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EMPOWERING WOMEN AT THE HIGHER INSTITUTIONAL LEVEL: ANALYSIS OF BUSINESS EDUCATION AND LEADERSHIP TRAINING PROGRAM

Summra KHALID [1*], Wang DAN [2], Amir SOHAIL [3], Wahid RAZA [4],
Bushra KHALID [5], Ahmad-UR-REHMAN [6]

[1, 2, 3]College of Business Administration, Liaoning Technical University, Hulodao, China
[4]Department of Management Sciences, Government College of Management Sciencs,WANA, South Waziristan, Pakistan
[5, 6]Department of Management Science, National Textile University, Faisalabad, Pakistan

Abstract. *Purpose* – The research study aims to assess the women's Business education and leadership training program at a higher institutional level in order to examine how the program impacts and contributes to women's empowerment. Further, this research sought to explore women's leadership training aspect that has not explicitly elucidated. Besides, this study looks upon women's self-perception by empowering them with skills and leadership capabilities to change hard-core gender stereotypes in society.

Research methodology – The sample size comprised of 82 enrolled female students in the training program. The qualitative statistics (i.e., three focus groups) evaluated with the Kirkpatrick model. The Wilcoxon signed-rank test was applied to compare pre-and post-training quantitative data (i.e., questionnaire). Effect size is measured to check the effectiveness of the training program.

Findings – The post-training evaluation revealed higher scores in knowledge, tools, and leadership skills. The training program encouraged women to bring change in self-perception and gain confidence for transformative changes in society. Findings support the effectiveness of leadership education and training programs.

Research limitations – This research conducted in a Pakistani patriarchal cultural context and one region of Pakistan (Punjab). Hence the results are carefully generalised. The long term outcomes of this leadership training program and women's performance in the job market are not studied.

Practical implications – Findings suggest that a training program positively affects women's learning, knowledge, and behaviour. Training programs empower women with practical tools for self and business development. The program encouraged women to gain better insight into work-life challenges and enhance personal competencies to gain equal rights.

Originality/Value – This research will significantly contribute to the relatively scarce literature on the effectiveness of women's business education and leadership training programs at a higher institutional level in the Pakistani context for women empowerment.

Keywords: business education, empowerment, Kirkpatrick model, leadership, program evaluation, training effectiveness.

JEL Classification: I23, I24, I25.

*Corresponding author. E-mail: *summrakhalid@yahoo.com*

Introduction

This research work summarises a case study's findings related to women's education and leadership training programs and analyses its impact on women students. Today, a globalised economy promoting the imperative of equitable education, gender equity, continuous learning, and identity-reforming opportunities to empower women through knowledge. Pakistan has decided on several vital international commitments for women's education, rights, and gender equality on different international Forums-United nations' sustainable development goals, Beijing platform for action, the universal declaration of human rights, convention about the elimination of all types of discrimination against women (Batool & Batool, 2018). The notion behind all national and international commitment is to focus on women's education and empowerment to enhance women and society's personal, communal, political, or financial power. Despite the commitments and women's empowerment and education being the heart of UN Women's 2030 agenda in Pakistan, Pakistan remains among the world's lowest-ranked countries in gender equality and women's rights (Chaudhry et al., 2012). According to the "2018 Global gender gap index", Pakistan ranked 148th among 149 countries in gender parity. Among the four worst performers, Pakistan ranked second-worst globally as the sum of women's supervisory posts is the lowest in numbers (Statista, 2018). Pakistan is categorised as the least performer in the south Asian region as very closed to 55% in terms of gender equity against India 72% and Bangladesh 68%. One of the Geneva-based organisation's annual reports traced gender inequalities among four major sectors (educational sector, health sector, financial opportunities, and politically empowering) in all countries (United Nations Development Programme, 2019). The low index of the education sector and Gender inequality is almost homogeneous in all worst-performing countries (Elvish et al., 2014).

UN aimed at escalating economic, and social development, women's empowerment through education is indispensable. Women's need to acquire a set of skills and competencies pertinent to diverse circumstances along with professionalism (United Nations, 2015). The United Nations summit in 2015 outlined the 2030 agenda of sustainability, empowerment, and development through education. Women's education, empowerment, and gender equality are some of the objectives incorporated in the UN agenda's sustainability and development goals (United Nations Population Fund, 2015). For economic development and sustainability, 17 Goals of development were initiated, which required prompt action by all countries. One of the essential principles of UN programs and procedures is to capitalise on feminine talent and equal job opportunities at all management levels of governmental and monetary policy-making for females (UNESCO, 2017). UN's objective is to endorse gender parity in education as a behavioural learning goal.

In Pakistani society, gender roles affect women's perception of their capabilities, self-awareness, esteem, and future ambitions, and they perceive themselves not as competent. In developing countries like Pakistan attaining education commitment, women's empowerment is among the subjects where the government tries to achieve the desired outcomes (Salik & Zhiyong, 2014). Women's Business education and leadership training are crucial for the empowerment, behavioural development, and economic growth of the country as women comprise 49% of the country's overall population (Hameed et al., 2014). Article 37(b) and (c)

of the Pakistani constitution states that technical and professional education is equally associated with all at the higher education level based on merit (Khan et al., 2013).

