

Challenges and Opportunities for Afghan Women in the Digital World in Afghanistan

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ABSTRACT

This study explores the challenges and opportunities for Afghan women in the digital world, focusing on the role of digital technologies in advancing education, entrepreneurship, and social inclusion. Using a quantitative research design, data were collected through a structured survey administered to 150 women aged 20-25 from an online university, representing diverse academic faculties. The survey utilized a 5-point Likert scale to measure participants' perceptions of digital technologies' effectiveness, cultural barriers, and infrastructural challenges. Results indicate that while digital tools such as e-learning and e-commerce have significant potential to empower Afghan women, their impact is limited by infrastructural gaps, cultural norms, and low digital literacy. The findings highlight the need for targeted interventions to improve internet access, promote digital literacy, and address societal barriers. This study contributes to the growing body of research on gender equality and digital inclusion, offering actionable insights for policymakers and stakeholders working to empower Afghan women through technology.

INTRODUCTION

The digital world presents both challenges and opportunities for Afghan women, particularly in a context marked by socio-political instability and cultural constraints. Over the past two decades, the internet and digital technologies have emerged as powerful tools for advancing gender equality and empowering women in Afghanistan. However, the persistent gender digital divide, limited access to technology, and societal barriers continue to hinder the full participation of Afghan women in the digital sphere. This paper explores the multifaceted role of digital technologies in empowering Afghan women, focusing on their potential to foster education, economic participation, and social inclusion, while also addressing the challenges that impede their digital engagement.

The internet has become a critical enabler for Afghan women, offering opportunities for education, entrepreneurship, and civic engagement. For instance, e-learning platforms have provided women with access to educational resources, particularly in regions where traditional educational institutions are inaccessible or culturally restrictive (Hakimi et al., 2024; Sofizada, 2022). Similarly, e-commerce has emerged as a viable avenue for economic empowerment, enabling women to establish online businesses and participate in the digital economy (Ghiyasi et al., 2024; Hakimi et al., 2024). These advancements highlight the transformative potential of digital technologies in addressing gender disparities and fostering women's empowerment in Afghanistan.

Despite these opportunities, significant challenges remain. The gender digital divide is exacerbated by limited internet access, low digital literacy, and cultural norms that restrict women's use of technology (Nazari & Musilek, 2023; Jauhiainen et al., 2022). Additionally, the lack of supportive policies and infrastructure further constrains women's ability to leverage digital tools effectively (Hakimi et al., 2024; Quraishi et al., 2024). Addressing these barriers requires a multifaceted approach, including targeted interventions to enhance digital literacy, expand internet access, and challenge societal norms that limit women's participation in the digital world.

This paper draws on recent research to examine the dual role of digital technologies as both a tool for empowerment and a source of inequality for Afghan women. By analyzing the challenges and opportunities associated with women's digital engagement, this study aims to contribute to the ongoing discourse on gender equality and digital inclusion in Afghanistan. The findings underscore the need for collaborative efforts among policymakers, educators, and civil society to create an enabling environment that supports Afghan women's full participation in the digital world.

Research Objectives (RO)

- **RO1:** To examine the role of digital technologies in advancing gender equality and empowering Afghan women in education, entrepreneurship, and social inclusion.

- **RO2:** To identify the key challenges, including cultural, infrastructural, and policy-related barriers, that hinder Afghan women's participation in the digital world.
- **RO3:** To explore the potential of e-commerce and e-learning as tools for economic and educational empowerment of Afghan women.

Research Questions (RQ)

- **RQ1:** How do digital technologies contribute to advancing gender equality and empowering Afghan women in education, entrepreneurship, and social inclusion?
- **RQ2:** What are the primary challenges, including cultural, infrastructural, and policy-related barriers, that limit Afghan women's engagement in the digital world?
- **RQ3:** What is the potential of e-commerce and e-learning in fostering economic and educational empowerment among Afghan women?

