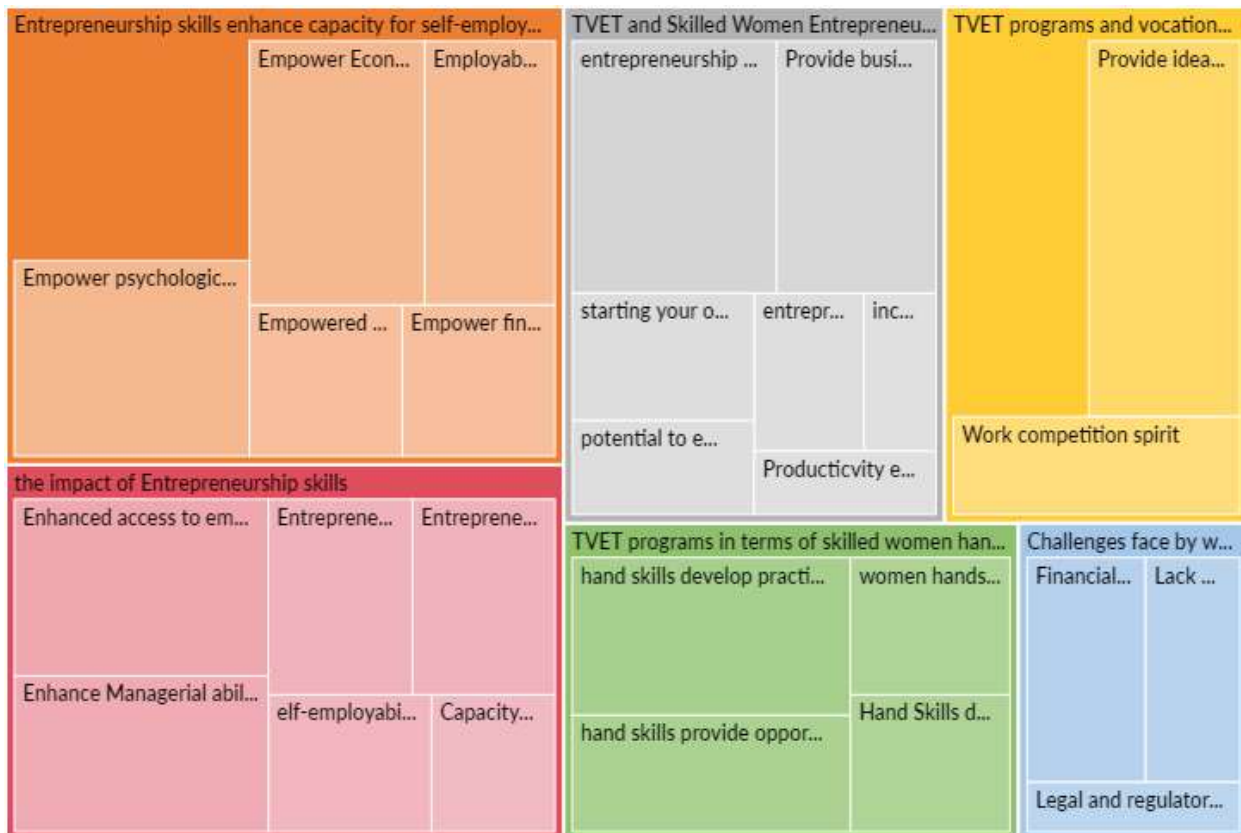
WhatsApp numbers. The TVET sector enrolled/passout female student, TVET business entrepreneur and TVET experts were approached before the interview schedule and were informed about research topic and objectives. A semi structure interview and focused group interview questionnaire was utilized to direct the interviewees. All interviews were recorded with the recording device. On off chance that any participant felt uneasy with the recording device and then memo note taking strategy was utilized. People are not identified or identifiable (Becker et al., 2012) Responses from individuals was saved privately.

RESULTS

5.1. Introduction

The chapter includes results and discussion. This chapter contains the study's empirical results with various descriptive tests. The result includes the hierarchy chart of the findings of the study, Word Tree Map results and Word Tag Cloud. Further, it includes the analysis and discussion of the study. Hierarchical charts represent the study findings. A hierarchy chart, in general is a graph that presents data as a set of established rectangles and vary in size. For instance, dimensions of rectangles display node data. Nodes grow in size as more data is stored within them. Similarly, fewer data results in nodes with lower sizes. Depending on their sizes, each node occupies space in graph. This hierarchy chart fulfilling all objectives of study.

Figure 2. Hierarchy Chart for Findings of the Study



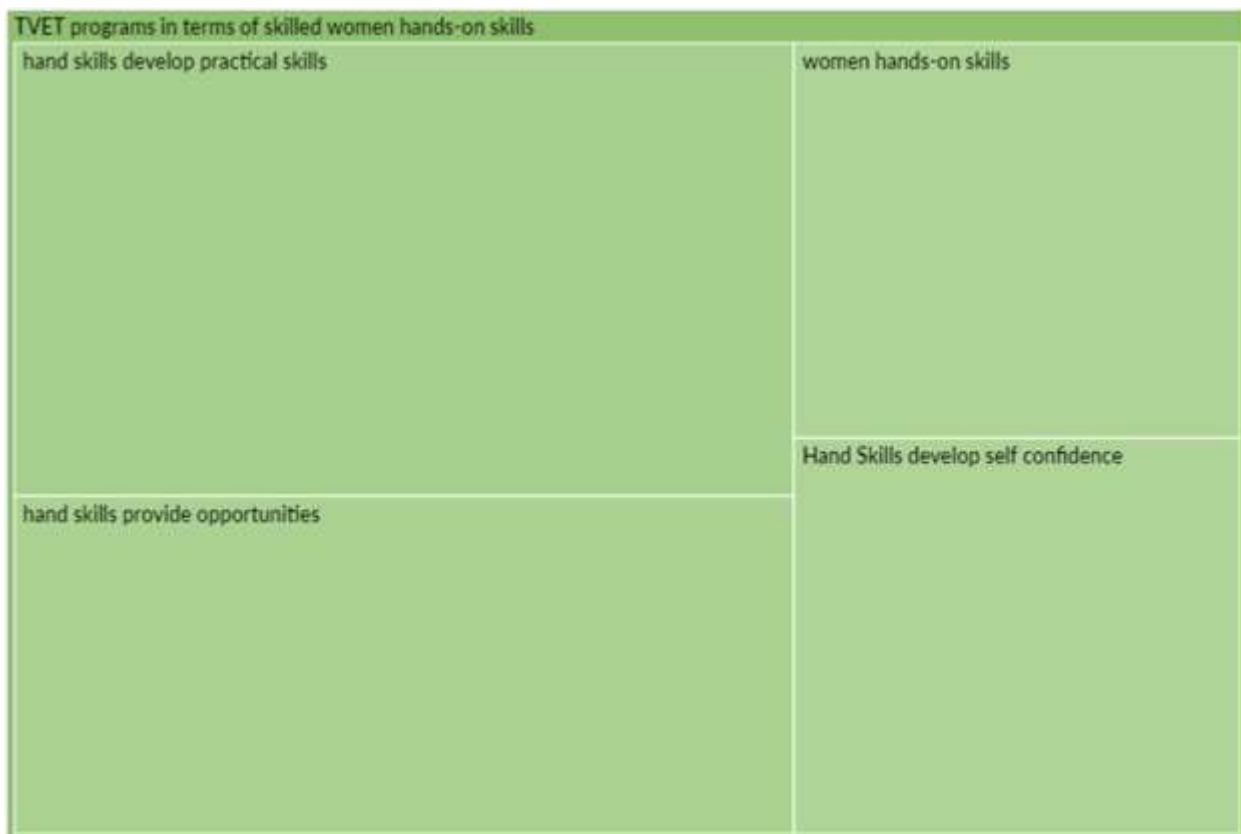
This hierarchical chart effectively fulfills all the objectives of the study, elucidating the determinants of skilled women's self-employability and the impact of TVET programs in Baluchistan.

