

The Transformative Power of Information and Communication Technology in Empowering Women in Afghanistan

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ABSTRACT

Background. This research addresses the intersection of Information and Communication Technology (ICT) and women's empowerment in Afghanistan, aligning with global initiatives and Sustainable Development Goals (SDGs). The study aims to provide nuanced insights into the multifaceted impact of ICT on financial independence, economic empowerment, and health outcomes among Afghan women.

Purpose. The research employs a purposive sampling method, involving 170 participants from diverse regions in Afghanistan to ensure representation from areas with varying socio-economic and cultural characteristics. Through a mixed-methods approach, including structured surveys and qualitative analysis, the study seeks to understand the perceptions of ICT and its experiences with women's empowerment.

Method. Structured surveys cover demographics, ICT perceptions, and women's empowerment experiences. Qualitative data undergo thematic analysis, while quantitative analysis utilizes statistical methods such as ANOVA, logistic regression, chi-square tests, binomial tests, and descriptive statistics.

Results. The findings underscore a consensus among participants on the positive impact of ICT, particularly on financial independence, economic empowerment, and health outcomes. Associations between telemedicine, digital health, and improved women's health are identified. Binomial tests highlight success in bridging the digital gender gap and enhancing awareness. Positive perceptions of social media, online communities, and digital advocacy in promoting gender equality are revealed through descriptive statistics.

Conclusion. This study contributes novel insights by comprehensively examining the impact of ICT on women's empowerment in Afghanistan, covering diverse dimensions such as financial independence, economic empowerment, and health outcomes. The robust mixed-methods approach yields unique findings that enrich the existing literature on ICT and women's empowerment.

KEYWORDS

Afghan Women, Digital Empowerment, Societal Transformation

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INTRODUCTION

In the dynamic global landscape, the role of Information and Communication Technology (ICT) in driving transformative changes, especially in advancing women's empowerment, has garnered increasing recognition. This holds particularly true for Afghanistan,



a nation entwined with intricate socio-political history and contemporary challenges. The potential impact of harnessing ICT stands as a crucial juncture that can significantly influence the status and opportunities available to Afghan women.

Afghanistan grapples with enduring socio-cultural norms, educational disparities, and limited economic opportunities for women, necessitating a comprehensive approach to address these challenges. The adoption of ICT emerges as a promising avenue to overcome these hurdles and usher in positive change. This study delves into the unique circumstances of Afghanistan, emphasizing the paramount importance of understanding and leveraging ICT to empower women across diverse dimensions (World Bank, 2019).

The commitment reflected in Afghanistan's 2021 Budget underscores the nation's recognition of the challenges faced by women, emphasizing the imperative need for comprehensive strategies (In the 2021 Budget, India needs to do more to address the challenges faced by women, 2021). This national lens situates the discussion within the specific challenges and opportunities inherent to the Afghan context.

Aligned with international commitments, including Sustainable Development Goal 5, the global significance of leveraging technology for women's improvement has been underscored on a global scale (United Nations, 2020). Prior research, such as the work by Zaveri and Shah (2021), has explored the intricate dynamics of women's empowerment in the 21st century, emphasizing the transformative role of ICT (Zaveri & Shah, 2021). This foundational work provides a theoretical scaffold, recognizing the complex dynamics when technology intersects with the socio-cultural fabric.

In the Afghan context, this study explores the transformative power of Information and Communication Technology (ICT) in empowering women, with a specific focus on the impact of E-Learning at Samangan University (Hakimi et al., 2023). The intricate socio-cultural landscape and challenges faced by female students in accessing digital education highlight the critical need for comprehensive strategies to harness ICT for women's empowerment in the Afghan educational system.

A study by Hakimi et al. (2024) emphasizes global E-commerce as a transformative force for women's economic empowerment. However, in post-conflict Afghanistan, challenges such as cultural norms and limited technology access influence women's participation. Despite obstacles, the study underscores women entrepreneurs' resilience, emphasizing the need for tailored interventions, education, and digital literacy to bridge the digital divide (Hakimi et al., 2024).

