

Empowerment of Women's Leadership Through Various Technical and Vocational Education and Training (TVET) Programmes

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Abstract

This systematic literature review identifies women's leadership empowerment through various Technical and Vocational Education and Training (TVET) programmes. Women in leadership positions offer numerous advantages and play a crucial role in achieving gender equality and fostering a more inclusive and prosperous society. 20 articles based on qualitative and quantitative research from prominent research platforms such as Scopus, Directory of Open Access Journal (DOAJ), and Google Scholar were analysed using PRISMA guidelines. The review determines nine training programme domains and their impact on the development of women's leadership, such as Change Management, Coaching and Mentoring, Conflict Resolution, Communication Skills, Gender Equality, Inspiring workers, Leading Innovation, Problem-solving, and Project Management. The findings reveal the significance of implementing and expanding specialised TVET programmes to ensure women's active participation and leadership in various sectors. This study highlights the transformative potential of TVET in empowering women and calls for further research and policy development in this field.

1. Introduction

Fostering women's empowerment and leadership is one of UNESCO's two global priorities (UNESCO, 2017). These priorities are predicated on the belief that advancing women's leadership and empowering them is essential to advancing social justice, gender equality, and sustainable development. Making sure that women have equal access to economic opportunity, education, and decision-making processes is an important part of promoting women's empowerment in order to contribute to national development. (Olufemi *et al.*, 2011). Women's leadership empowerment is a critical component of achieving gender equality and promoting social progress. Active participation of women in leadership positions brings diverse perspectives, such as change management, coaching and mentoring, conflict resolution, communication skills, gender equality, inspiring workers, leading innovation, problem-solving, and project management, which are important training domains for developing women's leadership skills. These programmes provide women with practical skills and knowledge that enable them to nurture leadership skills and excel in various professional sectors.

TVET programmes include a wide range of educational and training initiatives aimed at providing women with the skills and competencies needed for specific occupations. According to Bt and Uleanya (2019), these programmes

combine theoretical instruction with hands-on training, allowing learners to gain hands-on experience in their chosen fields and develop real-world skills that are needed by industries. While TVET programmes have traditionally focused on the development of technical and vocational skills, they also have the potential to significantly contribute to the empowerment of women's leadership. Chiloane (2010) states that women who participate in TVET programmes reap numerous benefits that boost their leadership potential. Increased wages, for example, as a result of acquiring marketable skills through vocational training can economically empower women by providing them with financial independence and the confidence to pursue leadership roles. According to a study conducted by Hill (1995), women who completed training reported higher wages and better job opportunities than those who did not. This economic empowerment provides a solid foundation for women to challenge societal norms and assume leadership positions.

Change management training can help empower women leaders by providing them with the skills and knowledge they need to navigate and lead organisational transformations. This is the reason women in leadership are different compared to men's styles; however, women who wish to be effective leaders should be encouraged to behave considerately and to improve their participative management skills, not to act more like men (Watson, 1988). This training assists women leaders in managing change effectively, inspiring and motivating their teams, and achieving successful outcomes by boosting their confidence, effectiveness, and resilience by learning change management skills. They become better equipped to handle organisational transformation challenges and inspire their teams to embrace change and achieve success.

For women to be able to change and transform their organisations, they need mentors to coach them accordingly. According to Vinnicombe Singh (2002), coaching and mentoring help women leaders succeed in vocational training and beyond by providing personalised guidance, skill development, self-confidence building, networking opportunities, emotional support, and long-term career development. This is very important when women leaders face disagreements about work procedures, employee needs, interests, and ideas, as well as personality clashes that can cause workplace conflict. Feminist ideology sometimes embeds complexity and internal paradoxes, which infiltrate organisational structure, operational processes, and activities (Desivilya and Yassour, 2008).

Apart from that, women should have communication skills when dealing with various characters in an organisation. Zulu (2011) states that strong interpersonal and communication skills, information and power sharing, professionalism and integrity, servant leadership, and participative, collaborative, androgynous, and transformational leadership styles are characteristics of female leadership that bring them in line with gentlemen, who are dominant in top management of an organisation. Therefore, it is crucial that everyone committed to promoting gender equality is aware of the factors that increase both men's and women's access to leadership opportunities and their capacity for success in leadership positions. (Kark and Eagly, 2010).