Much of the research literature has documented no development without Business education, gender parity, and practical training (Aelterman et al., 2013). These areas have been a long-determined preference for the united nations, UN women in Pakistan, and many state-owned organisations (Miotto et al., 2019). However, no research study results have been collected, mainly related to women's educational and leadership training in Pakistan. Women leadership and leadership training areas were not elucidated before. However, in the past, comprehensive research studies were undertaken on leadership behaviours and education. Nevertheless, the present study is related to more specific aspects of education, particularly women leadership training, because, in the past, most studies conducted by the NGOs or agencies were about women's economic condition or education. Hence this research study is essential to know these programs' results and how they influence and improve women's image and societal development.

To achieve international and national commitments and agenda for women's education and equality, different public sector training, and development programs were launched in Pakistan. Pakistan's public sector development program has outlined the agenda to strengthen women's capacity in the socio-political and business world by acquiring the necessary skills to deal with negative stereotypes centred around female leadership behaviours. Hence, the research study aims to assess the women's Business education and leadership training program at a higher institutional level in order to examine how the program impacts and contributes to women's empowerment. Further, this research sought to explore women's leadership training aspect that has not explicitly elucidated. Besides, this study looks upon women's self-perception by empowering them with skills and leadership capabilities to change hard-core gender stereotypes in society. Business education and leadership training programs certainly benefit Pakistani society is changing hard-core gender stereotypes and achieving the UN agenda for women's rights.

As this research work base on a case study approach; thus, the primary objectives drawn from this research paper illustrate the training program results. This research study was structured to assess the training and its impact on women participants' skills, learning, and behaviour. Hence the paper used the mixed-method approach. In the quantitative approach, a self-administered survey instrument used to determine students' self-assessment in terms of skills, knowledge, and training program satisfaction. Zoho sheets and Microsoft excel used to manage data, and various statistics applied by using SPSS V.25 software to compile the results before and after training. Qualitative methods were applied to evaluate women's self-perception by conducting three focus groups after training. Kirkpatrick's model is used to grasp participants' perceptions of behaviour change deeply. The research findings support the expediency of the leadership training program for women. After the training, female students' self-assessed ratings showed a significant increase in the level of knowledge about leadership from pre to post-training. They obtained skills and learned practical tools for future use. The training program encouraged them to bring change in self-perception, and they found increased confidence to break down the barriers mentioned in the literature. The subsequent section of the article explained research methods and statistical analysis further, and ultimately, the research study includes results, discussion, conclusion, and limitations.

1. Literature review

For developing countries, reducing gender parity, economic development, and women's empowerment in society is indispensable without the educational program (Noureen, 2015). The business education and training programs aim to highlight the impediments women face in employment and how they can enhance their self-belief, improve their communication skills, and develop other positive transformation competencies. Since many of the women's empowerment projects and educational programs in Pakistan have stimulated development in attaining specialised skills, focus on learning methods, and stressing the value of Business education for skills and individual growth in a fast-paced global village (Khurshid & Saboor, 2013). According to WEF, Pakistan has improved wage equality and the educational sector for the fiscal year 2018 (Countryeconomy, 2018). However, women are understating in the field of science and technology, engineering, and analytical skills. *Empowerment* is a development cycle of increasing folks' skills to make selections and convert those selections into desired outcomes (Jumani et al., 2013). A woman is said to be fully empowered if she has the opportunity to get substantial resources, equal employment, political participation, legal rights, health services, and quality education. Women's empowerment, skills, competencies, capacities, abilities, and expertise are fundamental aspects that need to acquire through education (Sohail, 2014). Leadership is related to collaboration, provision, teamwork, authorisation, and association (Dalati & Alchach, 2018). Collaboration, problem-solving, critical and analytical thinking, and decision-making are general skills and competencies required for empowerment and Leadership (Paulienė, 2012). Regarding leadership theory, previous literature identified two types of behavioural orientations. *Task-oriented* leaders are resolute, determined, and own a work style with clearly defined priorities and agenda (Poultney & Fordham, 2018). Task-oriented leaders have clear objectives, established procedures, issues, distinct goals, and implements a compensation structure (Raudeliūnienė & Kordab, 2019). *Transformational leadership* is more likely to influence, team-oriented, pragmatic, and based on interpersonal communication abilities (Riaz et al., 2012). Transformational leaders are more likely inspirational, influential, and intellectual stimulators (Turnbull et al., 2012).

For development in fast-paced economies, survival in globalisation, and changing dynamics in organisations, women need to empower with education for transformational leadership, as this leadership style is related to women (Keitsch, 2018). Furthermore, considering leadership ability, problem handling, communication skills, self-awareness, experience, and decisiveness is mandatory for professional advancement (Yousaf et al., 2019). Previous literature has shown that women tend to be more socially accountable, possess a more responsible attitude for the environment, and consciously fulfil corporate duty (Showunmi & Kaparou, 2017). Corporate social responsibility, better transparency, a more significant exhibition of ethics, innovative initiatives, and diversity would increase in the workplace if women received opportunities to serve at managerial levels (Setó-Pamies, 2015). Besides this, education, empowerment, and gender equality are elementary areas for legislative to reduce differences (Alba-Hidalgo et al., 2018). Despite that, so-called glass-ceiling exists in females' access to higher hierarchal positions in all the world's countries' political, economic, and educational sectors, including Pakistan (Jabbar & Imran, 2013). Education forms an apogee

of empowerment, self-realisation, economics, and self-development in the arena of sustainability and leadership. Business Education is the most crucial issue of the modern era that needs to vow to ensure women's rights for equal employment opportunities and administrative positions (Khatri, 2016). According to the data of the World Economic Forum 2018, females' access to managerial level is just 34% and less than 7% in the four least performing states (Pakistan, Yemen, Saudi Arabia, Egypt) (World Economic Forum, 2018). The UN's statistics show that females possess only 19.8% of political leadership and top management positions (UN Women, 2018). The South Asian region was the second least scoring area in the year 2018 according to the indexing of Global Gender Gap about an average gender difference of 34.2%, as above to Middle-Eastern and North-African region, while behind Sub-Sahar African region (Cann, 2018).