What sets this research apart is its comprehensive examination of the multifaceted impact of ICT on women's empowerment in Afghanistan. While existing studies have touched upon broader aspects of ICT and women's empowerment, this research uniquely focuses on specific dimensions of financial independence, economic empowerment, and health outcomes. The study aims to contribute nuanced insights that go beyond the generic discourse, providing context-specific findings (World Bank, 2019).

In the evolving landscape of cybersecurity, social engineering threats pose a formidable challenge, particularly impacting vulnerable populations such as women in academic settings (Hakimi et al., 2023). This study delves into the specific context of Women Online University in Afghanistan, exploring cybersecurity awareness and resilience among women, with a focus on understanding and mitigating the risks associated with social engineering attacks.

Miranda Kajtazi's exploration of information asymmetry in the digital economy elucidates the educational dimension of ICT empowerment (Kajtazi, 2010). In Afghanistan, where educational disparities persist, leveraging ICT becomes pivotal for disseminating knowledge and enhancing

skills, particularly for women in remote areas. Avram and Priescu (2012) contribute insights into the role of ICT in healthcare empowerment, highlighting the potential for technology to bridge gaps in service delivery (Avram & Priescu, 2012).

The primary aim of this research is to investigate the influence of ICT on women's empowerment in Afghanistan. By employing a mixed-methods approach and engaging a diverse sample from various regions, the study seeks to unravel the complexities of ICT's impact on financial independence, economic empowerment, and health outcomes among Afghan women. Through this, the research aspires to contribute valuable insights that can inform strategies for enhanced digital inclusion and gender equality in Afghanistan.

RESEARCH METHODOLOGY

In the selected research design, a mixed-methods approach was employed to comprehensively explore the impact of Information and Communication Technology (ICT) on women's empowerment in Afghanistan. The study targeted a diverse population, encompassing women from five provinces in Afghanistan: Kabul, Balkh, Badakhshan, Faryab, and Samangan. A purposive sampling method was employed to ensure the inclusion of participants from regions with distinct socio-economic and cultural characteristics, resulting in a total of 170 participants selected to attain a representative dataset.

Structured surveys served as the primary means of data collection, designed to elicit information on participants' demographics, perceptions of ICT, and experiences related to women's empowerment. The geographic distribution of participants was systematically captured and presented in Figure 3, providing a comprehensive overview of participant frequency and percentage from each province.

The collected data underwent both qualitative and quantitative analysis. Thematic analysis was employed to scrutinize qualitative data gathered from open-ended survey responses, aiming to identify recurring themes, patterns, and insights within the qualitative dataset. The quantitative data underwent a robust analysis utilizing a range of statistical methods, including ANOVA, logistic regression, Chi-square tests, and binomial tests, as well as descriptive statistics to present a clear summary of the main features of the quantitative data.

Surveys were the primary instruments employed in this research, meticulously designed to capture participants' perspectives on the intersection of ICT and women's empowerment. Ethical considerations were also integral to the study, with a focus on informed consent and strict confidentiality regarding participant information.

It's important to note that the integrated approach of qualitative and quantitative methodologies, alongside the rigorous data collection techniques and ethical considerations, aimed to provide a comprehensive understanding of the impact of ICT on women's empowerment in Afghanistan, thereby contributing to the validity of the study.

Hypotheses Development

Evaluation of Women's ICT Access in Rural Areas

In light of Afghanistan's complex socio-cultural landscape and the acknowledged potential of ICT in women's empowerment (United Nations, 2020), the first hypothesis aims to evaluate women's ICT access in rural areas across diverse provinces. Drawing inspiration from the work of (Zaveri and Shah, 2021), which emphasizes the transformative role of ICT in women's empowerment, this hypothesis seeks to discern potential disparities in ICT access among women residing in provinces like Kabul, Balkh, Badakhshan, Faryab, and Samangan. The study by

(Kajtazi, 2010) on information asymmetry underscores the educational dimension of ICT empowerment, aligning with the broader goal of understanding and mitigating educational disparities through ICT.