5.2. Theme1: TVET Skilled Women Hands-on Skills

Data from the interviews and field notes indicated that TVET helps women maintain their families, enhance their quality of life, and participate actively in decision-making. The study finding revealed the pivotal role of TVET in cultivating women's hands-on skills, rendering them adept in technical domains. This proficiency not only augments their employability but also underpins their entrepreneurial pursuits, enabling them to engage in ventures aligned with their acquired expertise. Concurrently, TVET emerges as an instrumental conduit for the development of entrepreneurial skills among skilled women. The assimilation of entrepreneurial acumen enables women to effectively navigate the complex landscape of business initiation and sustenance.

TVET program in terms of women's hands on skill; most interviewed participants perceived that women in Baluchistan had developed hand-skilled behaviors. They have opportunities thanks to their hand skills. They have access to numerous sectors, and even women in tribal and underprivileged communities are successful entrepreneurs.. A lot of women produce goods that are significant both domestically and abroad. Women of Baluchistan are incredibly talented in creating handmade goods, including carpet weaving, painting, embroidery, and other handicrafts. These products are sold in both domestic and foreign markets, providing them with a strong source of money and showcasing their business abilities.

Figure 3. TVET Role in Women's Hands on Skill



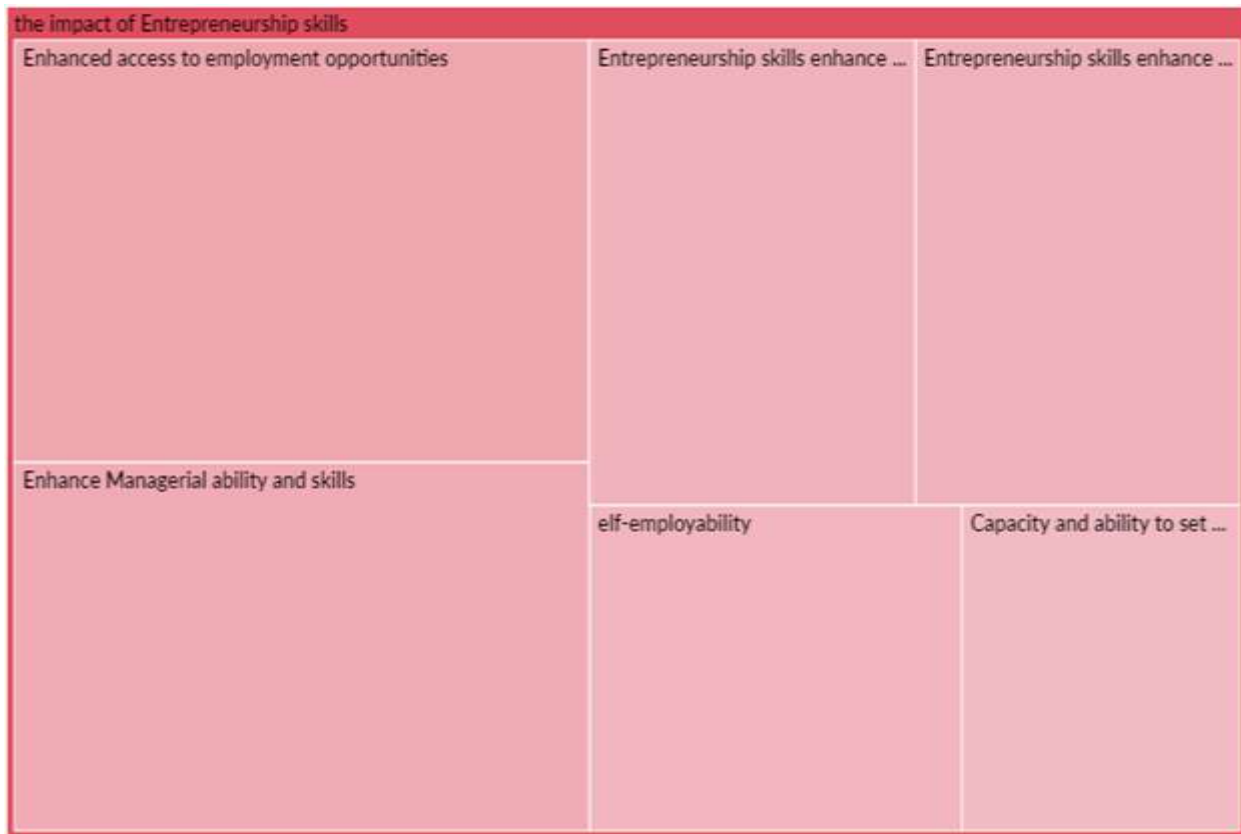
5.3. Theme 2: TVET Skilled Women Entrepreneurship Skills

Our findings suggest that The TVET programme also provided with invaluable advice on how to launch a business. They gave advice on how to work on my business idea and make the best use of the resources I have. Entrepreneurial skills needed to succeed in self-employment can undoubtedly be aided by entrepreneurship knowledge. Effective communication, decision-making, money

management, marketing, and networking are a few examples of these abilities. The effectiveness of these skills in boosting self-employment capacity ultimately depends on the individual and the particular challenges they encounter during their entrepreneurial journey.

Most interviewed participants noted that general education, skill development, and social and cultural support all play important roles in women becoming entrepreneurs in many areas of their lives. It additionally strengthens and highlights the value of TVET skills in a variety of situations where skill acquisition has an impact on individuals' socioeconomic development. The growth of rural communities' incomes has been greatly influenced by this training. Also, *ceteris paribus*, it was discovered that these educational and training-based initiatives had a positive impact on productivity and poverty issues. The Vocational Training Program is intended for women who are socially disadvantaged and who live in the domestic sector. Vocational Training programmes are aimed at the livelihood chances of women. These initiatives help women enhance their entrepreneurial talents. Most interviewed participants noted that general education, skill development, and social and cultural support all play important roles in women becoming entrepreneurs in many areas of their lives. Most interviewed participants noted that TVET programmes offer ideas and a culture of working rivalry. With education and skill development, women's competence and productivity in the market can be improved. A very important role can be played by offering a skill-improving system.

Figure 4. Entrepreneurship Skills Enhance Capacity for Self-Employment



5.4. Theme 3: TVET: Entrepreneurship Skills and Skilled Women Empowerment

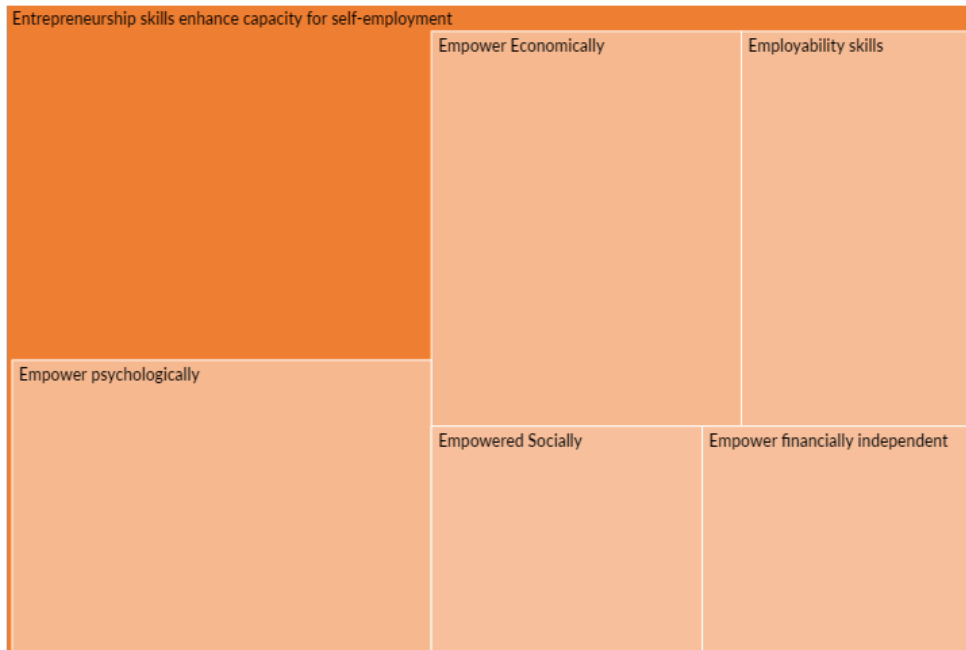
Our study finding indicated that entrepreneurship skills can be especially beneficial for housewives looking to contribute to the economy and increase their earning potential.