According to the Economic Survey of Pakistan, in the public-sector specialised institutes and public universities, the 246757 total students were enrolled with 30% women and 70% men. During the Fiscal year 2018–2019, minor improvements were observed in Pakistan's educational sector as 185 higher academic institutes were functional. Overall, assessing the educational sector enrolment level increased by 7.9% during 2018–2019 compared to 2017–2018 (Economic Survey of Pakistan, 2019). Concerning year-by-year growth, Pakistan has increased the education sector index by taking many initiatives about women's education compared to previous years. Many research literature identifies the impediments that create hindrances in women's access to managerial positions worldwide (Bustamante-Gavino et al., 2011). Many of the generic thematic problems lie in Pakistani culture like norms, discriminatory institutional and structural impediments, status quo, and discordancy of the work-family life balance (Khurshid, 2016). The previous literature stated that many cultural norms consider women inferior to men and perceive effective leadership as men's attributes (Afzal et al., 2009). Most human capital literature and theories explained the impediments to women's access to supervisory level is due to stereotypes persist in culture, lack of specific training and development, Business education, unawareness of own capacities, and lack of self-trust (Carmona et al., 2018).

In a typical societal structure, women are scared to disrupt the status quo and allow the social norms to create hindrance in empowerment. Recent research studies also highlighted many gender-specific barriers at workplaces (Hafeez et al., 2019). Harassment, unfair recruiting, unequal wage structure, glass ceiling are some of the barriers that make it hard for females to excel at the workplace or have fair compensation for their job (Nawaz, 2009). For women, obstacles in obtaining leadership capabilities are decodes into inadequate job market opportunities (Patel & Nayak, 2013). Hence, Business education becomes a primary means for professional development and empowerment. Work-related practices and providing professional training and tools to resolve issues that are likely to arise during managerial jobs might be related to leadership development (Bagieńska, 2016). Some programs that specifically emphasise women's leadership must equip females to deliver an appropriate reaction to circumstances and situations they will probably encounter in a professional career (Ariani, 2015). As an example, communication is considered a critical leadership quality. However, in Asian culture, women are considered introvert, emotional, and less decisive (Nie & Xing, 2019).

In contrast, men are considered less emotional, authoritarian, and more direct in communication (Tamim, 2013). In terms of Gender labels, leadership linked with masculine abilities such as supervisors, high self-esteem, decisiveness, intellectual aptitude, strong communication, and emotional stability (Kumar, 2016). Hence, social structure and norms have linked all these traits with masculinity and considered women not suitable for leadership as females' vocal style is considered uncertain, anxious, and less authoritarian (Shimamoto & Gipson, 2015).

Consequently, shared societal roles and environment forecast the degree by which both genders perceive as skilled and capable of administrative positions in their management (Permanyer & Boertien, 2018). The stereotype thinking, lack of self-trust, and lack of institutional trust in women showed enough why females are far behind in career enhancement and empowerment (Faiz et al., 2017). To conclude, gender stereotypes, considering women incompetent and absent of training and development programs, require concrete steps towards women leadership programs at government, organisational, and higher academic levels (Windscheid et al., 2018). Economic and sustainable development goals can only attain if women's education receives the same consideration as a man (Bushra & Nasra, 2015). The Steps taken for Business education could create women's social empowerment, result in career promotion, and help them communicate their role for organisation and society (Rieckmann, 2012). Over the last few decades, to nurture females' self-trust to develop leadership capabilities, many types of training and development programs were launched in Pakistan, such for political leadership in the different region of Pakistan to increase the participation of women in leadership roles and for good governance (Khan & Rahman, 2018). At the national level, the government launched different Women empowerment initiatives to increase women's economic empowerment (Aziz et al., 2011). These programs aim to portray women as a privileged leader who is inspired, talented, self-confident, and assertive to participate in all tiers of economic and political structure. The Shared agenda of all these programs was to develop the insight of self-motivation, enhance self-confidence, educate women to make them decisive, empower them by the acquisition of leadership skills and competencies. The first section of the study provided the introduction, research background, Program Background, study objectives, methods, and sample. The second section of the paper summarises the findings, discussions, and conclusions.