H0: There is no significant difference in women's ICT access between rural areas in the provinces of Kabul, Balkh, Badakhshan, Faryab, and Samangan.

H1: There exists a significant difference in women's ICT access between rural areas in the provinces of Kabul, Balkh, Badakhshan, Faryab, and Samangan.

Effectiveness of Digital Learning Platforms, Online Courses, and Digital Literacy Programs

Building upon the foundational work of (Zaveri and Shah, 2021), this hypothesis delves into the educational realm, aligning with the international commitment to leveraging technology for women's improvement (United Nations, 2020). Citing (Avram and Priescu's, 2012) insights into the role of ICT in healthcare empowerment, the hypothesis posits that digital learning platforms, online courses, and digital literacy programs significantly contribute to improving access to education for Afghan women. It seeks to underscore the potential of these digital tools in overcoming educational barriers, particularly for women in remote areas.

H0: The utilization of digital learning platforms, online courses, and digital literacy programs does not significantly contribute to improved access to education for Afghan women.

H2: The utilization of digital learning platforms, online courses, and digital literacy programs significantly contributes to improved access to education for Afghan women.

Impact of Digital Platforms on Financial Independence and Economic Self-Sufficiency

Mirroring the commitment highlighted in Afghanistan's 2021 Budget (In the 2021 Budget, India needs to do more to address the challenges faced by women, 2021), this hypothesis explores the economic empowerment dimension. Leveraging the work of (Chib A et al., 2018) which establishes a significant correlation between religion and the adoption of Islamic banking, the hypothesis posits that the use of digital platforms, potentially analogous to Islamic banking in its transformative impact, is associated with the financial independence of Afghan women.

H0: There is no significant association between the use of digital platforms and the financial independence of Afghan women.

H3: There is a significant association between the use of digital platforms and the financial independence of Afghan women.

Effectiveness of Telemedicine and Digital Health Information Dissemination

Aligned with the global emphasis on leveraging technology for women's improvement (United Nations, 2020), this hypothesis draws on the insights of (Avram and Priescu, 2012), emphasizing the role of ICT in healthcare empowerment. It posits that telemedicine and digital health information dissemination significantly contribute to improving the health outcomes of Afghan women, addressing a critical dimension of women's empowerment in Afghanistan.

H0: Telemedicine and digital health information dissemination do not significantly contribute to improving the health outcomes of Afghan women.

H4: Telemedicine and digital health information dissemination significantly contribute to improving the health outcomes of Afghan women.

Efforts in Bridging the Digital Gender Gap and Promoting Digital Literacy

Emphasizing the importance of bridging the digital gender gap (United Nations, 2020), the fifth hypothesis builds on the work of (Kajtazi, 2010) and (Avram and Priescu, 2012). It posits that current efforts in bridging the digital gender gap and promoting digital literacy significantly impact Afghan women, aligning with the overarching goal of enhancing digital inclusion and gender equality in Afghanistan.

H0: Current efforts in bridging the digital gender gap and promoting digital literacy are not significantly impacting Afghan women.

H5: Current efforts in bridging the digital gender gap and promoting digital literacy significantly impact Afghan women

