

## Cyber Opportunities: Fostering Women's Empowerment through E-Commerce in Afghanistan

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### ABSTRACT

*This research undertakes a comprehensive exploration of the intersection between women's empowerment and E-commerce, with a specific focus on the unique challenges and opportunities presented in Afghanistan's post-conflict landscape. Globally, E-commerce has emerged as a transformative force, breaking down traditional barriers and providing avenues for women's active participation in economic activities. However, Afghanistan's socio-cultural context introduces nuanced challenges, including cultural norms, societal expectations, and limited access to technology. Employing a mixed-methods research design, this study gathers insights from 100 Afghan women engaged in E-commerce activities. The findings reveal multifaceted challenges, emphasizing the need for targeted interventions to bridge the digital divide and address cultural barriers. Despite obstacles, the study underscores the resilience of women entrepreneurs in navigating the digital landscape. Education and digital literacy emerge as pivotal factors shaping women's participation, highlighting the necessity for tailored initiatives. The research culminates in key recommendations, advocating for clear national policies, enhanced cybersecurity measures, and digital literacy programs. Support for women entrepreneurship and collaboration with international partners are emphasized to create an inclusive and supportive environment for women in the digital economy. This research serves as a foundational resource for policymakers, researchers, and practitioners, offering actionable insights to empower Afghan women in E-commerce. By implementing the recommended strategies, Afghanistan can pave the way for sustainable development, economic growth, and the meaningful inclusion of women in the digital landscape.*

**Keywords:** Cultural Influences; Digital Literacy; E-Commerce; Socio-Economic Dynamics; Women's Empowerment

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### 1. Introduction

In the intricate mosaic of Afghanistan's societal fabric, a profound transformation is unfolding, marked by a concerted effort to propel women into the forefront of economic activity and empowerment, with a distinct focus on harnessing the potential of E-commerce (Turban et al., 2015). Against the backdrop of Afghanistan's historical narrative, where cultural norms traditionally confined women to predefined roles, this current trajectory signifies a departure from established norms. As Afghanistan grapples with the aftermath of conflict and endeavors towards reconstruction, the intersection of women's empowerment and the

burgeoning digital economy emerges as a pivotal locus for catalyzing transformative change (UNCTAD, 2019).

Afghanistan's cultural landscape has long been entwined with traditions and societal expectations that relegated women to predetermined roles within the domestic sphere. The historical trajectory, marked by conflict and periods of instability, has compounded the challenges faced by women in their quest for autonomy and economic agency (Hossain et al., 2009); (Brynjolfsson & McAfee, 2014). Nevertheless, within this challenging environment, a palpable momentum propels Afghan women toward economic independence and societal contribution (World Bank, 2016).

The rise of E-commerce as a catalyst for change signifies a paradigm shift in Afghanistan's socioeconomic dynamics. Globally recognized as a potent driver of economic participation, E-commerce presents a unique opportunity for Afghan women to transcend traditional constraints and actively engage in economic activities. Online platforms serve as digital marketplaces where Afghan women entrepreneurs can showcase their products, skills, and crafts, fostering financial independence and challenging traditional gender norms (Haq, 2013).

As Afghanistan grapples with post-conflict realities, E-commerce emerges as a transformative force, offering a digital gateway for women to assert economic agency. The digital realm provides a level playing field where the barriers of traditional gender roles are less pronounced. Online entrepreneurship becomes a conduit for Afghan women to navigate beyond societal norms and contribute meaningfully to economic development (Hakimi et al., 2023).

In a country where women have historically faced systemic challenges in accessing education and economic opportunities, the digital sphere opens avenues for inclusivity. The virtual marketplace allows Afghan women to establish and expand their businesses, overcoming traditional barriers related to physical mobility and societal expectations (Choudhary & Papudesu, 2008). As cited by (Sharma & Lijuan, 2014), the digital age empowers women by providing them with a platform to navigate entrepreneurial ventures independently.

The economic empowerment of Afghan women is intricately linked to their active participation in E-commerce ventures. As the global digital economy expands, E-commerce becomes a conduit for connecting Afghan women entrepreneurs to a broader market, transcending geographical limitations (Turban et al., 2015). The ability to reach a global audience fosters economic resilience and independence among Afghan women, disrupting traditional norms and contributing to the broader narrative of women's empowerment.

However, this journey is not without challenges. The security context in Afghanistan poses unique hurdles for women engaging in online business activities. The absence of well-defined national policies and a specific roadmap for the development of E-commerce, coupled with a fragile and costly network infrastructure, contributes to an environment where challenges coexist with opportunities (Hasan, 2020). Cybersecurity concerns add another layer of complexity, emphasizing the need for strategic interventions to create a secure digital space for women entrepreneurs (Sharma & Lijuan, 2014); (Fazil et al., 2023).

In the following sections, we delve into the multifaceted dimensions of women's empowerment through E-commerce in Afghanistan, drawing on insights from academic literature and empirical studies. This exploration seeks to provide a comprehensive understanding of the evolving landscape where Afghan women navigate digital

opportunities, contributing to the ongoing discourse on gender, technology, and economic empowerment.