2. Material and methods

2.1. Program background

The current research study emphasises the women's business education and leadership training program's outcomes, which took place during the 2019 period. Three training events of the same program conducted at three different public sector universities within the Sothern Punjab region of Pakistan. This training program aimed to develop leadership competencies among female students to empower them through Business education. The Training program tried to provide insight and solution through case studies, coaching sessions, executive's practical experiences, networking plate forms, and provide one-on-one dialogues, interactive learning sessions for balancing work life, self-management, decision making, and confidence-building to overcome barriers. At all the training events, the admission procedure completed
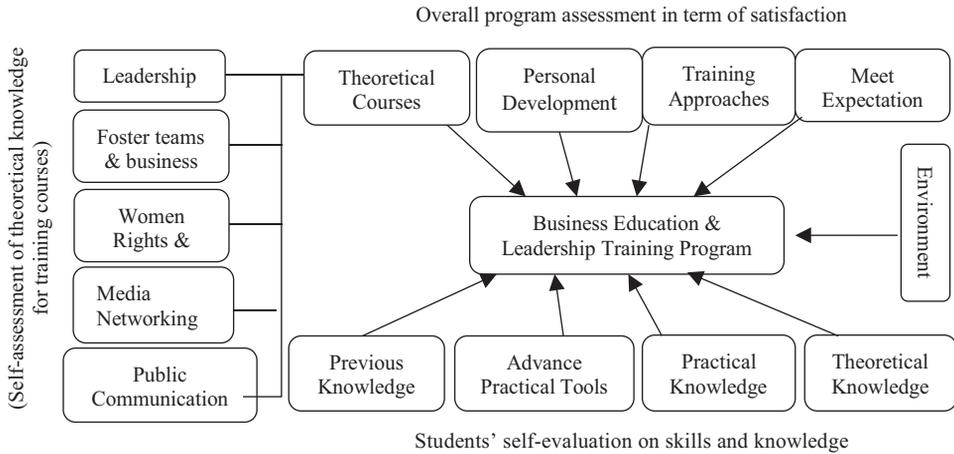
Overall program assessment in term of satisfaction

Figure 1. A summary of the program's study profile

through the selection method. All three public universities ensured that enrolled female' students in this Business education and leadership training program join from educational fields, either technical or non-technical but do not have any business studies background. In the program, the Females were encouraged to draw their concept of transformational leaders and competencies by the collaboration of community development trust and society, different Foundations, and resource centres. Because of the shared agenda, in each selected university, the Leadership program modules focused on robust training, theory classes, case studies, tours of organisations, dialogues, coaching and mentoring by parliamentarians, managers, influencing public speakers, and practitioners from different spheres of life. This research study covered the following areas of the program (see Figure 1).

Each university training program offered a theoretical module including theoretical subjects (named leadership, foster team and business, women rights media networking and public communication), a practical module, and other interactive learning approaches. The evaluation was completed based on how much previous, practical, and theoretical knowledge about leadership and courses. How training program helped women's personal development? Does training programs meet women's expectations? Does training programs meet women's expectations? How practical and conducive were the training approaches and the environment? Each university offered the same theoretical and practical content. Hence, researchers concluded the course's name to generalise ideas about the survey instrument's theoretical content. All these theoretical modules include a specific type of projections about females in the job market.

2.2. Study design and sampling strategy

In this study, necessary information conducted at three training events of the same program. The training held at three different public sector universities within the Sothern Punjab region of Pakistan. First, every university from where women were getting training considered

as a cluster. The target population was female students drawn from these three universities. All those women got selected for this study which mainly enrolled for leadership training from these universities. Based on a purposive sample, researchers select the entire population as a sample because of the relatively small population size, which permitted the exploration of the success or effectiveness of training programs for women who participated in the leadership development program. A mixed-method approach used in this study includes both qualitative and quantitative methods.

The quantitative approach used to assess the Business education and leadership training program's performance at each university – a self-administered survey instrument designed on each theoretical and practical module's common grounds. The survey instrument includes a seven-point Likert scale about a module's practical and theoretical subjects to elicit female participants' valuable opinions. The researchers conducted a pre-training survey at the beginning of the program and a post-training study after the training to analyse knowledge, skills, and behaviour changes. The final sample instrument's female student respondent was 82 female students who completed training and positively responded as no one declined to answer. The majority of females were graduate students, and they all were from diverse education fields (see Table 1).

A qualitative approach also used for the evaluation of the outcomes in this research study. At the end of the training, the focus group assesses the program's performance, business knowledge they acquired, and personality transformation. The arranged discussion and Interview method was applied to collect the data from individuals. Among 82 women respondents, ten women (total 30) from each university participated in the focus group. Kirkpatrick's four-level framework was applied to measure reaction, learning, behavioural change, and outcomes (Topno, 2012). The qualitative technique's primary objective is to fully comprehend the women's perception if either the business education and training program has triggered any change in their performance or if their concept about business and leadership competencies has transformed.

Table 1. Profile of research participants

Variables			Variables		
1. Age	N = 82	Percentage	3. Educational Field	N = 82	Percentage
18–20	9	10.98%	Agriculture	18	21.95%
21–23	32	39.03%	Engineering	15	18.29%
24–26	19	23.17%	Social Sciences	26	31.71%
27–29	14	17.07%	Law	14	17.07%
30–32	5	6.09%	Other fields	9	8.54%
33–35	3	3.66%			
2. Education level	N = 82	Percentage	4. Participants from each university	N = 82	Percentage
Graduate	47	57.32%	University 1	29	35.367%
Master	26	31.71%	University 2	26	31.71%
M.Phil.	9	10.97%	University 3	27	32.93%

2.2.1. Survey instrument validity

In this study, to ensure content validity in general, the researcher met several professional trainers and academics to point out any drawback or modification needed in questionnaire content. Afterwards, the researchers contacted the program trainers from selected three universities, who were starting implementing training programs at that time, asking them to allow the distribution of the questionnaire to female students at the beginning and end of training programs – the distribution and collection of surveys completed by the three authors themselves and kept confidential.