The economic, psychological, and social empowerment of skilled women emerges as a pivotal outcome. This empowerment emanates from their augmented participation in entrepreneurial activities, resonating across familial and societal spheres. It is notably discerned that skilled women are instrumental in poverty alleviation, engendering economic upliftment in their communities. Additionally, their influence extends to positively shaping the health and educational trajectories of their children, thereby fostering holistic social advancement. Moreover, the research accentuates the intrinsic link between TVET and the empowerment of women, which reverberates throughout economic, psychological, and social dimensions. It serves as a catalyst for the dismantling of traditional gender roles, affording women enhanced agency in economic activities and augmenting their contributions to the wider societal fabric. This empowerment, in turn, fuels the propagation of gender equality principles by challenging normative paradigms.

Most interviewed participants perceived that in the majority of the economies of the world, the entrepreneurial development of skills, such as technical and vocational training (TVET), is crucial to the construction of human capital and the development of human resources. TVET is crucial for a society's economic and social growth. It increases employment opportunities, earning potential, personal and social returns, and many other socioeconomic factors that influence the economy. With sustainable development goals for both genders of a society, community, population, economy, and emerging countries of the world, TVET's importance for socio-economic and demographic development has also been recognized. Interviewees referred to the situation in the following comments: TVET programs are essential for developing skills that lead to employment, self-employment, and entrepreneurship. (Interviewed Respondent 00)

The respondent gave a thorough explanation of TVET as a framework for education and training that includes all learning levels and styles. They clarified that TVET strives to provide people with the information and skills required for numerous vocations in many economic and social sectors. These learning techniques can be official, non-formal, or informal, and they can be used in both work and educational settings.

Figure 6. Role of TVET in Women Empowerment



5.5. Theme 4: Challenges in the Pursuit of Success: Barriers Faced by Skilled Women in Balochistan

Despite the transformative potential of TVET, a spectrum of challenges impedes the trajectory of women entrepreneurs. The dearth of formal education and managerial proficiency curtails their capacity to navigate the intricate facets of business operations. Moreover, constrained financial support further exacerbates their predicament, restraining their ability to actualize entrepreneurial ventures. These challenges are compounded by a lack of family support, suboptimal self-confidence, and diminished communicative competencies, which collectively engender a milieu of barriers.

Furthermore, a pronounced scarcity of women-owned Small and Medium Enterprises (SMEs) is noted, indicative of prevailing disparities. The integration of entrepreneurship education within formal education systems is found to be inadequate, inhibiting the cultivation of an entrepreneurial mindset from an early educational juncture. An underlying theme underscored is the imperative of achieving work-family balance. The study illuminates the role of empowered women entrepreneurs as catalysts for transformative societal change. The attainment of equilibrium resonates beyond personal spheres, contributing to the amelioration of gender disparities and the cultivation of progressive social paradigms.

Most interviewees reported that the majority of respondents experience financial difficulties, while some also experience a lack of prospects and just a small number experience issues with legal and regulatory administration. A financial crisis can indeed make it difficult to launch a firm; in these circumstances, having access to grants and loans can be beneficial.

Women who are financially independent are more likely to be socially outgoing and self-assured, which makes it possible for them to successfully contribute to family companies or succeed in their careers. She makes risky choices and thoughtfully considers business and family issues. Women can increase their sense of empowerment and self-worth by learning entrepreneurial skills. Financially independent women can also be role models for their children and help eliminate the gender biases that are deeply embedded in our society. As a result of their expertise in managing their businesses, skilled women are frequently very social and have strong communication abilities. Entrepreneurship abilities can significantly increase financial support for Women in business that might benefit financially from entrepreneurial abilities to become financially independent and build a steady source of income. Successful commercial endeavours can give women financial power and a sense of independence and autonomy.

Figure 7. Challenges Faced by Women TVET Skilled Women



The word tag cloud presents a visualization of the study's most frequently used words, showcasing their repetition and highlighting thematic patterns. The tag cloud emphasizes the most commonly used words by representing them in larger font sizes, while less frequently used words are displayed in smaller font sizes. This visual representation aids in understanding the prevalent themes within the study.

Figure 8. The Word Tag Cloud Presents a Visualization of the Study



RESULTS AND DISCUSSION

This project involves the views and analysis of the different scholars and their comparison with the views of the teachers on the issue of cluster system. Qualitative data were obtained from female TVET skilled women, entrepreneurship, TVET expert through semi-structured on the following: TVET institutes' role in promoting women's hands-on skills, success factors of TVET programs in enhancing the self-employability of skilled women, the perceptions of enrolled and pass-out women regarding TVET institutes' role and the challenges and barriers that skilled women face in accessing and participating in TVET as well as strategies used to cope with conflict between work.

6.1 A Glimpse of Female Students Pursuing TVET

The participants in this study were 368 female students studying at TVET institutions of Quetta. Descriptive statistics were used to provide a slight insight of the student population. The data presented in the table 1 below notes the participants' perceptions regarding the contribution of hands-on skills to their capacity for self-employment. The analysis highlights a notable consensus among participants, with a significant majority (76.8%) acknowledging that hands-on skills hold a positive influence in enhancing their potential for self-employment. This affirmative sentiment is distributed between "agree" (49.0%) and "strongly agree" (23.2%) responses. Conversely, a combined 5.8% of participants expressed disagreement, comprising 3.9% who disagreed and 1.9% who strongly disagreed. Moreover, 21.9% of participants adopted a neutral stance, indicating a lack of alignment with the notion that hands-on skills directly fortify their self-employment prospects. In summary, a substantial number of participants recognize the pivotal role of hands-on skills in bolstering their aptitude for self-employment, underscoring the perceived significance of practical skills as catalysts for fostering entrepreneurial endeavors.

Quantitative findings show that TVET institutes in Quetta have been able to develop entrepreneurship skills among women working in those institutes. A significant majority of women

participants expressed agreement that the entrepreneurial skills acquired through TVET institutes have enabled them to identify business ideas and evaluate them as potential opportunities. Furthermore, these entrepreneurial skills have equipped them with the capacity and capability to establish business goals and objectives, and actively work towards their achievement. Moreover, those women have also agreed that entrepreneurship skills enhanced their marketing skills. Additionally, entrepreneurial skills have also enhanced their managerial skills to generate profit and become financially independent. Thus, TVET institutes have successfully developed and enhanced the entrepreneurial skills of women working in TVETs.

Table 3.4. Hands on Skills Have Enhanced My Capacity for Self-Employment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.9	1.9	1.9
	disagree	6	3.9	3.9	5.8
	neutral	34	21.9	21.9	27.7
	agree	76	49.0	49.0	76.8
	strongly agree	36	23.2	23.2	100.0
	Total	155	100.0	100.0	

6.2 Emerging Theme from the Findings

Theme 1: TVET and Skilled Women Hands-on Skills

The ongoing advancement of Technical and Vocational Education and Training (TVET) in Balochistan aligns with the evolving demands of the industry and the national vision. This study endeavors to evaluate the role of TVET-trained women in fostering self-employability prospects within the youth demographic of Balochistan. Specifically, the investigation aims to scrutinize the impact of hands-on skills acquired through Quetta's TVET schools on enhancing employment avenues among the region's youth. The findings underscore that the acquisition of hands-on skills from TVET institutions in Quetta significantly and positively contributes to the augmentation of employment opportunities among women in Balochistan.