Problem Statement

Afghan women face significant barriers to participating in the digital world, including limited access to technology, cultural restrictions, and low digital literacy. Despite the potential of digital tools like e-learning and e-commerce to empower women through education and economic opportunities, these benefits remain inaccessible to many due to infrastructural gaps and societal norms. The lack of inclusive policies and supportive infrastructure further exacerbates the gender digital divide, leaving Afghan women disproportionately excluded from the digital revolution. This study seeks to explore the challenges and opportunities for Afghan women in the digital world, aiming to identify strategies to enhance their digital participation and empowerment, thereby contributing to gender equality and socio-economic development in Afghanistan.

LITERATURE REVIEW

The digital world has emerged as a transformative force for Afghan women, offering opportunities for education, economic participation, and social inclusion. However, the gender digital divide remains a significant barrier, limiting women's access to and use of digital technologies. Research highlights that internet access and digital literacy are critical enablers for women's empowerment, particularly in developing countries like Afghanistan (Afif et al., 2024; Ahmed et al., 2022). For instance, e-learning platforms have provided Afghan women with access to educational resources, especially in regions where traditional educational institutions are inaccessible due to cultural or security constraints (Hakimi et al., 2024; Sofizada, 2022). These platforms have not only expanded educational opportunities but also enabled women to acquire skills necessary for economic participation.

E-commerce has also emerged as a powerful tool for women's economic empowerment in Afghanistan. Studies indicate that online businesses allow women to overcome traditional barriers to entrepreneurship, such as limited mobility and societal restrictions (Ghiyasi et al., 2024; Hakimi et al., 2024). By

leveraging digital platforms, Afghan women can establish businesses, access broader markets, and achieve financial independence. However, the success of e-commerce initiatives depends on addressing infrastructural challenges, such as limited internet connectivity and digital payment systems, as well as cultural norms that discourage women's economic activities (Ahmed et al., 2022; Nazari & Musilek, 2023).

Despite these opportunities, Afghan women face significant challenges in accessing and utilizing digital technologies. The gender digital divide is exacerbated by low literacy rates, limited digital skills, and societal norms that restrict women's use of technology (Jauhiainen et al., 2022; Nazari & Musilek, 2023). Additionally, the lack of supportive policies and infrastructure further constrains women's ability to engage in the digital world (Hakimi et al., 2024; Quraishi et al., 2024). For example, while mobile learning technologies have the potential to revolutionize education in Afghanistan, their implementation is hindered by inadequate technological infrastructure and resistance from traditional educational systems (Quraishi et al., 2024).

Cultural barriers also play a significant role in limiting women's digital participation. In many cases, societal norms discourage women from using the internet or engaging in online activities, fearing that it may challenge traditional gender roles (Akrami et al., 2023; Putnam, 2021). Addressing these barriers requires targeted interventions, such as digital literacy programs, awareness campaigns, and policies that promote gender equality in the digital sphere (Hakimi et al., 2024; Sofizada, 2022).

METHODOLOGY

This study employed a quantitative research design to explore the challenges and opportunities for Afghan women in the digital world. The methodology was structured to ensure systematic data collection and analysis, focusing on the role of digital technologies in education, entrepreneurship, and social inclusion.

Research Design: A **descriptive survey-based design** was used to collect data on participants' perceptions and experiences with digital technologies. The study aimed to quantify the extent to which digital tools empower Afghan women and identify barriers to their digital participation.

Population and Sampling: The target population consisted of **150 women** aged 20-25 from an online university, representing four faculties: Computer Science (50), Education (50), Economics (30), and Medical (20). A **purposive sampling technique** was used to ensure diverse representation across academic disciplines.

Data Collection: A structured survey with 5-point Likert scale questions was administered to measure participants' perceptions of digital technologies' effectiveness, challenges, and opportunities. The survey included questions on e-learning, e-commerce, cultural barriers, and infrastructural challenges.

Data Analysis

Descriptive Statistics: Survey responses were analyzed using frequencies and percentages to identify trends and patterns.