3. Results

3.1. Quantitative data analysis

For this study, the quantitative data analysed by classical means of descriptive approach. Zoho sheets and Microsoft excel used to create a database. The SPSS V.25 software used for the evaluation of mean, standard deviation, and variance. The quantitative data analysed the nine general aspects related to training programs. Before and after training, the quantitative data results analysed by using the median, upper-lower quartile, and non-parametric statistics. Wilcoxon signed-rank test was applied to compare self-assessment rating about skills and knowledge pre-post training. Cohen's d value use to measure the effect size. Firstly, the rating of this training program regarding overall satisfaction showed that training had done tremendously. Evaluation of a training program was interesting related to women's personal development and skills building. The assessment rating on overall personal development and meeting expectations shows satisfaction as mean 6.33 and 6.16, respectively. It is not because of the training program's agenda but also due to mentors, managers, organisational insights, and the collective efforts of all participants and instructors. The theoretical course content aspect of the training program scored better as the mean is 5.90. Students also rated the environment and training approaches 5.43 and 5.33, which showed satisfactory evaluation of training programs (see Table 2).

The Wilcoxon's signed-rank test (Table 3) provides the evaluation of pre-post training ratings of female participants. The analysis showed the overall significant improvement in theoretical, practical knowledge gained and future tools learned in the training program.

Table 2. Overall program assessment in term of participant's satisfaction

The dimension of overall program satisfaction	N	Mean	SD	Variance
1. Meet Expectation	82	5.43	1.054	1.112
2. Training Approaches	82	5.33	1.361	1.853
3. Environment	82	5.90	1.096	1.200
4. Personal development	82	6.33	1.066	1.137
5. Theoretical Course	82	6.16	1.116	1.246

Note: Rating scale: 7 – exceptionally satisfied, 6 – satisfied, 5 – relatively satisfied, 4 – neither satisfied or dissatisfied, 3 – relatively dissatisfied, 2 – dissatisfied, 1 – exceptionally dissatisfied.

Before leadership training (p < 0.001)). The quartile ranges of rating related to theoretical course content were 4 to 6 before training. After the training, all the items quartile range increased from 5 to 7. The practical knowledge aspect and advanced future tools showed a higher gain in knowledge. While self-assessed theoretical and previous knowledge marginally increased. Notably, all four items' scores reached up to 7, which showed a tremendous gain. Survey items related to useful tools for problem handling in the future rated high as values increased before and after training. Overall training program rated on the following dimensions: theory, practicality, satisfaction, and self-development of students. Above all, women rated leadership training and business knowledge program in satisfactory manners and gave more weight to the practical aspect, and future tool learned in the training program.

Moreover, the mean scores of practical knowledge and advanced future tools are significantly higher after the training (Means = 6.01, 6.18, respectively) than before (Means = 4.83, 5.17, respectively). The Cohen d related to change depicted the large substantial effect as effect size is more significant than 0.8 (d = 1.149, d = 0.998 respectively) in pre-post training of these two items. Theoretical and previous knowledge items' mean scores have improved (Means = 5.85, 5.48, respectively) from (Means = 4.90, 4.83, respectively).

Table 3. Wilcoxon signed ranked analysis of Pre-Post Training about skills and knowledge

Test Statistics				
	Theoretical Knowledge	Practical Knowledge	Previous Knowledge	Advance future tools
Pre-Training M (25~75)[a]	5(4~6)	5(4~6)	5(4.75~6)	5(4~5)
Post-Training M (25~75)[a]	6(5~7)	6(5.75~7)	5(5~6)	6(6~7)
Z-Value	−5.009	−6.179	¢4.481	−5.156

Note: [a] Rating measure: 7 – Well Adept to apply both efficiently, 6 – know how to apply knowledge and skills, 5 – Possess complete relevant knowledge and skills, 4 – Possess some skills and some knowledge, 3 – Posses some knowledge, 2 – heard about it, 1 – know nothing, M – Median, 25 – First quartile range, 75 – Third quartile range, all P-Values < 0.001.

Table 4. Students' Pre-Post training self-evaluation on skills and knowledge

Descriptive Statistics						
Items	N	Pre-Training		Post-Training		Effect Size Cohen d[a]
		Mean	Std. Deviation	Mean	Std. Deviation	
Theoretical Knowledge	82	4.90	1.213	5.85	.957	0.86
Practical Knowledge	82	4.83	1.184	6.01	.839	1.14
Previous Knowledge	82	4.62	1.224	5.48	1.068	0.74
Advance future tools	82	5.17	1.163	6.18	.833	0.99

Note: Cohen d value 0.20 measured small, 0.50 represents moderate, and 0.80 value considered large, [a] Revealed the standardised difference of two means.

The Cohen d showed that women's theoretical and previous knowledge about subject matters was not so much as this training program increased their level (d = 0.869, d = 0.748 respectively) significantly. The overall pre-training and post-training scores provided in Table 4.