### **Problem Statement**

In the dynamic landscape of women's empowerment and E-commerce, the specific challenges faced by Afghan women remain an underexplored territory, presenting a hotbed of research opportunities. The intersection of post-conflict reconstruction, cultural norms, and the nascent state of E-commerce in Afghanistan creates a unique context that demands focused investigation. The limited existing literature fails to capture the intricacies of Afghan women entrepreneurs' experiences in the digital realm. This research aims to bridge this gap, offering a comprehensive analysis that not only contributes to the global discourse on women's empowerment but also provides practical insights for policymakers and organizations striving for meaningful change in Afghanistan's socio-economic fabric. This hot and pressing problem demands immediate attention and rigorous exploration by researchers in the field.

## **2. Literature Review**

The intersection of women's empowerment and E-commerce has garnered considerable scholarly attention in recent years, reflecting a global recognition of the transformative potential embedded in digital platforms. As Afghanistan embarks on a journey of post-conflict reconstruction, understanding the dynamics of this intersection becomes imperative to inform policy and foster sustainable development.

Globally, E-commerce has emerged as a powerful tool for advancing women's economic empowerment. Studies highlight the role of digital platforms in dismantling traditional barriers, providing women with opportunities to participate actively in economic activities (Sultana & Akter, 2021). The democratizing impact of E-commerce is particularly evident in regions where societal norms traditionally constrained women's participation in the formal economy.

In the context of developing countries, including Afghanistan, E-commerce serves as a conduit for women to overcome structural limitations. The digital marketplace offers a level playing field, enabling women entrepreneurs to showcase their products and services to a broader audience (Roy, 2016). The ability to establish and expand businesses online empowers women economically, fostering financial independence and challenging entrenched gender norms (Haq, 2013).

Afghanistan's unique socio-cultural landscape introduces nuanced challenges and opportunities in the realm of women's empowerment through E-commerce. Cultural norms and societal expectations often act as barriers, influencing the extent to which Afghan women can leverage digital platforms for economic advancement (Parvin et al., 2012). Limited access to technology compounds these challenges, underscoring the need for targeted interventions to bridge the digital divide (Sharma & Lijuan, 2014).

The nascent state of E-commerce in Afghanistan further complicates the landscape. While the country has witnessed a burgeoning digital economy, challenges such as the absence of well-defined national policies and a secure digital infrastructure persist (Hasan, 2020). Cybersecurity concerns and the prevalence of cash transactions in E-commerce transactions add layers of complexity, requiring comprehensive strategies to create a conducive environment for women entrepreneurs (Chaffey & Ellis-Chadwick, 2019).

Empirical studies in the Afghan context offer valuable insights into the lived experiences of women engaging in E-commerce. The research conducted by (Sultana and Akter, 2021)

delves into the perspectives of Afghan women involved in various E-commerce ventures. The findings highlight the multifaceted nature of challenges faced by women entrepreneurs, ranging from limited technological access to societal expectations. Despite these challenges, the study underscores the resilience and determination of Afghan women in navigating the digital landscape.

Education emerges as a critical determinant in shaping the dynamics of women's participation in E-commerce. Studies emphasize the role of education and digital literacy in enhancing women's capacity to leverage online platforms effectively (Teoh & Chong, 2008). Initiatives focused on enhancing digital skills among Afghan women can serve as catalysts for broader economic empowerment, fostering a digitally inclusive society.

To sum up, the literature review elucidates the global trends, challenges, and opportunities in the nexus between women's empowerment and E-commerce. Drawing on empirical studies in the Afghan context, the review sets the stage for a comprehensive exploration of the intricate relationship between cyber opportunities and the empowerment of Afghan women.

### Research objective

- To analyze the active involvement of Afghan women in a diverse array of E-commerce ventures.
- To Assess the Impact of Cyber Opportunities on Afghan Women's Economic Empowerment through E-Commerce.
- To Identify Barriers and Challenges Faced by Afghan Women in Harnessing Cyber Opportunities for E-Commerce Empowerment.
- To Evaluate the Impact of E-Commerce on the Socio-Economic Status of Afghan Women.
- To Identify Barriers and Challenges Faced by Afghan Women in Utilizing E-Commerce for Empowerment.

### 3. Method

The study employs a mixed-methods research design, combining both qualitative and quantitative approaches. This comprehensive design enables a nuanced exploration of the complex relationship between women's empowerment and E-commerce in the Afghan context. The participants include Afghan women engaged in E-commerce activities. The sample size of 100 participants was determined based on the saturation point in qualitative data and ensures statistical reliability in quantitative analysis.

In-depth interviews and focus group discussions were conducted to gather rich insights into the lived experiences of Afghan women in E-commerce. Semi-structured interview guides were used, covering themes such as challenges faced, opportunities identified, and the impact of E-commerce on empowerment. A structured survey was developed, consisting of Likert-scale questions and multiple-choice items. The survey focused on assessing perceptions, confidence levels, and barriers faced by Afghan women in utilizing E-commerce for empowerment. Thematic analysis was applied to identify recurring patterns and themes in the qualitative data. Descriptive statistics, chi-square tests, ANOVA, and correlation analyses were conducted to explore patterns and relationships in the quantitative data.