Ethical Considerations: Informed consent was obtained from all participants, and their anonymity and confidentiality were ensured. The study adhered to ethical guidelines for research involving human subjects.

RESEARCH RESULT

This section presents the findings of the study, organized into key themes based on the research objectives. The results are derived from the analysis of survey responses and provide insights into the role of digital technologies in empowering Afghan women, as well as the challenges they face in the digital world.

Table 1: Demographic Distribution of Participants

Demographic Category	Sub-Category	Number of Participants	Percentage (%)
Total Population		150	100%
Faculty	Computer Science	50	33.3%
	Education	50	33.3%
	Economics	30	20.0%
	Medical	20	13.3%
Age Group	20-25 years	150	100%

The demographic table highlights the distribution of 150 female participants from an online university, aged 20-25, across four faculties. The majority of participants are equally distributed between the Computer Science and Education faculties, each representing 33.3% of the total population. The Economics faculty accounts for 20% of participants, while the Medical faculty has the smallest representation at 13.3%. This distribution ensures a diverse sample, enabling insights into the digital experiences of women across different academic disciplines. The homogeneous age range (20-25 years) allows for focused analysis on the challenges and opportunities faced by young Afghan women in the digital world.

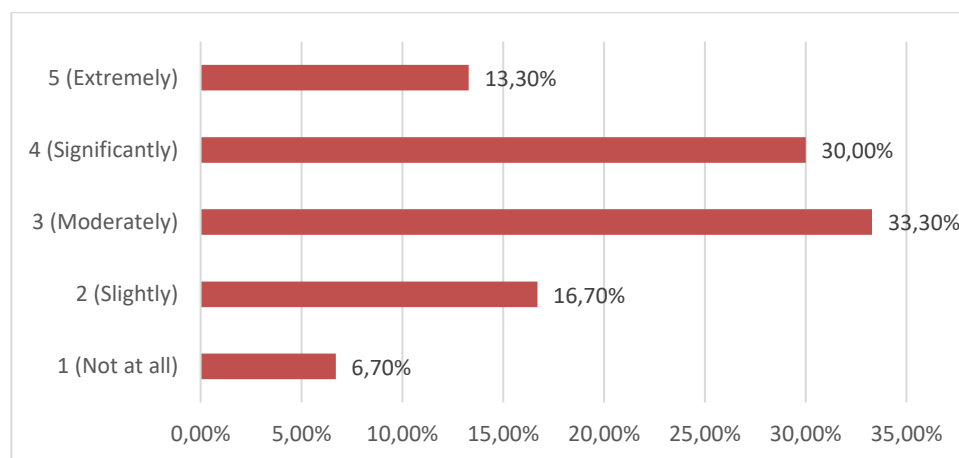


Figure1: To what extent do digital technologies provide Afghan women with access to educational resources?"

The figure 1 summarizes the responses from 150 participants regarding the extent to which digital technologies provide Afghan women with access to educational resources. The majority of respondents (33.3%) indicated that digital technologies provide **moderate access**, while 30.0% reported **significant access**. Only 6.7% of participants felt that digital technologies provide **no access at all**, and 16.7% reported **slight access**. A smaller proportion (13.3%) believed that digital technologies provide **extreme access** to educational resources. This distribution suggests that while digital technologies are perceived as beneficial, there is room for improvement in ensuring greater access for Afghan women.