The results indicate that TVET institutes in Quetta have significantly contributed to the improvement of women's hands-on skills, with a majority of women expressing positive views towards the role of TVET institutes. Moreover, the majority of women respondents agreed that "Hands-on skills have played a crucial role in developing their practical skills, competencies, confidence, and self-esteem. Furthermore, the respondents widely agreed that hands-on skills have been instrumental in enhancing productivity and driving socio-economic development. These findings are consonant with prior research outcomes that elucidate the pivotal role of hands-on skills acquired through Technical and Vocational Education and Training (TVET) programs in facilitating employment generation. TVET program in terms of women's hands on skill; most interviewed participants perceived that women in Baluchistan had developed hand-skilled behaviors. The acquisition of hands-on skills from TVET institutions holds significant importance not only in the initiation of employment but also in optimizing work performance, catalyzing job advancement, and fortifying job stability (Desire Rukundo & Cyprien Sikubwabo, 2021). The empirical results related to the role of TVET institutes in promoting women's hands-on skills in Quetta, Balochistan are presented in Tables 1, 2, and 3 (please refer to the appendices for the specific table numbers). These tables illustrate the findings derived from the study.

Theme 2: TVET and Skilled Women Entrepreneurship Skills

Our findings suggest that The TVET programme also provided with invaluable advice on how to launch a business. Most interviewed participants noted that

“General education, skill development, and social and cultural support all play important roles in women becoming entrepreneurs in many areas of their lives”. It additionally strengthens and highlights the value of TVET skills in a variety of situations where skill acquisition has an impact on individuals' socioeconomic development. These initiatives help women enhance their entrepreneurial talents and establish their own startup.

The findings revealed that in Balochistan, TVET programs are undergoing a dynamic evolution to ensure their alignment with the changing needs of industries and broader national aspirations which is crucial for bridging the existing skills gap and effectively meeting the dynamic demands of the labor market. TVET institutions determined to equip their participants with the relevant skills and knowledge required by industries through continuously updating and adapting their programs. This optimistic approach not only boosts individuals' employability but also contributes to the overall economic development and growth of the region.

Moreover, the study highlights the significance of augmenting the educational quality offered within TVET institutes to propel the nation towards development and prosperity. The findings further reinforce the notion that superior TVET, and to a lesser degree, technical higher education, play a pivotal role in facilitating Balochistan's shift from a low-skilled labor force to a more industrious and globally competitive workforce.

Empowerment of Women and the Promotion of Gender Equality

These findings align with prior research that accentuates the empowerment of women and the promotion of gender equality through practical skill development across diverse TVET domains. In order to facilitate the effective motivation and empowerment of women, fostering financial independence, self-reliance, and productivity, it is essential to enact specialized TVET programs that specifically cater to their academic and practical skill requirements. These findings are consistent with prior research, exemplified by the study conducted by Minani and Sikubwabo (2022), which examined the impact of TVET programs on women's empowerment in Rwanda. TVET, for example a hands-on and product-based form of training, plays a vital role in empowering individuals and equipping them with specific skills for the workforce (Mohiuddin, 2016).

6.3. Challenges Faced by Women Business Entrepreneur

The analysis conducted in this study highlights the significant role of two key variables in understanding the motivations and challenges faced by women business owners:

Lack of Education and Managerial Skills

These factors have a profound impact on the experiences and outcomes of women entrepreneurs. The findings underscore that limited educational opportunities hinder women from acquiring the necessary knowledge and expertise to effectively manage their businesses. Additionally, the absence of managerial skills presents further obstacles, impeding their ability to navigate complex business environments and make informed decisions. Recognizing the importance of addressing these gaps, it becomes crucial to design interventions that focus on enhancing educational opportunities and providing targeted training programs to empower women entrepreneurs with the essential managerial skills required for business success.

The findings indicate that the acquisition of entrepreneurship skills is crucial in enabling women to recognize and evaluate business ideas as potential opportunities. The study specifically concentrated on the establishment of small and medium enterprises (SMEs) by women entrepreneurs, within the context of a family-oriented framework.

The respondents stated that ***“They had realized that there were numerous gifted ladies in their community but lacked financial support to enroll in pricey beautician schools and buy***

cosmetics. They have chosen to teach these girls freely to address this problem and to give them a platform from which to launch SMEs with scarce resources. According to the respondent, this training can aid in moldings a person's personality into a self-made woman". (Respondent #1,#3& #5). This research is in line with previous studies conducted by Cetindamar, Gupta, Karadeniz, and Egrican (2012) and Jennings and Brush (2013), which also explored the role of women entrepreneurs in SMEs. Entrepreneurship fosters women personal growth and development (Cooper et al., 2021).

According to the respondent, "*obtaining financial help is a major issue in society. Those who are financially secure can launch their businesses with ease, while many families struggle to make enough money to live comfortably. Due to the stringent restrictions, getting finance from banks and other financial organizations might be difficult for the typical person to fulfill. Skilled women may be forced to work for others rather than using their skills to launch their enterprises due to a lack of financial support"*. (Respondent 1,4, and 8).

The current study proposes that engaging in entrepreneurship provides valuable advantages for women from various social and economic backgrounds, as it equips them with distinctive skills and enhances their critical thinking abilities. The acquisition of entrepreneurial skills is applicable across various industries, allowing women to become competent candidates in their chosen fields. This claim is supported by Buang, Mohamad, Ahmad, and Yuniarti (2020), who assert that women with technical and vocational training (TVET) qualifications have made noteworthy contributions to their income earnings while also improving their overall educational attainment.

Lack of Family Support

The interviewees emphasized the importance of skill development for ethical employment, livelihood sustainability, maintaining dignity and respect, being productive, and making meaningful contributions to society and the workplace. These findings underscore the significance of skill development in Balochistan, contributing to socio-economic and demographic progress in the region as a whole. According to a study, women entrepreneurs embark on their business ventures with or without the assistance of their family members, in terms of both organization and financing. The study acknowledges the substantial contribution of women entrepreneurs to the economic prosperity of a nation.

Lack of Confidence and Exhibiting Reduced Communicative Abilities

The study findings further revealed that participants experienced personal growth and enhanced psychological well-being following their enrollment in a TVET program. Prior to participating in the program, respondents reported lacking confidence and exhibiting reduced communicative abilities. However, through the acquisition of vocational skills facilitated by TVET programs, their self-esteem and communication skills improved significantly, empowering them to engage more effectively in various aspects of their lives.

Previous studies have demonstrated that women with higher self-esteem are more likable, have better interpersonal relationships, and make more favorable impressions on others. They also exhibit stronger in-group favoritism, display greater initiative, and experience more positive emotions compared to women with lower self-esteem (Baumeister, Campbell, Krueger, & Vohs, 2003). The current study findings have important implications, suggesting that policies and programs designed to promote women's economic empowerment can have significant positive effects on their social and psychological well-being. Therefore, stakeholders should strive to create a supportive environment that empowers women and promotes their overall socio-economic development by recognizing and addressing the role of income in shaping respect, social status, and self-esteem economic development by recognizing and addressing the role of income in shaping respect, social status, and self-esteem

Lack of Women-owned SMEs

The findings derived from this research hold significant importance in shaping policies that foster the establishment of small and medium enterprises (SMEs) owned by women. It is crucial to comprehend the challenges faced by women entrepreneurs and identify effective solutions that are tailored to the specific level of development of the country. Such understanding is imperative for promoting and supporting the entrepreneurial pursuits of women (Welsh, Tullar, & Nemati, 2016). These learning techniques can be official, non-formal, or informal, and they can be used in both work and educational settings. The findings showed that one of the strategies that can be used to increase the economic contribution of entrepreneurs to global wealth and development, particularly among women, is entrepreneurship education. Women own over 30% of small enterprises across all industrialized nations.

Drawing from the research findings, it is crucial to enact policies and initiatives that actively support and empower women entrepreneurs. First and foremost, fostering an environment that encourages family support for women entrepreneurs is crucial. Providing information, resources, and financial assistance specifically targeted at women-owned SMEs can facilitate their establishment and growth. Governments and relevant organizations should collaborate in developing and implementing customized programs that address the unique challenges encountered by women entrepreneurs in different countries and at various stages of development.