Women leaders gain the skills and competencies needed to communicate a compelling vision, motivate and engage their teams, and create a positive work environment that fosters innovation through training programmes that empower women to inspire employees, lead innovation, solve problems, and manage projects effectively. They learn problem-solving skills, critical thinking, and innovative approaches to overcome obstacles and drive continuous improvement. Some potential reasons for the positive effect of women on performance include improved innovation and problem-solving processes in more diverse top management teams, as well as the possibility that women on a team perform better. (Welbourne et al., 2007). Furthermore, women leaders learn project management skills such as task planning, organisation, and coordination to ensure successful project execution. Women leaders who develop these skills are better able to inspire their teams, drive innovation, tackle complex problems, and successfully manage projects, all of which contribute to the overall success and growth of their organisations.

Through the cultivation and enhancement of these skills, female leaders possess the ability to proficiently guide their organisations amidst a multitude of challenges. The amalgamation of various skills acquired from diverse programmes enhances individuals' overall leadership competence, enabling them to effectively inspire and motivate teams, foster innovation, resolve challenges, and proficiently oversee projects. Furthermore, the amalgamation of these proficiencies equips women leaders with a comprehensive set of tools to effectively navigate the intricacies of their positions and generate constructive influence within their respective institutions.

2. Methodology

This study is founded on a thorough and methodical review of literature spanning almost the last decade, which is from 2015 until 2023. Through a comprehensive analysis of various academic sources, including scholarly articles, research papers, and publications from reputable journal platforms such as Scopus, the Directory of Open Access Journals (DOAJ), and Google Scholars, both qualitative and quantitative research designs were identified. These databases were selected due to their extensive coverage of academic literature in the field of education, particularly women's leadership through TVET programmes. Based on the study's objectives, the inclusion criteria for selecting studies were established. Relevant for inclusion were studies that examined how TVET programmes empower women's leadership. The objective of this study is to identify and implement various TVET programmes to empower women's leadership. This study follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) reporting guidelines to ensure a rigorous and transparent literature review. PRISMA is a standard framework for conducting systematic reviews and meta-analyses that

promotes consistency, reliability, and reproducibility in the research process. According to Knobloch *et al.* (2011), using checklists such as PRISMA is anticipated to enhance the reporting efficacy of a systematic review and offer significant transparency in the paper selection procedure within a systematic review.

Figure 1 shows the process of document selection using the PRISMA concept. In the initial phase of the systematic literature review, a comprehensive search was conducted using Scopus, DOAJ, and Google Scholars, the designated research journal platforms. The search consisted of entering pertinent keywords related to the study's topic to retrieve articles that met the research criteria, such as 'change management', 'coaching and mentoring', 'conflict resolution', 'communication skills', 'gender equality', 'inspiring workers', 'leading innovation', 'problem-solving, and 'project management'. In total, 300 articles were found, consisting of 50 articles from Scopus, 75 articles from DOAJ, and 175 articles from Google Scholars. However, remember that these platforms have some limitations, particularly regarding access to full articles. To overcome this limitation, inaccessible items were removed using a manual exclusion process. Articles were screened for certain criteria during the manual exclusion process. Articles written in languages other than the primary language of the research (such as Russian or French) are initially rejected. This ensured that language barriers did not impede a thorough literature review. Because the purpose of this study was to include only freely available research, articles that required a paid subscription were excluded for a more in-depth analysis. Various resources, including publicly available articles, have also been included. Furthermore, articles published before 2015 were not considered. Articles published within the past nine years are eligible because they provide a more current perspective.