The subjects incorporated to enhance their theoretical base and practical knowledge about business and Leadership were Media Networking, Public Communication, Leadership, Self-Image Branding, women's rights and law, Fosters Teams, and Business. Among all these, public communications, media networking, and personal brand image got the highest score in terms of outlined objectives and content to enhance their knowledge base. Hence post Training score is different from pre-training, which showed the effectiveness of the training program. This training's main agenda was to get information, either programs and courses have contributed to women living or not, have they developed their capabilities and knowledge base for business and leadership? Table 5 provides the overall improvement in course content as the first and third quartile range (Pre-Training) overall increase from (1~3) to (4~7) after the training.

Again, the Wilcoxon Signed Ranks test was applied to measure results to corroborate the vigorousness of descriptive statistical examination. Moreover, the value these courses added to women's life related to skills and business knowledge. The survey instrument provided better information about the effectiveness of content women learned in this training program: pre and post-training descriptive statistical results of all the courses provided in Table 5. Courses evaluated in terms of content and skills development. As can be seen, personal brand image, media networking, and Leadership courses were the top-rated among other courses of training because of a higher rating. All the items ranged increased (up to 7) after the training. The value of a significant difference among these should be p < 0. 001. Considering the: public communication, women's rights and law, foster team, and business were the least rated courses.

Despite all, Table 6 provides the descriptive statistical analysis of data, the variance, means, and standard deviation gave us a more accurate picture. Furthermore, a Cohen d test helped to analyse the differences before and after training. Post-training scored significantly improved the knowledge base as Cohen d value is tremendously outsized (above 0.80)

Table 5. Result of Wilcoxon signed ranked analysis of Pre-Post Training courses effectiveness

Test Statistics						
	Media Networking	Public communication	Leadership	Self-Image	Women rights and law	Foster team and business
Pre-Training M (25~75)[a]	2(2~3)	2(2~3)	2(2~3)	2(1~3)	2(2~3)	2(1.75~3)
Post-Training M (25~75)[a]	6(5~6)	6(4~7)	5(5~6)	7(5~7)	5(4~6)	4(4~6)
Z-Value	−7.619	−6.863	−6.781	−7.848	−7.574	−7.071

Note: [a] Rating measure: 7 – Well Adept to apply both efficiently, 6 – know how to apply knowledge and skills, 5 – Possess complete relevant knowledge and skills, 4 – Possess some skills and some knowledge, 3 – Posses some knowledge, 2 – heard about it, 1 – know nothing, M – Median, 25 – First quartile range, 75 – Third quartile range, all P-Values < 0.001.

Table 6. Comparison of the program's courses effectiveness Pre-Post training in term of knowledge 2017–2018

Courses	N	Pre-Training		Post-Training		Effect Size Cohen d[a]
		Mean	SD	Mean	SD	
Media Networking	82	3.39	1.368	5.00	1.324	1.19
Public communication	82	3.60	1.098	4.80	1.535	0.89
Leadership	82	3.18	1.398	4.90	1.193	1.32
Self-Image Branding	82	2.87	1.184	5.01	1.160	1.82
Women Rights and Law	82	2.52	.933	4.65	1.391	1.79
Foster team and business	82	2.95	1.236	4.45	1.090	1.28

Note: [a] Cohen d value 0.20 measured small, 0.50 represent moderate, and 0.80 value considered large. Cohen d value revealed the standardized difference of two means.

in all the generalised courses. All the subjects gained more scores after training. However, Media networking and personal brand image got higher scores than other subjects after the training (Mean = 5, 5.01, respectively) than before (Mean 3.39, 2.87 respectively). Public communication and leadership courses also showed significant improvement in knowledge as a pre-training self-assessed rating (M = 3.60, 3.18) increased to (M = 4.80, 4.90 respectively). Women's rights and law, foster team, and business subject least rated courses in the list (Mean = 4.65, 4.45 respectively).

3.2. Qualitative results

In this section, the estimated results discussed after the completion of training. The Focus group method applied for the flexible enquiring and synergetic effect of group discussion. Furthermore, the focus group allows direct interaction between females and researchers to uncover the hidden feelings and in-depth thoughts. Researchers interviewed three focus groups (FG) of women from three universities. Females assessed their self-performance, and the change they found in their personality was analysed. The inductive analysis generated two categorised theories grounded on verbal and documented data. The first identified category through content analysis was the Program category (About course performance), and the second category was Self-awareness (how the training program changed or improved their capacities at personal and social levels). For the self-awareness category, the Kirkpatrick model used (Reaction, learning, behavioural outcomes, and results) for evaluation. Kirkpatrick's model provides a systematic framework for the assessment of the training program. This model concentrated on four levels of training results: Reaction of the female students about overall training program and satisfaction, learning in terms of knowledge and skills, behavioural changes, and inclusive results, which showed the impact of training on female students. The feedback of female students, according to Kirkpatrick's model, is summarised in Table 7.