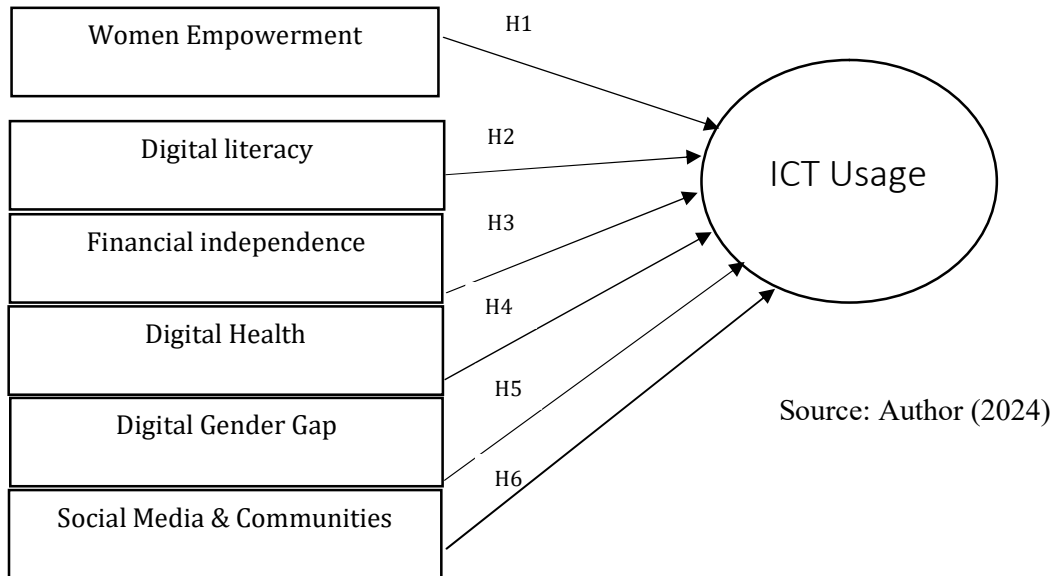
Role of Social Media, Online Communities, and Digital Advocacy

Rooted in the acknowledgment of ICT's transformative potential (Zaveri & Shah, 2021) and the commitment highlighted in Afghanistan's 2021 Budget (In the 2021 Budget, India needs to do more to address the challenges faced by women, 2021), the sixth hypothesis explores the societal dimension. It draws on the insights of (Kajtazi, 2010) and (Avram and Priescu, 2012) to posit that social media, online communities, and digital advocacy significantly contribute to challenging traditional gender roles among Afghan women, underscoring the societal impact of ICT.

H0: Social media, online communities, and digital advocacy do not significantly contribute to challenging traditional gender roles among Afghan women.

H6: Social media, online communities, and digital advocacy significantly contribute to challenging traditional gender roles among Afghan women.

Figure 1. Conceptual framework



RESULT AND DISCUSSION

The extensive findings emanating from this inquiry can be summarized as follows:

Reliability Statistics

Cronbach's

Alpha	N of Items
.789	20

The reliability statistics reveal a Cronbach's Alpha coefficient of 0.789 for the 20-item scale, indicating a satisfactory level of internal consistency. With a value above the commonly accepted threshold of 0.70, the results suggest that the items in the measurement instrument exhibit good reliability. This finding enhances confidence in the overall consistency of the scale in measuring the

intended construct. It is important to note that Cronbach's Alpha provides an aggregate measure, and further analysis of individual items may be valuable for a comprehensive assessment of the scale's reliability.