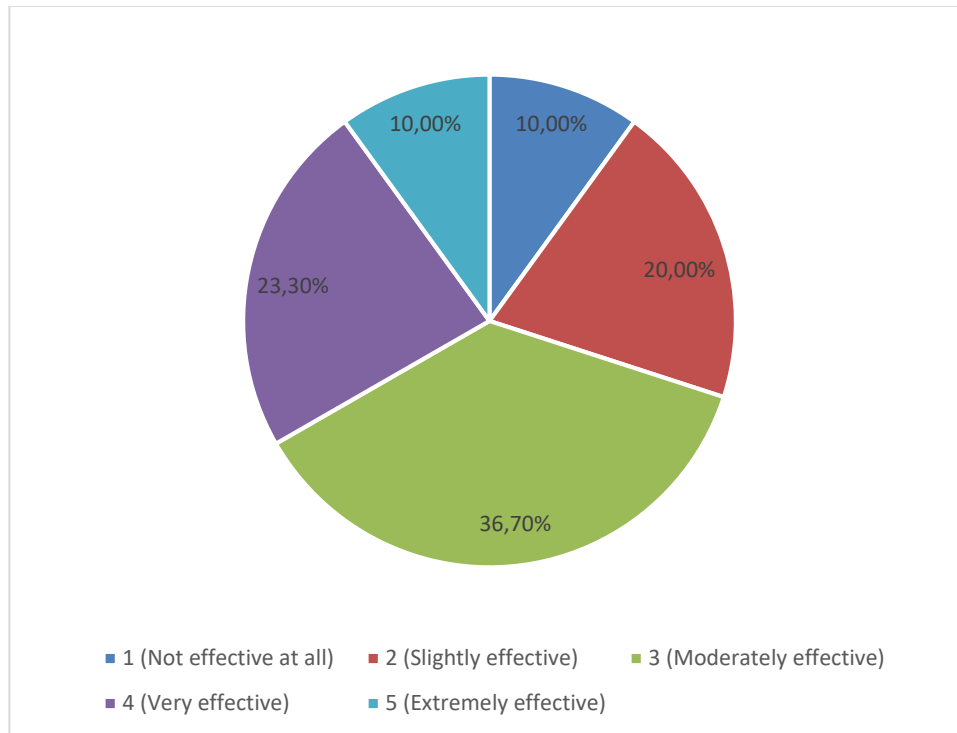


Figure 2: How effective are digital platforms in enabling Afghan women to start and manage online businesses?"

The Figure 2 presents the responses from 150 participants regarding the effectiveness of digital platforms in enabling Afghan women to start and manage online businesses. The majority of respondents (36.7%) indicated that digital platforms are **moderately effective**, while 23.3% reported them to be **very effective**. However, 20.0% of participants felt that digital platforms are only **slightly effective**, and 10.0% believed they are **not effective at all**. An equal proportion (10.0%) found digital platforms to be **extremely effective**. This suggests that while digital platforms are seen as useful tools for entrepreneurship, there are still significant barriers that limit their effectiveness for many Afghan women.

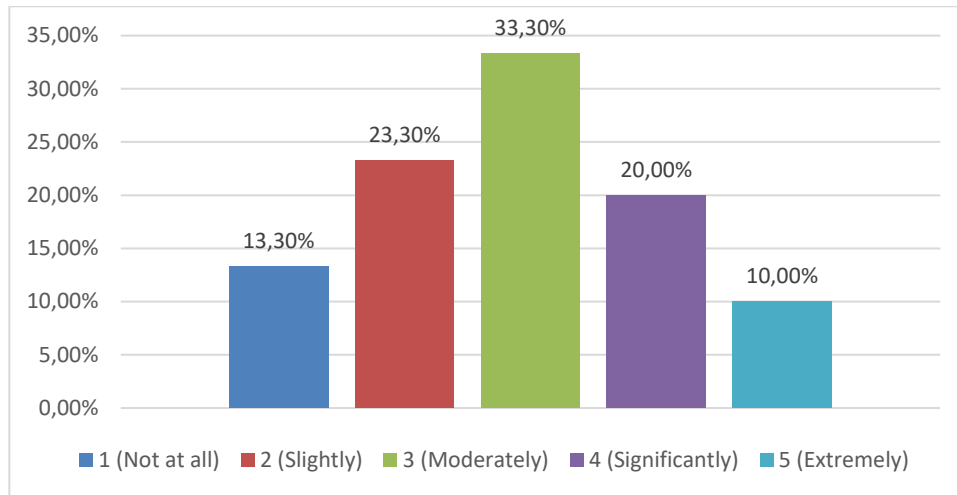


Figure 3: To what extent do cultural norms restrict Afghan women's use of digital technologies?"