Table 7. Respondent feedback in term of Kirkpatrick's model

Kirkpatrick's model	Focus Group 1	Focus Group 2	Focus Group 3
Reaction	1. Environment, course content speakers, and professionals from the real business world were quite motivational in the training program (FG1). 2. The diversity of mentors, professionals, and instructors inspired and encourage us to develop our skills and enhance knowledge (FG1).	1. Interactive, diverse environments, learning approaches, and trainers were quite inspiring (FG2). 2. Recruitment, the Registration process was very convenient. Institute infrastructure food quality and services were up to standards (FG2). 3. Classroom facilities, multimedia technology, and sitting arrangements made the whole ambience inductive for learning (FG2).	1. Interaction with different females from diverse backgrounds was stimulating (FG3). 2. The environment was interactive and full of learning (FG3). 3. Many managers and dedicated practitioners from different fields act as catalysts of change to motivate us and develop a personality to change all stereotypes (FG3).
Learning	1. Each course's learning content, objectives, and material provided in the learning module were effective (FG1). 2. Now, we had more business knowledge about personal brand image, verbal communication, and more skills to deal with people (FG1). 3. On personal level, I learned more about technology and professional tools, for example, how to write a professional assignment on how to work on them, how to develop presentations and use technology (FG1).	1. I learned Leadership theories that help us analyse which approaches best suit developing leadership styles, e.g., such as trait, behavioural, situational, and transformational or authoritarian types (FG2). 2. I discovered my style of leadership and competencies (FG2). 3. Now, I have more information about our legal rights (FG2).	1. This program has opened my eyes to rights and law, which gave women equal privileges in society. 2. The training program has provided me with the business knowledge and skills to disrupt the stat quo and work to break the glass ceiling concept (FG3). 3. The training program has provided us with the business knowledge and skills to disrupt the stat quo and break the glass ceiling concept (FG3).
Behaviour	1. I agreed that this program sought to help me determine their professional esteems and focus on life's goal achievement (FG1). 2. The program facilitated me on how to control emotions and react to work-life situations, particularly (FG1). 3. There were many things about work-family conflict and how to create a balance between them (FG1). 4. The program gave me business knowledge by discussing real-life business examples (FG1).	1. This program facilitated me to be aware of emotions and to discriminate between emotions of others and use business knowledge to control the thinking process, emotional behaviour of oneself and others in decision making(FG2). 2. I re-evaluated my behavioural options to become committed to transforming my personality(FG2).	1. Training program gave me the strength to work against the discriminatory institutional and structural impediments(FG3). 2. The program has empowered me and served to enhance my level of self-esteem (FG 3). 3. This training program helped me develop self-trust, esteem, intrinsic motivation, and a strong determination to change my life (FG 3).
Outcome	1. I agree that the major hurdle females face exists deep down inside our heads; our inclination to misjudge our aptitude, worries of risk and uncertainties. The training program helps me to scale all these hurdles, which not an easy task was (FG1).	1. The training success factor was to know women's rights and motivate me to fight in the future against social inequality prevailing in society (FG2).	1. This program served me personally and made me know about the merits and demerits of work-life (FG 3). 2. I got the confidence and self-esteem to change the gender label "male as a leader".

Overall, women who participated revealed that the training program had a very substantial impact on their lives. All the Leadership training and development program's female participants shared that they had gained knowledge, learned many tactics to deal with people, learned verbal communication patterns, and polished many future competencies.

One of the shreds of evidence is that they would spread positive words of mouth to encourage other young girls about the program and its effectiveness. All the women showed a high level of intrinsic motivation to remove gender labels, enhance self-esteem and business knowledge to deal with future monetary challenges. They mostly gave weightage to the following:

– Their opinion showed that they valued the opportunity to meet with the leaders and aspirants of different fields; to know the real-life problems and challenges, which were not usually discussed before. Furthermore, they got aware of the inevitable challenges they might face in a professional career.
– All women valued the practical knowledge given to them, especially knowledge about useful tools that help them deal with daily life situations and work-life challenges.
– They highly appreciate the course content and materials provided to them.
– All the females get aware of the type of leadership they have and, they focused on the aspects which needed most to develop or enhance their traits to nurture leadership personality.
– The program helped them to know better about themselves relative to their employment field and family-work life balance.

Active participation in various activities performed during the training session made female students more empowered. Some women expressed that they got inspiration from other professional women, which urge them to demand their work rights at their current job. From real administrators' experiences, every task or activity performed led toward a situation where women become asked to handle it with skill. Besides, the confidence they gained commenced from the selection process, and it encourages them a lot that they got selected from a large pool of candidates. All the women got a long term perspective to motivate themselves. Even though participants may not immediately apply this training, but in a career, they had a positive frame of mind to cope with every Challenge.

4. Discussion

United Nations Goals for sustainability and development consider education for all countries of the world. They were especially emphasising women's business education and equitable rights in developing and underdeveloped countries. In this scenario, business education and leadership training play a vital role in removing gender labels, mainly helping women get equitable employment opportunities and access to managerial positions. The research literature has previously described women's incompetence, lack of education, training, skills, abilities, and self-trust to become leaders. Literature also emphasised the barriers for women to excel in the workplace and gain authoritarian positions. The present research study analyses women's participation, and subjectively assessed women's leadership training programs' outcomes.

The study dealt with the design of leadership and business courses, the content of classes, women's participation, mentors and managers' experiences, and evaluation of the program and its success. The female participants who attended the leadership training program gave a

strongly positive assessment in a quantitative study. Women showed their appreciation for the training environment and approach used. The training program helped them in personal development. They positively rate the theoretical courses after the training. However, they were satisfied with the Self-Brand image, Media Networking, leadership, and public communication courses to enhance their knowledge. Many women indicate their previous unawareness about these subjects before training assessment and specify that they had learned theories and tools that provided them with a new sense of gaining capabilities and empowerment.