Lack of the Integration of Entrepreneurship Education into Formal Education Systems

The integration of entrepreneurship education into formal education systems can equip women with the essential skills and knowledge to navigate the business landscape effectively. To accomplish this, governmental bodies and institutional authorities can prioritize curriculum development, training initiatives, and mentorship programs that emphasize entrepreneurial thinking, problem-solving abilities, and risk management. Ensuring equal access to technical and vocational education and training (TVET) programs and opportunities is crucial in promoting women's participation in entrepreneurship, for which higher authorities should take responsibility. The provision of scholarships, financial support, and incentives for women pursuing TVET qualifications can enhance their technical and vocational skills, ultimately bolstering their employability and entrepreneurial potential across diverse industries.

A successful TVET system is often seen as a remedy for issues such as unemployment, low productivity, slow economic growth, and slow socio-economic development. Thus, TVET programs significantly transform an untrained labor force into knowledgeable and economically productive workers, and contribute to the socio-economic development of a nation. The vocational training programs specifically focus on socially disadvantaged women who are predominantly engaged in domestic roles.

6.4. Skilled Women Economical, Psychological, and Social Empowerment

Psychologically, economically, and socially, the attainment of financial independence bestows a profound sense of empowerment upon women. Evidently, a substantial majority of the individuals interviewed underlined the transformative impact of these capabilities on women, catalyzing not only psychological well-being but also economic empowerment. This empowerment, in turn, equips women with the capacity to render astute decisions and robustly engage in multifaceted dimensions of society and corporate domains. The respondent claims that ***“Since enrolling in a TVET programme, they have made a development in their psychological well-being. Before the programme, they lacked confidence and were less talkative”*** (entrepreneurs, 2, 4, and 9).

Besides the economic and sociological aspects, women empowerment also encompasses psychological factors. In the context of successful women enterprises in Quetta, several important

factors have been identified. These factors include the desire for independence and competitiveness, the aspiration for increased income, the drive to enhance the family's social status, the motivation to develop personal skills, and the influence of success stories of other women entrepreneurs (Darmanto & Yuliari, 2018). Interestingly, location selection and technological mastery are no longer perceived as barriers for women entrepreneurs in Balochistan. This indicates a positive trend where women entrepreneurs can overcome traditional constraints and leverage advancements in technology and access to resources. Previous research has also highlighted the significance of policy, personality traits, human resources, and the entrepreneurial climate in shaping the performance of women entrepreneurs.

Role of Skilled Women in Poverty Alleviation

One key contribution of our findings is the provision of evidence for a distinct perspective on entrepreneurship for poverty alleviation, which diverges from the prevailing discourse in mainstream entrepreneurship literature. In contrast to short-term approaches, we found that the women in our study adopt a long-term perspective when addressing poverty, aligning with the perspectives highlighted by (Murnieks, Klotz, & Shepherd, 2020). Existing research consistently indicates that women's income has far-reaching implications. Increased income enhances women's autonomy, providing them with the freedom to choose their lifestyle and fostering a sense of empowerment.

The study's findings and the developed framework make a significant contribution to the existing literature on women and ethnic entrepreneurship. However the rest of respondents (#4, #7 and #7) said ***that “Businesses founded by women can lead to job possibilities for others, thereby lowering poverty levels in the area. We feel more comfortable and bold as compared to other women in my surrounding who are household we can financially support our families and we can do help other female to earn money and help them to get job or do their own business”***. TVET can have a transformative impact on women and lifelong learners, providing them with the skills they need to find employment and improve the sustainable prosperity of themselves, their employers, and their communities.

The Promotional Influence of Skilled Women on Children's Health and Education

The role of women in advancing the health and education of children is a pivotal subject of investigation. As women attain higher incomes, they gain enhanced agency over productive resources, affording them the capacity to channel investments not only into their own health and education but also into those of their offspring. Additionally, the attainment of economic independence equips women with the means to extricate themselves from abusive relationships, as attested by scholarly work (Esplen & Brody, 2007; Murnieks et al., 2020; Uzoamaka, Gerald, & Jude, 2016).

The present study delves into the experiences and beliefs of women entrepreneurs in Balochistan, thus enriching our comprehension of the manifold impacts of entrepreneurship on poverty amelioration, particularly within ethnically diverse and marginalized communities. By highlighting the potential for transformative effects stemming from women's entrepreneurial activities, this research underscores their capacity to foster economic empowerment, engender social well-being, and contribute to the realization of sustainable strategies for reducing poverty over the long term.

The primary objective of this study is to empirically examine and evaluate the prominence of the economic facet within women's empowerment paradigms. Specifically, the research aims to discern the centrality of the economic dimension in relation to its interconnectedness with other dimensions of women's empowerment. This aligns with the investigation conducted by F. W. Bayissa et al. (2017) on women engaged in collective endeavors in Addis Ababa, which underscores the multidimensional nature of the empowerment process. It raises the essential inquiry of the

extent to which interventions aimed at fostering women's empowerment within the economic realm concurrently engender empowerment across other dimensions (Bayissa, Smits, & Ruben, 2018).

The findings of our study suggest that women's autonomy and prevailing gender norms may have contrasting effects on each other. Women entrepreneurs need to be aware of the challenges and setbacks they may encounter in their business ventures while demonstrating determination and resilience in overcoming them.

Achieving Work-Family Balance: Empowering Women Entrepreneurs as Catalysts for Change

Striking a harmonious equilibrium between professional commitments and family responsibilities constitutes a notable challenge, yet it is an attainable goal with effective support systems and strategic planning. Moreover, women entrepreneurs play a pivotal role as inspirational figures for fellow women in their communities, especially those lacking formal education and skills. This research highlights the paramount significance of recognizing and proactively addressing the unique hurdles encountered by women entrepreneurs, particularly in effectively managing their concurrent roles in the realms of work and family.

Likewise, in congruence with Zia, Tan, and Subramaniam (2022) and Greenhaus and Allen (2006), the concept of work-life balance has been conceived as the harmonious congruence of an individual's efficacy and contentment in both occupational and non-occupational spheres, while aligning with their personal values and priorities. TVET Experts assert that low financial resources and constrained access to technology and training pose imperative obstacles to employment prospects in the skills sector. Less employment opportunities can lead to financial uncertainty, averting individuals from growing their skills and pursuing new job predictions. In order to offer the essential help, it is critical to offer financial and technical help and support to those interested in developing their practical skills. Enterprises with the private sector, Government-funded programs, and collaborations with NGOs and other organizations can play a dynamic role in offering the essential support. The study also demonstrates that the urge for success motivates women entrepreneurs to pursue career maturity via self-improvement, effort, skill acquisition, and ability enhancement. This study proposes that the drive to achieve catalyzes personal growth and professional development among women entrepreneurs. These women can enhance their entrepreneurial competencies and achieve higher levels of career success by consistently pushing themselves and following their goals. The findings primarily underscore the significance of the need for achievement as a key determinant in the career progression and success of women entrepreneurs.

The findings stress the importance of supporting and recognizing the diverse motivations and goals of women entrepreneurs. Business support organizations, policymakers, and stakeholders can incorporate these insights into the design of programs and initiatives aimed at fostering the growth and prosperity of women-led enterprises. By recognizing and encouraging the pursuit of both economic and social goals, it becomes feasible to establish an environment that nurtures the development of sustainable and socially responsible businesses led by women entrepreneurs. The parallel between the current findings and the study by Holquist and Sundin (1990) indicates that women entrepreneurs have a multifaceted approach to business, considering both financial gains and social impact. By striving to meet customer satisfaction and addressing social needs, women entrepreneurs contribute to the overall well-being of their communities while also pursuing economic goals.

At the practical level, the findings of the current study indicate that multiple factors that impede women's entrepreneurship in the region. These encompass insufficient support from government programs, the prevailing patriarchal social structure, inadequate collateral security for accessing

funding, limited entrepreneurial knowledge for effective business management, lack of sufficient market information, occurrence of local disasters, and time limitations or role conflicts that create challenges in balancing family responsibilities. According to the respondents, the lack of collateral security to acquire funds emerged as a significant obstacle in particular.