The Figure 3 summarizes the responses from 150 participants regarding the extent to which cultural norms restrict Afghan women's use of digital technologies. The majority of respondents (33.3%) indicated that cultural norms **moderately restrict** women's use of digital technologies, while 23.3% reported **slight restrictions**. A significant proportion (20.0%) felt that cultural norms **significantly restrict** access, and 10.0% believed the restrictions are **extreme**. Only 13.3% of participants reported that cultural norms do **not restrict** women's use of digital technologies at all. This highlights the pervasive influence of cultural norms as a barrier to digital inclusion for Afghan women.

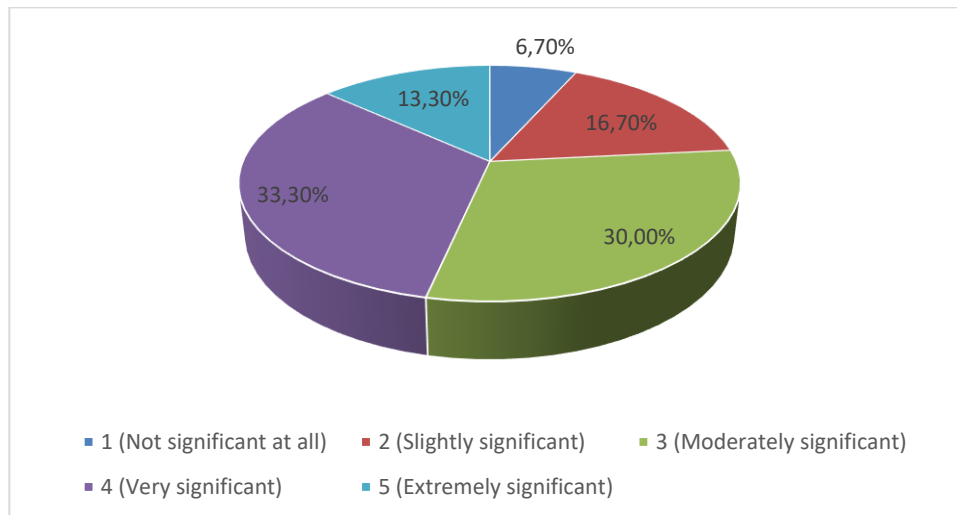


Figure 4: How significant are infrastructural challenges (e.g., lack of internet access) in limiting Afghan women's digital participation?"

The figure 4 presents the responses from 150 participants regarding the significance of infrastructural challenges, such as lack of internet access, in limiting Afghan women's digital participation. The majority of respondents (33.3%) indicated that these challenges are **very significant**, while 30.0% reported them to be moderately significant. A smaller proportion (16.7%) felt the challenges are slightly significant, and 6.7% believed they are not significant at all. Additionally, 13.3% of participants considered infrastructural challenges

to be extremely significant. This underscores the critical role of infrastructure in enabling or hindering Afghan women's digital participation, with a clear need for improved access to digital resources.