Thus, this training program might have changed the negative societal concepts and tried to break the glass ceiling concept, which the literature highlighted many times. Lack of leadership skills reduced by providing leadership training (teamwork, collaboration, decision-making, interpersonal communication, networking, self-branding, motivation) and tools to make them active entities in society's social and political structure. The training organiser's particular stressed involving female participants from diverse fields and backgrounds. As literature highlighted the specific involvement of engineering students, agricultural students have the least possibilities of getting authoritarian positions in information technology, the economic, and public sectors. An in-depth interview of the focus group revealed the changes in the participant's skills, capabilities, and self-trust. The exploratory study has exposed that women have low self-esteem, no focused ambition for the future, unawares with the leadership competency they possessed, self-inflicted barriers, and low perceptions of their minds as well developed by society.

Kirkpatrick's model feedback showed that the training program positively impacted females' skills, knowledge, and behaviour in a qualitative study. The program inspired them to believe in themselves, change their attitude, and gave them new windows of opportunity. A program inspired them to show courage at the workplace, raise voices against gender inequality, and demand equal labour rights. More importantly, women said that the program was helpful to showcase their skills in real-life situations as a conflict handler and the challenges they might face in future business activities. In the tight socio-economic structure of Pakistan, women must scale higher in their ambitions and business career. Other than external hurdles, women expressed that the biggest hurdle existed in their minds before training: fear of failure. This training program helps them embrace change within themselves, broaden their horizon, and challenge the societal norms and status quo.

The participants who have attended the program indicate that training has unleashed their talent for leadership. The qualitative results showed that women started thinking big and promised to stop playing safe. The outcomes revealed that leadership training and business knowledge have a tremendous impact on students' personalities and could help women advocate themselves. Finally, the Training program fulfils the requirements of a good training program on an aggregated basis. Women who participated recognised that their level of aptitude, skills, and acquaintance has improved.

Conclusions

Leadership training and education are still in the embryonic stage in Pakistan. The present study is mainly carried out to evaluate the business education and leadership training program at the higher institutional level. The qualitative and quantitative results of the

study exhibited that training has well received. Training program showed the effectiveness of education and skills for women to improve the self-perception. Furthermore, taking the participants' suggestions and opinions showed that the program's organisers and applicants achieved their intended leadership training purpose. This program's outcomes indicated the effectiveness of course activities, coaching, interactive sessions, and the program's real-life experiences.

Finally, women's education, especially business education, empowerment, and gender equity, are the universal issues prevailing in every society and culture of the world. The current research study tried to highlight the significance of females' knowledge to develop their skills, competencies, tools, and leadership abilities to gain self-identity. A robust and dedicated effort to organise leadership development programs is the need for time for Pakistani society. This commitment of higher education commission, NGO's, and the government will help to break down the critical situation of employment barriers obstacles in procurement. Higher academic and training institutions facilitate education, design leadership courses and programs to build an equitable gender legacy, a strong business, and a sustainable economy for future endeavours. Women's leadership is still an embryonic stage in Pakistan. The finding shows that leadership training programs will significantly contribute to women's empowerment and lift social and cultural barriers. Research work supported women's education and leadership for the economic growth of the country. The current situation about leadership, education, and women empowerment may be bleak, but higher education commission initiatives from the last few decades will speed up women's awareness. The present study emphasised the relevance of leadership education for women to build their confidence, strengthen their tools and capabilities for breaking the stereotyping in the Pakistani business world and society. Higher academic institutions are better places to expedite women's leadership education, equal rights, and create an opportunistic legacy for future endeavours.

Limitations and future recommendations

Despite all, several limitations have been identified that open the paths and gave a new perspective for future research. First, it might be possible that the generalizability and social desire could have influenced participants' responses and opinions. However, the analysis of qualitative outcomes showed that this kind of effect was not significant. The current research study may replicate by using another context. Moreover, another training program aims to hold, which will help assess the leadership and business program after two years. Subsequently, the result could corroborate by analysing all the female students' situations and backgrounds after selecting the business and employment industry. After that, an additional research study needs to conduct to evaluate the real effect. Whether women are more productive, decisive, and efficient in their workplaces, such a study explores whether participants have altered their philosophies or shifted in behaviour. For evaluating the real effectiveness of training, a survey study needs to conduct.

Furthermore, a comparative analysis needs to conduct the selection process of participants in the training program. In the future, researchers could repeat this research study with a larger sample size by applying a longitudinal method, as the current study dealt with small

sample data. Besides this, the male-only program needs to design to create awareness about gender equality in society. This women leadership program could create an opportunity to expand this plan on men to observe whether women empowerment happens similarly, as they are working and training alone. Another form of qualitative research, "Autoethnography", could be applied for development in future training programs and improvement in the research's results to explore the applicant's anecdotal and individual experience.

Author contributions

Paper conceptualized by SK and WG. SK were responsible for the introduction, study design. AS were responsible for Research background. SK, AUR, and BK were responsible for data collection and discussions. SK and AS performed data analysis and interpretation. BK and SK wrote the first draft of the article. WG and AUR were responsible for Critical review and editing.

Disclosure statement

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