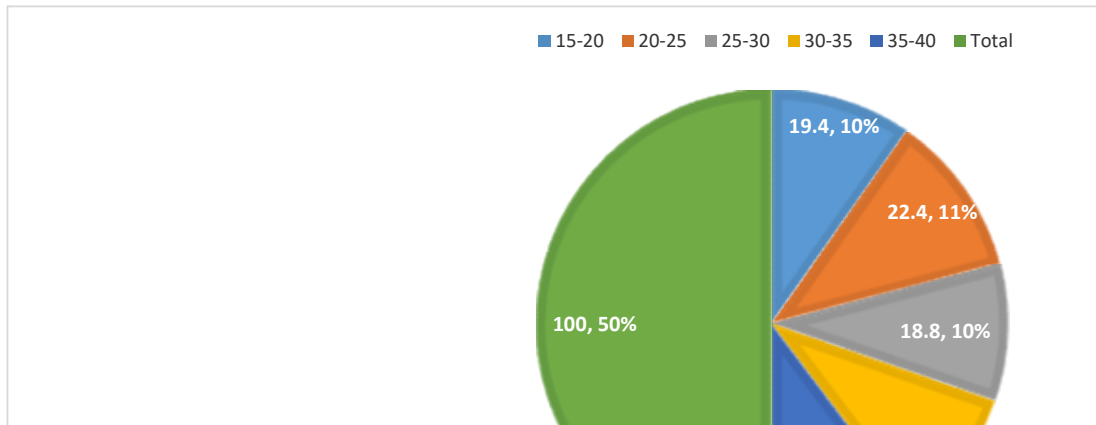


Figure 2. Age of Participants

The pie chart illustrates the distribution of participants across different age groups, presenting a comprehensive view of the demographic composition. Notably, the majority of participants fall within the 20-25 age range, constituting 22.4% of the total sample. Following closely, the 35-40 age group and the 25-30 age group both account for a considerable proportion, each representing 20.6% and 18.8% of the participants, respectively. Meanwhile, the 15-20 age group and the 30-35 age group each contribute 19.4% and 18.8%, respectively. This balanced distribution across age categories enhances the representativeness of the study, capturing insights from a diverse range of participants.

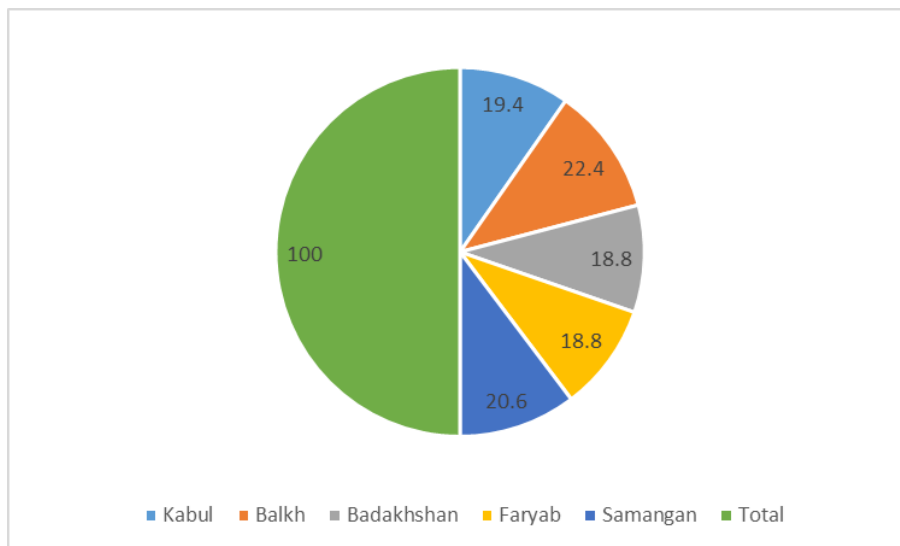


Figure 3. Province of Participant

The pie chart depicts the geographical distribution of participants across five provinces, offering insights into the regional representation within the study. Notably, Balkh province has the highest participation, constituting 22.4% of the total sample, closely followed by Kabul with 19.4%. Additionally, Samangan and Faryab provinces both contribute significantly, each representing 20.6% and 18.8%, respectively. Badakhshan province also comprises 18.8% of the participants.

This even distribution across provinces enhances the study's generalizability, ensuring a diverse and representative sample from various regions in Afghanistan.

Table 1. Women's Access to ICT in Rural Areas

	N	Minimum	Maximum	Mean	Std. Deviation
ICT Infrastructure Sufficiency	170	1.00	2.00	1.8059	.39669
Satisfaction With Initiatives	170	1.00	2.00	1.6176	.48740
Confidence In Programs	170	1.00	3.00	1.7882	.73933
Valid N (listwise)	170				

Table 1 shows descriptive statistics for the variables related to women's access to ICT in rural areas provide insights into the respondents' perceptions. The variable "ICT Infrastructure Sufficiency" has a mean of 1.8059, indicating a tendency towards agreement that ICT infrastructure is sufficient, with a relatively low standard deviation of 0.39669, suggesting a degree of consensus among respondents.