Skilled women entrepreneurs, due to their expertise in managing businesses, often exhibit strong social skills and effective communication abilities. These attributes can enhance their critical thinking and decision-making capabilities. A respondent in the focus group discussion expressed their perspective, stating that they feel more comfortable and confident compared to other women in their community who primarily focus on homemaking. Their entrepreneurial skills enable them to provide financial support to their family and assist other women in earning income by helping them find employment or start their businesses. The respondent's primary goal is to boost the confidence of these women, empowering them to engage with others, market their products, establish networks with fellow entrepreneurs, and attain economic independence. Consequently, these women will experience greater self-reliance, generate income, and actively participate in family matters, leading to overall empowerment and improved socio-economic outcomes.

The current study undertakes a comprehensive examination that accentuates the salient significance of motivational factors and challenges faced by women business proprietors. This analysis places particular emphasis on the profound implications stemming from inadequacies in education and a deficiency in managerial competencies. These factors collectively mold the trajectories and outcomes experienced within the realm of women entrepreneurship. The empirical findings significantly underscore that the constrained access to educational avenues significantly hampers women's ability to acquire the essential knowledge and expertise requisite for effective business management. Furthermore, the conspicuous absence of necessary managerial skills presents formidable obstacles, impeding successful navigation within the intricate business landscapes and the formulation of judicious decisions. In cognizance of the intrinsic value attributed to bridging these educational and managerial gaps, a compelling necessity emerges to design and implement tailored interventions aimed at amplifying educational opportunities and establishing targeted training initiatives. Such interventions inherently harbor the potential to empower women entrepreneurs with the imperative managerial competencies crucial for fostering prosperous business ventures. By proactively addressing these fundamental determinants, stakeholders stand poised to effectuate substantial advancements in the realm of women's entrepreneurship, thereby nurturing an ecosystem that is conducive to their sustainable growth and prosperity.

RECOMMENDATION / POLICY IMPLICATIONS

These concise recommendations leverage research insights to tackle specific challenges faced by skilled women in Balochistan's TVET sector, fostering their empowerment and equitable participation in entrepreneurship. Based on the research findings within the context of Balochistan's TVET programs and skilled women, the following evidence-based policy recommendations are proposed:

Comprehensive Entrepreneurship Education Integration: Develop a comprehensive framework to integrate entrepreneurship education within TVET programs. This framework should include modules covering business planning, financial management, marketing strategies, and innovation. Collaborate with industry experts to ensure the curriculum aligns with current market demands and equips women with relevant entrepreneurial skills.

Targeted Financial Support Programs: Establish financial support programs specifically tailored to women entrepreneurs in the TVET sector. Create accessible and low-barrier microloan initiatives

to provide women with startup capital for their businesses. **Collateral-Free Loan Programs:** Collaborate with financial institutions to design and implement specialized loan programs that do not require traditional collateral but instead consider business viability and potential.

Gender-Responsive Mentorship Initiatives: Implement structured mentorship programs that pair skilled women with experienced entrepreneurs or professionals. Promote successful entrepreneur role models from similar backgrounds who can guide women through the challenges of entrepreneurship.

Empowerment through Capacity Building: Develop and implement regular capacity-building workshops and training sessions to enhance women's managerial and communication skills. Focus on fostering self-confidence and effective communication strategies to help women overcome barriers.

Supportive Ecosystem Establishment: Collaborate with private sector entities, governmental agencies, and civil society organizations to create a supportive ecosystem for skilled women entrepreneurs. Foster partnerships to provide access to mentorship, networking opportunities, and business development services.

Promoting Women-Owned SMEs: Launch targeted campaigns and initiatives to promote and encourage the establishment of women-owned Small and Medium Enterprises (SMEs). Provide incentives and resources to facilitate the growth and sustainability of women-led businesses.

Gender-Equality Promotion in TVET: Develop policies and guidelines to ensure equal access to TVET programs for both genders. Implement awareness campaigns to challenge gender stereotypes and biases within TVET institutions.

Family Support Initiatives: Collaborate with community leaders and stakeholders to raise awareness about the importance of family support for women entrepreneurs. Establish support networks that provide assistance in managing work-family balance.

Research-Informed Policy Design: Continuously gather data and insights from skilled women entrepreneurs to inform policy design and adaptation. Implement a feedback loop to ensure policies remain relevant and effective.

Government Initiatives for Empowerment: Collaborate with government agencies to establish policies and initiatives that directly empower women economically, psychologically, and socially. Create programs that recognize and celebrate the contributions of skilled women in poverty alleviation and societal betterment.

These policy recommendations are grounded in the research findings and are designed to address the multifaceted challenges faced by skilled women entrepreneurs in Balochistan's TVET sector, fostering an environment of empowerment, equality, and sustainable economic growth.

CONCLUSION

The goal of this study is to establish a comprehensive framework that assists women entrepreneurs in the Technical and Vocational Education and Training (TVET) sector to sustain their businesses amid the prevailing economic inflation. The ensuing section presents the key outcomes derived from the research: this study comprehensively tackled its objectives, unveiling critical aspects of TVET institutes' roles in enhancing women's hands-on skills in Quetta, Balochistan. In summary, the empirical research findings presented in this study provide a comprehensive understanding of the intricate relationship between Technical and Vocational Education and Training (TVET), skilled women, entrepreneurship, empowerment, and the associated challenges. Through the exploration

of various themes, including TVET's impact on women's hands-on and entrepreneurship skills, the crucial role of empowerment and gender equality promotion, as well as the challenges encountered by women entrepreneurs, this research underscores the multidimensional nature of this dynamic landscape.

The study illuminates the transformative potential of TVET in equipping skilled women with both hands-on technical skills and entrepreneurial competencies. These competencies not only enhance their economic prospects but also contribute to their psychological and social empowerment. Furthermore, the research underscores the pivotal role skilled women play in poverty alleviation and their potential to positively influence the health and education outcomes of their children, thereby creating a ripple effect of societal betterment.

However, the investigation also brings to light the multifaceted challenges faced by women entrepreneurs. The lack of education and managerial skills, insufficient financial support, inadequate family backing, reduced confidence, and limited communicative abilities collectively hinder their entrepreneurial journey. Moreover, the absence of women-owned Small and Medium Enterprises (SMEs) and the inadequate integration of entrepreneurship education into formal educational systems further compound these challenges. In this context, the findings emphasize the need for a holistic approach that not only enhances the accessibility and relevance of TVET programs but also addresses the sociocultural, educational, and financial barriers that skilled women encounter. By implementing targeted policies and interventions, such as fostering gender-responsive environments, providing comprehensive entrepreneurship education, and establishing supportive ecosystems, society can empower skilled women as potent catalysts for transformative change.

This current research underscores the intertwined nature of TVET, skilled women's empowerment, entrepreneurship, and the overarching goal of gender equality. The insights garnered from this study have the potential to inform policy-makers, educators, and stakeholders in crafting strategies that not only bridge the existing gaps but also leverage the power of skilled women to drive positive shifts in economic, societal, and familial spheres. In conclusion, the research delineates a nuanced tapestry of interrelated facets spanning TVET, skilled women, entrepreneurship, and empowerment. The findings serve as a seminal reference for policy makers, educators, and stakeholders alike, underpinning the formulation of interventions to bridge extant gaps and harness the potential of skilled women entrepreneurs as drivers of positive societal metamorphosis.

8.1. Limitation of the Study

This study has undoubtedly made noteworthy contributions to the field, it is imperative to acknowledge its inherent limitations. Specifically, it offers significant insights into the impact of Technical and Vocational Education and Training (TVET) programs on women's self-employability in Balochistan. However, certain considerations surround its limitations.