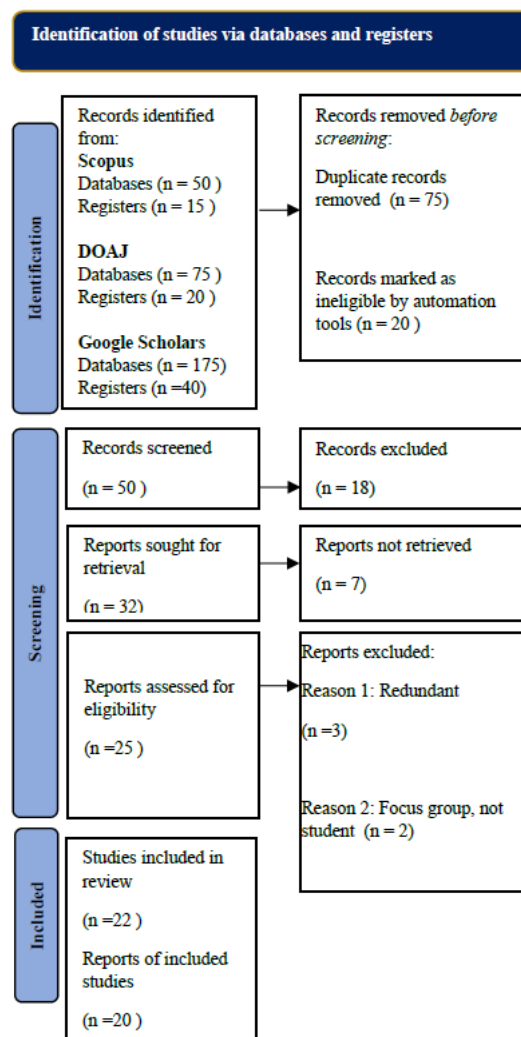


Fig. 1 PRISMA flow diagram of document selection.

3. Result

Technical and Vocational Education and Training (TVET) programs empower women by contributing to their leadership development and skill-building. Table 1 analyses different TVET programmes' contributions to women's leadership development and skill-building. A comprehensive analysis of TVET programs' contributions

to women's leadership development and skill-building should consider both quantitative and qualitative indicators, considering the broader socio-economic context and the specific needs and aspirations of women in diverse communities.

Table 1 Analysis of different TVET programmes' contributions to women's leadership development and skill-building

No	Author	Research focus	Aspect
1	Minani and Sikubwabo (2022)	Women's Empowerment Through Technical and Vocational Training (Tvet) In Rwanda's Rubavu District	TVET empowers Rwandan women and improves their skills. Hands-on skills have helped women become more independent by giving them access to traditionally male jobs, building their confidence and self-esteem, and making it easier to get jobs. Entrepreneurship skills help women set business goals, improve their social and economic status, and become self-sufficient. Communication skills help women express their thoughts, feelings, and choices and use their knowledge and skills to get jobs. The study recommended that the Ministry of Education (MINEDUC), Rwanda Polytechnic (RP), Rwanda TVET Board (RTB), and TVET schools continue to encourage women to pursue technical and vocational training to compete in the job market.
2	Ogema <i>et. al</i> (2021)	Women's socioeconomic empowerment vocational training centres in Nakuru Town, Kenya	Leadership boosts vocational training for women and girls. Leaders should encourage the creation of more vocational centres to empower women and girls by increasing wages, job mobility, job opportunities, entrepreneurship, and social change.
3	Khalid <i>et. al</i> (2021)	Examine how the women's business education and leadership training programme impacts and contributes to women's empowerment at a higher institutional level.	Post-training evaluations showed improved knowledge, tools, and leadership. The training programme encouraged women to change their self-image and gain confidence to change society. Leadership training works, according to the findings. Training improves women's knowledge and behaviour. Training programmes help women develop personally and professionally. The programme helped women understand work-life challenges and develop personal skills to gain equal rights.
4	Ekanayake (2021)	Female Inmates' Perceptions of the Effectiveness of Prison-Based Vocational Training Programmes in Sri Lanka	The trainers focused on seven themes regarding the effectiveness of vocational training programmes for female inmates in two Sri Lankan prisons. Good organisational support for vocational training programmes, positive reactions from female inmates to taking the training, creating opportunities for female inmates to expand their learning and helping ex-inmates find self-employment, learning and behavioural changes among inmates, promoting inter-relationships among female inmates, offering an effective incentive system for female inmates, and cost avoidance in the prison Female inmates, prison authorities, and society benefit from vocational training programmes.