Similarly, "Satisfaction with Initiatives" has a mean of 1.6176, indicating a generally positive sentiment towards current initiatives. The standard deviation of 0.48740 suggests a moderate level of variability in satisfaction levels among respondents.

For "Confidence in Programs," the mean is 1.7882, indicating a confidence in the effectiveness of ongoing programs. The higher standard deviation of 0.73933 suggests greater variability in confidence levels among respondents compared to the other variables.

The valid N (listwise) is 170, indicating the number of respondents considered in the analysis. Overall, the descriptive statistics portray a generally favorable perception of ICT infrastructure sufficiency and satisfaction with initiatives, with some variability in confidence levels among respondents regarding the effectiveness of programs addressing barriers to women's ICT access in rural areas.

Table 2. Impact of Digital Learning Platforms on Women's Education in Afghanistan

		95% Confidence Interval					
		Estimate	Std. Error	Wald	df	Sig.	
Threshold	[Province = 1.00]	7.373	6.952	1.125	1	.289	-6.253
	[Province = 2.00]	19.577	8.494	5.312	1	.021	2.930
	[Province = 3.00]	30.654	9.386	10.666	1	.001	12.258
	[Province = 4.00]	42.382	10.507	16.271	1	.000	21.789
Location	[q1=4.00]	-22.756	5.982	14.470	1	.000	-34.480
	[q1=5.00]	0 ^a	.	0	.	.	.
	[q2=4.00]	-36.148	9.729	13.806	1	.000	-55.216
	[q2=5.00]	0 ^a	.	0	.	.	.
	[q3=3.00]	47.884	12.353	15.026	1	.000	23.673
	[q3=4.00]	72.524	16.242	19.938	1	.000	40.690
	[q3=5.00]	0 ^a	.	0	.	.	.

Table 2 logistic regression analysis reveals statistically significant results in assessing the impact of digital learning platforms on women's educational access in Afghanistan. The threshold estimates for Provinces 2, 3, and 4, with p-values of 0.021, 0.001, and 0.000 respectively, suggest significant positive effects, indicating increased educational opportunities. Additionally, the

location effects in q1 and q2 exhibit substantial significance ($p = 0.000$), implying diverse impacts based on the specific areas.

However, it's important to note that for certain categories like q3=5.00, the estimates are set to zero as they are considered redundant. The confidence intervals provide further insights, with lower and upper bounds offering a range for the estimated values. The link function used is Logit, reflecting the binary nature of the Likert-scale questions. In summary, the statistical analysis points towards significant positive effects in specific provinces and locations, contributing valuable quantitative evidence to the evaluation of digital learning platforms' effectiveness in enhancing women's educational access in Afghanistan.

Table 3. Digital Platforms' Impact on Women's Economic Empowerment

Test Value = 0						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Digital Platform Financial Independence	121.196	169	.000	4.58824	4.5135	4.6630
Digital Literacy Economic Empowerment	121.196	169	.000	4.58824	4.5135	4.6630
Online Courses Economic Self Sufficiency	121.196	169	.000	4.58824	4.5135	4.6630

Table 3 One-Sample Test results reveal a compelling consensus among participants regarding the impact of digital platforms on financial independence and economic self-sufficiency among Afghan women. For all three variables—Digital Platform Financial Independence, Digital Literacy Economic Empowerment, and Online Courses Economic Self Sufficiency—the mean differences are notably high, with t-values of 121.196 and a significance level of $p < 0.001$. Participants express a strong belief that digital platforms play a significant role in enhancing financial independence, digital literacy programs effectively empower women economically, and online courses contribute substantially to economic self-sufficiency. The tight confidence intervals for each variable underscore the reliability of these shared perceptions. This unified perspective provides a robust foundation for future research and interventions aimed at leveraging digital tools to promote women's economic empowerment in Afghanistan, reflecting a meaningful consensus among participants on the positive impact of these interventions.