Firstly, the adoption of a non-probability convenience sampling technique introduces the possibility of sampling bias, constraining the generalizability of findings to the broader cohort of female TVET students and entrepreneurs. Additionally, the cross-sectional research design captures merely a snapshot of participants' experiences and perceptions, curtailing the capacity to establish causality and monitor temporal changes. Self-report bias, inherent in the utilization of self-administered survey questionnaires and qualitative interviews, raises concerns about response accuracy and objectivity. The findings, rooted in the Balochistan context, may exhibit limited transferability to distinct regions or cultural settings, thus curtailing external validity. While the study engaged 368 participants, this sample size might remain somewhat limited for drawing exhaustive conclusions, particularly when acknowledging the diverse experiential spectrum within

the population. Although the study's implications encompass interventions for addressing challenges, the absence of an all-encompassing roadmap for policy implementation underscores the intricate nature of women's entrepreneurial empowerment. Social desirability bias, wherein participants' responses align with societal norms, may inadvertently underrepresent negative experiences or perceptions. The quantitative analysis predominantly scrutinized perceptions and educational experiences, potentially overlooking diverse facets of self-employability and entrepreneurial success. Last, the study area was limited to women female TVET enrolled and pass out student of Quetta. Other studies from different regions in the country will provide more details with respect to female entrepreneurship in the Pakistan context.

In summation, notwithstanding its substantial contributions to comprehending women's self-employability within the ambit of TVET programs in Balochistan, these limitations warrant prudence in extending the findings, while concurrently signaling avenues for further exploration to heighten the study's comprehensiveness and applicability.

REFERENCES

- Ahmed, A., Wadood, A., & Mohammad, N. (2020). Tracer study of socio-economic and demographic impacts of technical and vocational education and training (tvvet) for women in Baluchistan. DOI: <https://doi.org/10.35484/pssr>, 58.
- Ahmed, M., Baloch, M. S., & Raza, K. (2022). Effectiveness of Vocational Skills Acquisition Programmes on Women Empowerment in Quetta. 2021.
- Alvi, M. N. A. S., & Tarar, M. G. (2021). Role of Technical Education and Vocational Training in Promoting Youth Employment: A Case study of TEVT Institutes in District Gujranwala.
- Ansari, B., & Wu, X. (2013). Development of Pakistan's technical and vocational education and training (TVET): An analysis of skilling Pakistan reforms. *Journal of Technical Education and Training*, 5(2).
- Au, K., Chiang, F. F., Birtch, T. A., & Ding, Z. (2013). Incubating the next generation to venture: The case of a family business in Hong Kong. *Asia Pacific Journal of Management*, 30, 749-767.
- Azeem, N., Omar, M. K., Rashid, A. M., & Abdullah, A. (2022). The secondary school students' interest toward the TVET programs: Demographic differences. *International Journal of Learning, Teaching and Educational Research*, 21(4), 80-96.
- Bayissa, F. W., Smits, J., & Ruben, R. (2018). The multidimensional nature of women's empowerment: beyond the economic approach. *Journal of International Development*, 30(4), 661-690.
- Becker, S., Bryman, A., & Ferguson, H. (2012). *Understanding research for social policy and social work: themes, methods and approaches: policy press*.
- Bohne, C., Eicker, F., & Haseloff, G. (2017). Competence-based vocational education and training (VET) An approach of shaping and networking. *European Journal of Training and Development*, 41(1), 28-38.
- Buang, Z., Mohamad, M. M., Ahmad, A., & Yuniarti, N. (2020). The earnings and employment of community colleges' graduates: Occupational field and gender analysis. *Jurnal Pendidikan Teknologi dan Kejuruan*, 26(1), 11-17.
- Carter, N. M., Gartner, W. B., Shaver, K. G., & Gatewood, E. J. (2003). The career reasons of nascent entrepreneurs. *Journal of business venturing*, 18(1), 13-39.
- Cooper, R., Foley, M., Macdonald, F., Charlesworth, S., Westcott, M., Warren, T., . . . Constantin, A. (2021). "workplace Gender Equality: Where are We Now and where to Next?": Sage.
- Darmanto, S., & Yuliari, G. (2018). Developing organizational citizenship behavior in women entrepreneurs business community. *Journal of Entrepreneurship Education*, 21(4), 1-9.
- Gale, T., & Molla, T. (2015). Social justice intents in policy: An analysis of capability for and through education. *Journal of Education Policy*, 30(6), 810-830.
- Gebel, M., & Heineck, G. (2019). 24. Returns to education in the life course. *Research handbook on the sociology of education*, 454.
- Hassan, K., & Siwar, C. (2021). *Phases of Rural Development in Malaysia: Shifting Towards Human Resource Development and Well-being (UUM Press): UUM Press*.
- Hibberts, M., Burke Johnson, R., & Hudson, K. (2012). Common survey sampling techniques. *Handbook of survey methodology for the social sciences*, 53-74.

- Hojeij, Z., Baroudi, S., & Meda, L. (2023). Preservice teachers' experiences with classroom management in the virtual class: a case study approach. Paper presented at the Frontiers in Education.
- Holquist, C., & Sundin, E. (1990). What's special about highly educated women entrepreneurs? *Entrepreneurship & Regional Development*, 2(2), 181-194.
- Hussain, M. A. M., Zulkifli, R. M., Kamis, A., Threeton, M. D., & Omar, K. (2021). Industrial Engagement in the Technical and Vocational Training (TVET) System. *International Journal of Learning, Teaching and Educational Research*, 20(12), 19-34.
- IMRAN, M., & MOHYUDDIN, N. (2017). Development and Performance of TVET: Analysis of Pakistan. *Research Journal Social Sciences*, 6(2).
- Jabarullah, N. H., & Iqbal Hussain, H. (2019). The effectiveness of problem-based learning in technical and vocational education in Malaysia. *Education+ Training*, 61(5), 552-567.
- James, N., & Busher, H. (2007). Ethical issues in online educational research: protecting privacy, establishing authenticity in email interviewing. *International Journal of Research & Method in Education*, 30(1), 101-113.
- Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third millennium development goal 1. *Gender & development*, 13(1), 13-24.
- Kissi, E., Ahadzie, D. K., Debrah, C., & Adjei-Kumi, T. (2020). Underlying strategies for improving entrepreneurial skills development of technical and vocational students in developing countries: using Ghana as a case study. *Education+ Training*, 62(5), 599-614.
- Kuschel, K., & Lepeley, M.-T. (2016). Women start-ups in technology: Literature review and research agenda to improve participation. *International Journal of Entrepreneurship and Small Business*, 27(2-3), 333-346.
- Ladge, J., Eddleston, K. A., & Sugiyama, K. (2019). Am I an entrepreneur? How imposter fears hinder women entrepreneurs' business growth. *Business horizons*, 62(5), 615-624.
- Lenka, U., & Agarwal, S. (2017). Role of women entrepreneurs and NGOs in promoting entrepreneurship: case studies from Uttarakhand, India. *Journal of Asia Business Studies*, 11(4), 451-465.
- Maclean, R., & Pavlova, M. (2013). Vocationalization of secondary and higher education: pathways to the world of work. *Revisiting global trends in TVET: Reflections on theory and practice*, 40.
- Manshani, S., & Dubey, A. (2017). Start-up women in start-up India: A study of women entrepreneurs in India. *International Journal of Business Management (IJBM)*, 6(4), 91-100.
- Marope, P. T. M., Chakroun, B., & Holmes, K. (2015). *Unleashing the potential: Transforming technical and vocational education and training*: UNESCO Publishing.
- Matenda, S. (2020). Experiences of women students in Engineering studies at a TVET college in South Africa. *Journal of Vocational, Adult and Continuing Education and Training*, 3(1), 109-125.
- Minani, J. P., & Sikubwabo, C. (2022). Role Of Technical And Vocational Education And Training (Tvet) In Empowering Women In Rwanda: A Case Of Rubavu District. Retrieved from
- Murnieks, C. Y., Klotz, A. C., & Shepherd, D. A. (2020). Entrepreneurial motivation: A review of the literature and an agenda for future research. *Journal of Organizational Behavior*, 41(2), 115-143.
- Naziz, P. S., Das, R., & Sen, S. (2019). The scent of stress: Evidence from the unique fragrance of agarwood. *Frontiers in plant science*, 10, 840.