5	Shah (2021)	The Influence of Education and Labour Force Participation on Women's Empowerment in Pakistan: A Case Study of District Khanewal	Age, education, and household head education empower women. Urban women have jobs, education, and infrastructure opportunities. The study suggests funding primary and secondary schools for remote women. Vocational schools would empower women socioeconomically for their future endeavors.
6	Phala and Mukonza (2021)	The Efficiency of Vocational Training and Financial Access in Alleviating Poverty among Rural South African Women	Women are the family's heart, and vocational education and training reduce poverty. Vocational education and training empower women and increase their competitiveness, giving them better lives and living opportunities. Rural families and community's benefit. Women's economic empowerment reduces poverty, according to responses. The South African government should improve vocational training and financing to reduce rural poverty.
7	Niharika and Singh (2020)	Women and Development in India: Empowering Women in The Hazaribag District Through Skills Development	The policy and institutional framework for teaching women business skills, vocational training, and education have made it easier for women to succeed financially. The National Skill Development Policy and Mission were established by the Indian government in 2009. These were designed to help people get jobs, learn skills, and start businesses. Skill-building and job training empower women, according to this article.
8	Biswas <i>et. al</i> (2020)	Participation in household decision-making among married women in Bankura, West Bengal, both rural and urban areas	Both study areas had a majority of married, homemaker, secondary-educated participants. Rural women participated less than urban women. Participation was statistically related to age, occupation, and family type in urban and rural areas. Vocational training and a supportive job market are essential for women's participation in household decision-making.
9	Djan and Seminary (2020)	Women's Educational Leadership Challenges in Tano North Municipality, Ahafo Region, Ghana	Mentoring, professional development, and leadership and administrative support help women leaders succeed. To prepare women for leadership roles, Tano North Municipal Education Office and other gender-based groups should regularly hold leadership training seminars.
10	Adhikari (2019)	Cosmological Orientation in Promoting Short-Term Mobile Skill-Trainings: A Narrative Inquiry on Women's Lives in Nepal	Nepalese women enrol in the short-term mobile skill-training programme because they see it as a way to rise in society. Due to family and friend obligations, they prefer a convenient and brief training location and programme. This study's findings can be used to create effective plans and policies for short-term vocational training in mobile settings for women to improve their socioeconomic status without compromising their family values.
11	Korber and Oesch (2019)	Employment and earnings in Switzerland over the life course: Vocational versus	Vocational education has comparable job prospects to general education in the second half of workers' careers. Vocational education lowers

		general education	earnings after age 30, especially for women. Vocational degrees prevent unemployment but flatten lifetime earnings curves.
12	Bonzet and Frick (2019)	Gender transformation experiences among Western Cape TVET Sector women leaders: A narrative response	Gender transformation has helped female leaders advance. Some respondents gave up their leadership ambitions due to gender stereotyping and gender-based discrimination. The narratives can guide gender transformation in TVET college leadership for all genders, despite the small sample size.
13	Williams <i>et. al</i> (2018)	Women's challenges in technical and vocational education: A case study of Gusau Federal College of Education (Technical).	Technical and vocational women face financial constraints, sexual harassment, childbirth while studying, insufficient educational facilities, and unqualified lecturers. These obstacles hinder women's technical and vocational education. The study recommended that the government provide stipends, a good learning environment, and the necessary educational facilities for women in vocational and technical education.
14	Osman and Abdulai (2018)	Women's Representation and Participation in Local Governance: A Case Study of Ghana's Sissala East District	Low female participation was caused by cultural and male prejudices against women, low economic empowerment, low self-confidence, low education, and excessive marital obligations. The study suggested civic education, economic empowerment, and leadership training to increase women's participation in local governance in the district
15	Ombati (2017)	The purpose of this study is to look at data on the patterns, nature, and extent of women's legislative representation in Kenya, as well as the role of education in increasing their participation.	More gender equality in education and training improves women's chances of holding legislative leadership positions in Kenya.
16	Iliško <i>et. al.</i> (2017)	Examine the cultural roots of gendered inequality in positions of leadership and economic power, as revealed by the literature review and interviews. Interview data reveals the obstacles women must overcome to advance in their careers and their success stories.	International law and the UN's goal of gender equality in all important areas of life will strengthen democracy and improve its functioning. Management programmes in higher education can boost women's leadership potential by teaching assertiveness and critical thinking.
17	Garbuja & Pasa (2016)	Women Empowerment through Technical and Vocational Education and Training: A Case Study from Bima VDC in Myagdi District, Nepal	Technical and vocational training is crucial to women's empowerment and local social and economic development. The VDC promotes social and economic development by empowering capable and skilled women to make decisions, lead, teach, and change.