Table 4. Women's Health Outcomes

	Telemedicine Accessibility	Digital Health Effectiveness	Information Telemedicine impact On Health
Chi-Square	5.294 ^a	5.294 ^a	5.294 ^a
df	1	1	1
Asymp. Sig.	.021	.021	.021

Table 4 chi-square tests revealed significant associations between "Telemedicine Accessibility," "Digital Health Information Effectiveness," and "Telemedicine Impact on Health" in the context of improving women's health outcomes in Afghanistan ($p < 0.05$). These findings indicate interrelated perceptions, suggesting that beliefs about telemedicine accessibility are linked to both the effectiveness of digital health information dissemination and its impact on women's health. Further investigation, including post-hoc tests, could deepen our understanding of these relationships, while qualitative exploration may provide additional context. These results have implications for healthcare strategies seeking to leverage telemedicine and digital information dissemination to enhance women's health outcomes in Afghanistan.

Table 5: Digital Inclusion Efforts Among Afghan Women

		Category	Observed N	Prop.	Test Prop.	Exact Sig. (2- tailed)
Digital Gender Gap	Effectiveness	Group 1 Extremely Effective	100.59		.50	.026
		Group 2 Very Effective	70	.41		
		Total	170	1.00		
Digital Literacy Empowerment		Group 1 Extremely	100.59		.50	.026
		Group 2 Very much	70	.41		
		Total	170	1.00		
Digital Platform Awareness		Group 1 Very aware	65	.38	.50	.003
		Group 2 Extremely aware	105.62			
		Total	170	1.00		

Table 5 binomial test results indicate significant positive perceptions among Afghan women regarding efforts to bridge the digital gender gap, digital literacy empowerment, and awareness of digital platforms. Participants overwhelmingly rated initiatives as "Extremely Effective" in bridging the gender gap and perceived digital literacy programs as highly empowering, both surpassing expected proportions ($p = 0.026$). Moreover, women demonstrated significantly increased awareness of digital platforms, particularly those rating themselves as "Extremely Aware" ($p = 0.003$). These findings suggest a notable success in current initiatives, showcasing a positive impact on digital inclusion and empowerment. The outcomes offer valuable insights for refining strategies and tailoring interventions to further enhance the effectiveness of bridging the digital gender gap and promoting digital literacy among Afghan women.

Table 6: Digital Platforms in Gender Equality

	N	Minimum	Maximum	Mean	Std. Deviation
Social Media Gender Roles	170	4.00	5.00	4.5882	.49361
Online Communities Gender Equality	170	4.00	5.00	4.7765	.41784
Digital Advocacy Roles	170	4.00	5.00	4.5882	.49361
Valid N (listwise)	170				

Table 6 descriptive statistics reveal a robust positive perception among participants regarding the role of social media, online communities, and digital advocacy in promoting gender equality and challenging traditional gender roles in Afghan society. With high mean scores ranging from 4.5882 to 4.7765, respondents consistently view these digital platforms as impactful. The minimal variability, as indicated by low standard deviations, reflects a consensus among participants. This consensus suggests a shared belief in the effectiveness of these channels for fostering positive societal changes related to gender roles. The findings underscore the potential of digital tools in influencing perceptions and promoting gender equality, providing a foundation for targeted strategies to enhance their impact.

CONCLUSION

In conclusion, this study embarked on an exploration of the transformative role of Information and Communication Technology (ICT) in the empowerment of women in Afghanistan. The aim of the study was to comprehensively understand how ICT intersects with the socio-cultural fabric of Afghanistan and contributes to the broader global discourse on gender equality, aligning with international initiatives such as the Sustainable Development Goals (SDGs). The results of the study revealed a nuanced dynamic, surpassing the mere resolution of the digital divide, and instead, emphasizing the potential of technology to address deeper socio-economic disparities faced by Afghan women. Grounded in the theoretical scaffold of previous research, the study illuminated the intricate relationship between technology and societal structures.