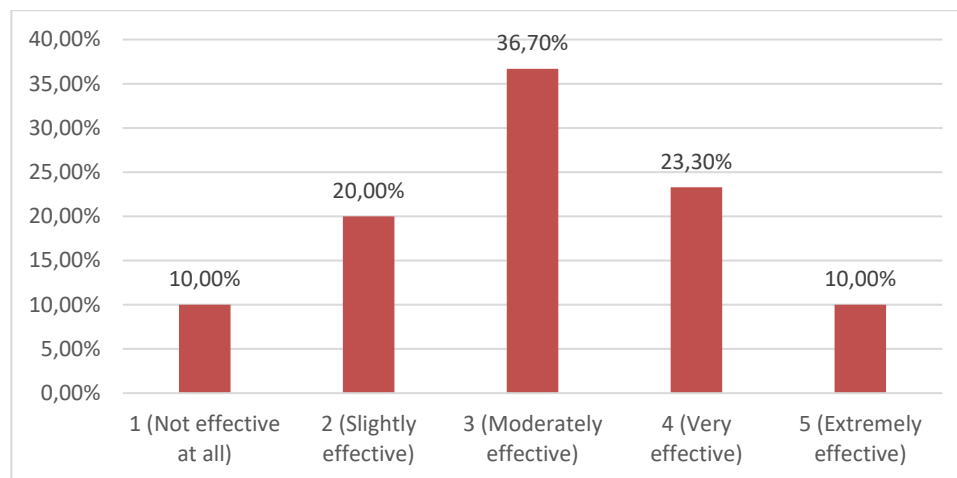


Figure 5: How effective is e-learning in improving educational outcomes for Afghan women?"

Figure 5 summarizes the responses from 150 participants regarding the effectiveness of e-learning in improving educational outcomes for Afghan women. The majority of respondents (36.7%) indicated that e-learning is moderately effective, while 23.3% reported it to be very effective. However, 20.0% of participants felt that e-learning is only slightly effective, and 10.0% believed it is not effective at all. An equal proportion (10.0%) found e-learning to be extremely effective. This suggests that while e-learning is seen as a valuable tool for education, there are still challenges that limit its effectiveness for many Afghan women, such as access to technology and digital literacy.

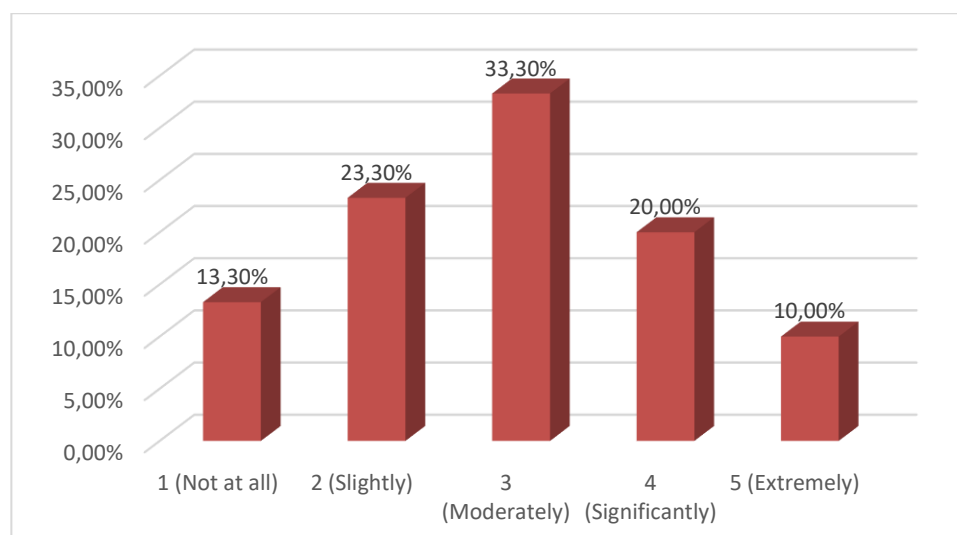


Figure 6: To what extent does e-commerce contribute to the economic empowerment of Afghan women?

Figure 6 summarizes the responses from 150 participants regarding the extent to which e-commerce contributes to the economic empowerment of Afghan women. The majority of respondents (33.3%) indicated that e-commerce

contributes moderately, while 23.3% reported a slight contribution. A significant proportion (20.0%) felt that e-commerce contributes significantly, and 10.0% believed it contributes extremely. However, 13.3% of participants reported that e-commerce does not contribute at all to their economic empowerment. This highlights the potential of e-commerce as a tool for economic empowerment, but also underscores the need to address barriers such as limited access to digital platforms, financial resources, and training to maximize its impact.