18	Kumari and Laxmikant (2015)	Women Empowerment through Rural Women Participation in Vocational and Technical Programmes in the Vegetable Production Industry in India	Intervention points exist in vegetable farming. Women cleaned land, sowed seed, transplanted vegetable gardens, hoed, weeded, scared birds and rodents, harvested and processed vegetables, and stored seed. Women don't participate in operations due to fatigue, muscle power requirements, and decision-making inexperience. Due to custom, tradition, ignorance, illiteracy, and a lack of extension programme participation, women only supported decision-making. Education, technical training, and extension facilities for women can improve tomorrow.
19	Kirkup (2015)	Education funding policies and STEM careers: A UK All Party Parliamentary Group on Sex Equality review.	STEM education dominated this time. Even neighbouring European countries have vastly different apprenticeship systems and value vocational education differently. However, while the numbers of students involved can vary greatly, the impact of vocational education funding policy is likely to be comparable, and in this meeting, government funding policy was identified as a major factor in the continued underrepresentation of young women in STEM vocational education.
20	Segilola (2015)	Assessing rural women's basic training needs in Osun State, southwest Nigeria, in light of the Millennium Development Goals	Vocational training for rural women in Osun State is ineffective for self-reliance; training centres have problems; and government commitment to vocational training affects rural women's empowerment. To empower rural women in the state, self-sustaining enterprises must be developed through an effective vocational training programme, leadership, financial and logistical support, and so on.

Table 2 below shows the concept matrix domains for women's leadership TVET programme. There are nine domains identified from 20 articles such as change management, coaching and mentoring, conflict resolution, communication skills, gender equality, inspiring workers, leading innovation, problem solving and project management.

Table 2 Concept Matrix Domains for Women's Leadership TVET Programme

No	Author (s)	PROGRAMME DOMAINS								
		Change Management	Coaching and Mentoring	Conflict Resolution	Communication Skills	Gender Equality	Inspiring workers	Leading Innovation	Problem-Solving	Project Management
1	Minani and Sikubwabo (2022)	✓			✓					
2	Ogema et. al (2021)						✓	✓		
3	Khalid et. al. (2021)					✓	✓	✓		
4	Ekanayake (2021)		✓		✓		✓			✓
5	Shah (2021)	✓	✓							
6	Phala and Mukonza (2021)	✓	✓							
7	Niharika and Singh (2020)	✓					✓			
8	Biswas et. al (2020)		✓				✓		✓	
9	Djan and Seminary (2020)		✓				✓			✓
10	Adhikari (2019)		✓							✓
11	Korber and Oesch (2019)	✓							✓	
12	Bonzet and Frick (2019)					✓		✓		
13	Williams et. al (2018)		✓	✓						
14	Osman and Abdulai (2018)			✓						✓
15	Ombati (2017)					✓	✓			
16	Iliško et. al (2017)				✓	✓				
17	Garbuja & Pasa (2016)		✓					✓		
18	Kumari and Laxmikant (2015)						✓		✓	
19	Kirkup (2015)						✓			✓
20	Segilola (2015)								✓	✓
	TOTAL	5	8	2	3	4	9	4	4	6

4. Discussion

Referring to Table 2 the most dominant training is Inspiring workers followed by coaching and mentoring. Motivation is key to employee performance and company success. Management can help motivate and encourage their employees by understanding the nature or concept of motivation and how it relates to and impacts the workplace environment and employee well-being. Learning motivational techniques and how and when to use them to encourage employees to reach their highest potential is essential for effective leadership. According to Ogema et al (2021), Leadership is essential in increasing vocational training opportunities for women and girls through motivational training. Recognizing the transformative impact of vocational training, leaders should actively promote and support the establishment of a greater number of vocational centers to empower women and girls by providing them with increased wages, job mobility, job opportunities, entrepreneurship, and the opportunity to contribute to social transformation and change their self-perception and gain confidence in order to effect transformative social change. (Khalid et. al, 2021). Apart from top management motivating women in empowering their leadership skills, they must According to Ekanayake (2021), good organizational support for vocational training programmes may lead to positive reactions from women inmates to taking the training, creating opportunities for female and to expand their learning as well as promoting inter-relationships among workers.

The coaching and mentoring programme also is crucial based on the review of 20 articles, which contributes the second highest dominant among other training programmes domains. According to Shah (2021), education positively impacts women's empowerment through mentoring and coaching. Urban women have many jobs, education, and infrastructure opportunities. As such those urban women who have been trained in leadership roles should train those women residing in remote areas. This can start as early as the school era through

vocational training by strengthening and empowering women socio-economically for their future endeavours. This is supported by the study from Biswas *et al.* (2020) where the level of overall participation was higher among urban women than among rural women in terms of leadership skills. In both urban and rural areas, the level of participation was statistically related to age, occupation, and family type. Women's empowerment through vocational training and a favourable environment for job opportunities are critical for increasing women's participation in household decision-making. Mentoring, professional development, and leadership and administrative support have been shown to help women in leadership positions excel as reported by Djan and Seminary (2020). In the study, it was suggested that the Tano North Municipal Education Office and other gender-based groups organise leadership training programmes or seminars for women on a regular basis to prepare them professionally for leadership positions.