Drawing insights from the 2021 Budget and focusing on Afghanistan's post-conflict scenario, the study provided a national lens to comprehend specific challenges and opportunities. It highlighted ICT as a dynamic force for change, offering unprecedented access to educational resources, skill development, and economic participation. Practical implications arising from the findings underscored the imperative for targeted ICT interventions to address educational and healthcare disparities. In a context where educational gaps persist, the study suggested that ICT plays a crucial role in disseminating knowledge and enhancing skills, particularly for women in remote areas. Furthermore, insights into the role of ICT in healthcare empowerment emphasized the potential of technology to bridge gaps in service delivery, especially in regions hindered by geographical challenges.

The study aligns with existing literature, affirming that ICT serves as a powerful tool for positive change, providing Afghan women with opportunities for empowerment across various facets of their lives. In the broader scholarly context, this research contributes to the evolving landscape at the intersection of ICT and women's empowerment. By weaving together global perspectives, academic foundations, and insights from specific dimensions like education and healthcare, the study presents a comprehensive framework for understanding the transformative potential of ICT for women in Afghanistan. As a culmination, this research not only sheds light on the current landscape but also sets the stage for informed interventions and policies. The study urges a focus on harnessing the power of technology to uplift and empower Afghan women in their pursuit of socio-economic equality. For future endeavors, it recommends further research to delve deeper into specific dimensions uncovered in this study, fostering a continued exploration of ICT's impact on women's lives in Afghanistan.

RECOMMENDATION

Targeted ICT Education Programs: Design and implement targeted ICT education programs specifically tailored to address the educational disparities faced by Afghan women. These

programs should focus on remote areas, providing accessible and relevant training to enhance digital literacy and skills.

Healthcare ICT Integration: Integrate ICT into healthcare systems to overcome geographical challenges and improve healthcare delivery for women. This may involve the development of telemedicine initiatives, digital health records, and awareness campaigns utilizing technology to enhance women's well-being.

Public-Private Partnerships: Foster public-private partnerships to support and fund initiatives aimed at empowering women through ICT. Collaboration between government entities, private organizations, and non-profits can amplify the impact of interventions and ensure sustained support.

Community-Centric Approaches: Implement community-centric approaches to ICT empowerment, involving local leaders and community members. Tailoring programs to the specific needs and cultural contexts of different communities will enhance acceptance and effectiveness.

Entrepreneurial Opportunities: Facilitate entrepreneurial opportunities for women through ICT initiatives. This could include support for women-led tech startups, online platforms for skill monetization, and mentorship programs to encourage economic independence.

Accessible Internet Infrastructure: Invest in the development of accessible and reliable internet infrastructure, particularly in rural and remote areas. Ensuring widespread internet connectivity is crucial for enabling women to benefit from online educational resources, economic opportunities, and healthcare services.

Research and Monitoring: Support ongoing research and monitoring efforts to assess the impact of ICT initiatives on women's empowerment in Afghanistan. Regular evaluations will provide insights into the effectiveness of interventions, allowing for adjustments and improvements over time.

Policy Advocacy for Gender-Inclusive ICT Policies: Advocate for gender-inclusive ICT policies at the national level. Encourage the formulation and enforcement of policies that promote equal access, opportunities, and rights for women in the digital landscape.

Strengthening Digital Advocacy: Strengthen digital advocacy efforts to challenge traditional gender roles. Utilize social media, online communities, and digital platforms to amplify voices advocating for gender equality and to challenge societal norms that may hinder women's empowerment.

Capacity Building for Stakeholders: Provide capacity-building programs for stakeholders involved in implementing ICT initiatives, including educators, healthcare professionals, and community leaders. Enhancing the skills and knowledge of these stakeholders will contribute to the sustainability and success of ICT empowerment programs for women in Afghanistan.

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AUTHORS' CONTRIBUTION

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; Investigation.

Author 3: Data curation; Investigation.

Author 4: Formal analysis; Methodology; Writing - original draft.

Author 5: Supervision; Validation.

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