DISCUSSION

The findings from this study highlight the dual role of digital technologies as both an enabler and a barrier to the empowerment of Afghan women. Digital tools, such as e-learning platforms and e-commerce, have shown significant potential in advancing education and economic participation among Afghan women. For instance, 36.7% of respondents reported that e-learning is moderately effective in improving educational outcomes, while 33.3% indicated that e-commerce contributes moderately to their economic empowerment (Figure 5 and 6). These results align with previous studies that emphasize the transformative potential of digital technologies in addressing gender disparities in education and entrepreneurship (Afif et al., 2024; Ghiyasi et al., 2024). However, the effectiveness of these tools is often limited by infrastructural and cultural barriers, which hinder their full potential.

Infrastructural challenges, such as limited internet access and inadequate digital literacy, remain significant obstacles. As shown in Figure 4, 33.3% of participants reported that infrastructural challenges are very significant in limiting their digital participation. This finding is consistent with research by Nazari and Musilek (2023), who argue that the gender digital divide in Afghanistan is exacerbated by poor infrastructure and lack of access to digital resources. Without addressing these challenges, the benefits of digital technologies cannot be fully realized, particularly for women in rural or underserved areas.

Cultural norms also play a critical role in restricting women's use of digital technologies. Figure 3 reveals that 33.3% of respondents believe cultural norms moderately restrict their digital participation, while 20.0% consider these restrictions to be significant. This aligns with studies by Akrami et al. (2023) and Putnam (2021), which highlight how societal expectations and gender roles often discourage women from engaging with digital tools. Addressing these cultural barriers requires targeted interventions, such as community awareness campaigns and policies that promote gender equality in the digital sphere.

Despite these challenges, the potential of digital technologies to empower Afghan women is undeniable. For example, 23.3% of participants reported that e-commerce is very effective in fostering economic empowerment (Figure 6), and 30.0% indicated that digital technologies significantly provide access to educational resources (Figure 1). These findings underscore the importance of collaborative efforts among policymakers, educators, and civil society to create an enabling environment for women's digital participation. By addressing

infrastructural gaps, promoting digital literacy, and challenging cultural norms, stakeholders can unlock the full potential of digital technologies to advance gender equality in Afghanistan.

CONCLUSIONS AND RECOMMENDATIONS

The study underscores the transformative potential of digital technologies in empowering Afghan women, particularly in the realms of education, entrepreneurship, and social inclusion. Findings reveal that e-learning and e-commerce platforms have significantly contributed to improving educational outcomes and fostering economic independence among women. However, the full potential of these tools is hindered by persistent challenges, including infrastructural limitations, cultural norms, and low digital literacy. While a substantial proportion of participants acknowledged the benefits of digital technologies, many also highlighted the barriers that restrict their access and usage. These challenges are particularly pronounced in rural and underserved areas, where internet connectivity and digital resources are scarce. Addressing these barriers is essential to ensure that Afghan women can fully participate in the digital world and reap its benefits. Collaborative efforts involving policymakers, educators, and civil society are crucial to creating an enabling environment that supports women's digital empowerment. By overcoming these obstacles, Afghanistan can harness the power of digital technologies to advance gender equality and foster sustainable development.

Recommendations

Improve Infrastructure: Expand internet access and digital infrastructure, particularly in rural and underserved areas, to ensure that all Afghan women can benefit from digital technologies. Investments in affordable and reliable internet services are critical to bridging the digital divide.

Promote Digital Literacy: Implement targeted digital literacy programs to equip women with the skills needed to effectively use digital tools. These programs should be accessible and tailored to the specific needs of women from diverse backgrounds.

Address Cultural Barriers: Launch awareness campaigns to challenge cultural norms that restrict women's use of digital technologies. Engaging community leaders and influencers can help shift societal attitudes and promote gender equality in the digital sphere.

Support E-Commerce Initiatives: Provide training, resources, and financial support to women entrepreneurs to help them establish and grow online businesses. Creating platforms for networking and mentorship can further enhance their economic empowerment.

Develop Inclusive Policies: Formulate and implement policies that promote gender equality in the digital space. This includes ensuring women's representation in decision-making processes related to technology and digital development.

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