- Nissan, E., Castaño, M.-S., & Carrasco, I. (2012). Drivers of non-profit activity: a cross-country analysis. *Small Business Economics*, 38, 303-320.
- Okwelle, P. C., & Wordu, C. C. (2014). Public-Private Partnership In Education: A Strategy For Improving Quality Of Vocational-Technical Education Programme In Nigeria: A Case Study Of Rivers State. *Journal of Education and Practice*, 5(35), 180-183.
- Oviawe, J. I. (2018). Revamping technical vocational education and training through public-private partnerships for skill development. *Makerere Journal of Higher Education*, 10(1), 73-91.
- Oviawe, J. I., Uwameiye, R., & Uddin, P. S. (2017). Bridging skill gap to meet technical, vocational education and training school-workplace collaboration in the 21st century. *International Journal of vocational education and training research*, 3(1), 7-14.
- Senyard, J., Davidsson, P., & Steffens, P. (2015). Environmental dynamism as a moderator of the relationship between bricolage and firm performance. Paper presented at the Annual Meeting of the Academy of Management.
- Staniewski, M. W., & Awruk, K. (2019). Entrepreneurial success and achievement motivation—A preliminary report on a validation study of the questionnaire of entrepreneurial success. *Journal of Business Research*, 101, 433-440.
- Sunde, U., & Vischer, T. (2015). Human capital and growth: Specification matters. *Economica*, 82(326), 368-390.
- Suresh, R. V., & Kumar, S. R. (2022). Women empowerment through entrepreneurship: Evidence from Indian informal sector. *Journal of Positive School Psychology*, 7892-7910.
- Svobodova, L., & Cerna, M. (2018). Economic Aspects of Corporate Education and Use of Advanced Technologies. Paper presented at the Emerging Technologies for Education: Third International Symposium, SETE 2018, Held in Conjunction with ICWL 2018, Chiang Mai, Thailand, August 22–24, 2018, Revised Selected Papers 3.
- Talento, M. S. D., Tandang, N. A., Rogelio, R. A. O., & Araña-Roldan, R. A. S. (2022). Factors Influencing Employment of Female Graduates of Technical and Vocational Education and Training Program in the Philippines. *Philippine Journal of Science*, 151(3).
- Terjesen, S., Bosma, N., & Stam, E. (2016). Advancing public policy for high-growth, female, and social entrepreneurs. *Public Administration Review*, 76(2), 230-239.
- Tambunan, T. T. (2011). Development of micro, small and medium enterprises and their constraints: A story from Indonesia. *Gadjah Mada International Journal of Business*, 13(1), 21-43.
- Weick, K. E., & Sutcliffe, K. M. (2001). *Managing the unexpected (Vol. 9)*: San Francisco: Jossey-Bass.
- Welsh, D. H., Tullar, W. L., & Nemati, H. (2016). Entrepreneurship education: Process, method, or both? *Journal of Innovation & Knowledge*, 1(3), 125-132.
- Woods, M., Paulus, T., Atkins, D. P., & Macklin, R. (2016). Advancing qualitative research using qualitative data analysis software (QDAS)? Reviewing potential versus practice in published studies using ATLAS.ti and NVivo, 1994–2013. *Social science computer review*, 34(5), 597-617.
- Watters, J., Hay, S., Dempster, N., & Pillay, H. (2013). School industry partnerships: An innovative strategy for vocational education. Paper presented at the Proceedings of the ECER VETNET Conference 2013, Second edition.
- Weick, K. E., & Sutcliffe, K. M. (2001). *Managing the unexpected (Vol. 9)*: San Francisco: Jossey-Bass.

- Zainol, N. R., & Al Mamun, A. (2018). Entrepreneurial competency, competitive advantage and performance of informal women micro-entrepreneurs in Kelantan, Malaysia. *Journal of Enterprising Communities: People and Places in the Global Economy*, 12(3), 299-321.
- Zeb, A., & Ihsan, A. (2020). Innovation and the entrepreneurial performance in women-owned small and medium-sized enterprises in Pakistan. Paper presented at the Women's Studies International Forum.
- Matenda, S. (2020). Experiences of women students in Engineering studies at a TVET college in South Africa. *Journal of Vocational, Adult and Continuing Education and Training*, 3(1), 109-125.
- Minani, J. P., & Sikubwabo, C. (2022). Role Of Technical And Vocational Education And Training (Tvet) In Empowering Women In Rwanda: A Case Of Rubavu District. Retrieved from
- Murnieks, C. Y., Klotz, A. C., & Shepherd, D. A. (2020). Entrepreneurial motivation: A review of the literature and an agenda for future research. *Journal of Organizational Behavior*, 41(2), 115-143.
- Nissan, E., Castaño, M.-S., & Carrasco, I. (2012). Drivers of non-profit activity: a cross-country analysis. *Small Business Economics*, 38, 303-320.
- Okwelle, P. C., & Wordu, C. C. (2014). Public-Private Partnership In Education: A Strategy For Improving Quality Of Vocational-Technical Education Programme In Nigeria: A Case Study Of Rivers State. *Journal of Education and Practice*, 5(35), 180-183.
- Oviawe, J. I. (2018). Revamping technical vocational education and training through public-private partnerships for skill development. *Makerere Journal of Higher Education*, 10(1), 73-91.
- Oviawe, J. I., Uwameiye, R., & Uddin, P. S. (2017). Bridging skill gap to meet technical, vocational education and training school-workplace collaboration in the 21st century. *International Journal of vocational education and training research*, 3(1), 7-14.
- Staniewski, M. W., & Awruk, K. (2019). Entrepreneurial success and achievement motivation—A preliminary report on a validation study of the questionnaire of entrepreneurial success. *Journal of Business Research*, 101, 433-440.
- Sunde, U., & Vischer, T. (2015). Human capital and growth: Specification matters. *Economica*, 82(326), 368-390.
- Suresh, R. V., & Kumar, S. R. (2022). Women empowerment through entrepreneurship: Evidence from Indian informal sector. *Journal of Positive School Psychology*, 7892-7910.
- Svobodova, L., & Cerna, M. (2018). Economic Aspects of Corporate Education and Use of Advanced Technologies. Paper presented at the Emerging Technologies for Education: Third International Symposium, SETE 2018, Held in Conjunction with ICWL 2018, Chiang Mai, Thailand, August 22–24, 2018, Revised Selected Papers 3.
- Talento, M. S. D., Tandang, N. A., Rogelio, R. A. O., & Araña-Roldan, R. A. S. (2022). Factors Influencing Employment of Female Graduates of Technical and Vocational Education and Training Program in the Philippines. *Philippine Journal of Science*, 151(3).
- Tambunan, T. T. (2011). Development of micro, small and medium enterprises and their constraints: A story from Indonesia. *Gadjah Mada International Journal of Business*, 13(1), 21-4
- Watters, J., Hay, S., Dempster, N., & Pillay, H. (2013). School industry partnerships: An innovative strategy for vocational education. Paper presented at the Proceedings of the ECER VETNET Conference 2013, Second edition.
- Weick, K. E., & Sutcliffe, K. M. (2001). *Managing the unexpected (Vol. 9)*: San Francisco: Jossey-Bass.

- Yadav, M. K., Babra, M. S., & Yadav, R. (2022). A Study on Management Students Employability Skills Through Alumni Perspective. *Journal of Positive School Psychology*, 10861–10870-10861–10870.
- Zainol, N. R., & Al Mamun, A. (2018). Entrepreneurial competency, competitive advantage and performance of informal women micro-entrepreneurs in Kelantan, Malaysia. *Journal of Enterprising Communities: People and Places in the Global Economy*, 12(3), 299-321.
- Zeb, A., & Ihsan, A. (2020). Innovation and the entrepreneurial performance in women-owned small and medium-sized enterprises in Pakistan. Paper presented at the Women's Studies International Forum.
- Zia, A., Tan, P. L., & Subramaniam, G. (2022). Work-life balance: family satisfaction of TVET as human capital investment in Malaysia. *Journal of International Business, Economics and Entrepreneurship (JIBE)*, 7(2), 55-63.