TVET programmes help improve women's skills in many aspects, such as hands-on, as we all know that women are multitaskers, and these skills help women become more independent. Minani and Sikubwabo (2022) emphasised in their study the importance of hands-on skills, which have helped women become more independent by giving them access to jobs that were traditionally done by men, building their confidence and self-esteem, and making it easier for them to get jobs in Rwanda and India. Nevertheless, Sánchez-Gordón *et al.* (2016) mentioned that getting the best out of people and changing them is not always easy, and it is a challenge that cannot be ignored. That is why organisations should develop an institutional framework for teaching women business skills and giving them vocational training, which gives women a high positive impact on change management and leadership skills compared to general education (Korber & Oesch, 2019). (Niharika and Singh, 2020). Men and women should work together in top management and always communicate with each other to grow the organisation. Communication skills are a vital element in empowering leadership among women, ensuring the equal participation of men and women in all significant spheres of life, and upholding international law and the United Nations. (Iliko *et al.*, 2017).

Stereotyping and gender bias happened a long time ago, and many initiatives have taken place from year to year talking about gender bias in terms of political, economic, and social aspects. According to Hooghe *et al.* (2015), gender bias in the media persists even when the political system evolves rapidly towards equal representation. There was a study carried out by Williams *et al.* (2018) showed that women in technical and vocational education face financial constraints, sexual harassment, childbirth while studying, insufficient educational facilities, and unqualified lecturers. Additionally, Kirkup (2015) reported that STEM education was the primary concern because of the low participation of young women, which has a significant impact on the continued underrepresentation of young women in STEM vocational education. These conflict resolutions towards women have a negative impact on women's pursuit of technical and vocational education; however, the study suggested that the government should provide stipends, a good learning environment, and the necessary educational facilities to women pursuing vocational and technical education so that negative stigma towards pursuing TVET programmes can be avoided and more gender equality in education and training improves women's chances of holding legislative leadership positions in Kenya, as reported by Ombati (2017).

Women's dedication to family and work is an important factor that deserves consideration. Women frequently face unique challenges in balancing family responsibilities with professional obligations. Various factors influence women's commitment to their families and careers. According to Bonzet and Frick (2019), gender transformation and improving the career advancement of women leaders in the workplace to stay relevant and competitive in rapidly changing markets have been given attention in many aspects and on governments' agendas. The importance of technical and vocational education and training in transforming women's empowerment and social and economic development at the local level cannot be overstated. Furthermore, capable and skilled women equally play decision-making, leadership, educational, and change agent roles in promoting social and economic development (Garbuja & Pasa, 2016).

Cultural and male prejudices against women, low economic empowerment, low self-confidence, low educational levels, and excessive marital obligations all contributed to low women's participation in top management in Ghana, as reported by Osman and Abdulai (2018). According to the same study mentioned, women are residing in the Sissala East District in Ghana, which is rural with more than 80% of the people living in rural settlements and engaged in farming. Due to this, one of the TVET programmes, namely self-sustaining enterprises that can empower rural women, should be implemented as proposed by Segilola (2015). Short-term mobile skill-training programmes can contribute to greater social status by adjusting commitments for women with families and professional careers. Adhikari (2019) suggested the development of effective plans and policies for providing women with short-term vocational training in mobile settings, with the goal of improving their socioeconomic status without compromising their commitment to family values and supportive role in decision-making. Kumari and Laxmikant, 2015).

5. Conclusion

The comprehensive review of 20 articles emphasises the critical role of Technical and Vocational Education and Training (TVET) programmes in empowering women and encouraging their participation in leadership

positions. Leadership development, coaching and mentoring, and closing the urban-rural divide are critical components in improving women's skills, independence, and access to job opportunities. However, persistent gender biases, cultural prejudices, and the difficulty of juggling family and work responsibilities continue to stymie women's advancement. To overcome these barriers, it is critical to address biases, promote gender equality, and create supportive environments that encourage women's leadership aspirations and allow them to fully contribute to social and economic development.

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Conflict of Interest

There is no conflict of interest regarding the publication of the paper.

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