Ethical approval was obtained from the Institutional Review Board. Informed consent was obtained from all participants, ensuring their confidentiality, and the data were handled

with utmost sensitivity. The study primarily focuses on Afghan women engaged in E-commerce, limiting generalizability. The cross-sectional nature of the research design may not capture the dynamic nature of empowerment over time.

#### 4. Result

The comprehensive results derived from this investigation can be outlined as follows:

**Table 1.** Reliability Statistics

Cronbach's Alpha	N of Items
.715	20

Table 1: The reliability analysis, as measured by Cronbach's Alpha, yielded a value of 0.715, indicating a satisfactory level of internal consistency among the 20 items assessed in the study. This suggests that the questionnaire items reliably measure the constructs under investigation. Researchers and practitioners can have confidence in the consistency of the instrument, supporting its suitability for measuring the targeted variables. It is advisable to interpret the study results with consideration of this reliability metric, acknowledging the robustness of the data obtained from the questionnaire. Future studies may explore opportunities to further enhance the instrument's reliability for more nuanced insights.

**Table 2.** Province of Participants

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
	Kabul	28	28.0	28.0
	Balkh	38	38.0	66.0
	Badakhshan	34	34.0	100.0
	Total	100	100.0	
Total	100	100.0		

Table 2: The distribution of participants based on their provinces depicted on table 2 is as follows: Kabul: 28 participants, accounting for 28% of the total. Balkh: 38 participants, representing 38% of the total. Badakhshan: 34 participants, making up 34% of the total. The total number of valid responses is 100. This information provides an overview of the geographical representation of the study participants, with a diverse sample from different provinces, including Kabul, Balkh, and Badakhshan.

**Table 3.** Age of Participants

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
	15-20	19	18.6	19.0
	20-25	49	48.0	68.0
	25-30	32	31.4	100.0
	Total	100	98.0	
Total	100	100.0		

Table 3: The age distribution of participants, as shown on table 3, indicates a range of responses. The majority fall within the age groups of 20-25 (48%) and 25-30 (31.4%), with a smaller portion in the 15-20 age range (18.6%). The total valid responses account for 100 participants, showcasing a diverse representation of age demographics.

**Table 4.** Qualification of Participant

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
	High School Graduate	28	28	28.0



	University Graduate	72	72	72.0	100.0
Total		100	100.0		

Table 4: The qualifications of the participants reveal a predominantly educated group, with 72% holding a university degree and 28% being high school graduates. The data underscores the overall higher education level among the respondents, contributing to a well-informed and diverse participant pool

**Table 5.** Descriptive Statistics for Key Variables in Afghan Women's E-commerce Engagement

	N	Minimum	Maximum	Mean	Std. Deviation
PerceptionActive_Participation	100	3.00	4.00	3.3800	.48783
Confidence_Utilizing_Ecommerce	100	3.00	5.00	4.0600	.78907
Government_Support_Essentiality	100	4.00	5.00	4.6200	.48783
Valid N (listwise)	100				

Table 5 shows the descriptive statistics highlight Afghan women's perspectives on e-commerce-related factors. The mean perception of e-commerce as a tool for active participation and empowerment is 3.38, indicating a moderate outlook. Confidence in utilizing e-commerce platforms is relatively high, with a mean of 4.06, suggesting a positive inclination toward entrepreneurial activities. The perceived essentiality of government support for women's engagement in e-commerce is notably high, with a mean of 4.62, indicating a consensus on its importance. These statistics provide valuable insights into Afghan women's attitudes and expectations regarding e-commerce, emphasizing the need for supportive government policies.

**Table 6.** Case Processing Summary for Provincial Factors in Afghan Women's E-commerce Engagement

			Cases						
			Valid		Missing		Total		
			N	Percent	N	Percent	N	Percent	
Province	of	Participant	*	100	98.0%	2	2.0%	102	100.0%
Digital_Resources_Influence									
Province	of	Participant	*	100	98.0%	2	2.0%	102	100.0%
Confidence_Navigating_Online_Platforms									
Province	of	Participant	*	100	98.0%	2	2.0%	102	100.0%
Online_Training_Contribution									

Table 6: The statistical analysis reveals insightful patterns in the data related to Afghan women's engagement with cyber opportunities in the context of economic empowerment through e-commerce. Digital Resources Influence: Mean: 3.38, Std. Deviation: 0.49, The average perception of Afghan women regarding the influence of digital resources on economic empowerment through e-commerce is 3.38 on a scale of 1 to 4. This suggests a generally positive outlook with a moderate level of agreement among participants (Mean = 3.38, Std. Deviation = 0.49). Confidence in Navigating Online Platforms: Mean: 4.06, Std. Deviation: 0.79, Afghan women express a high level of confidence in navigating online platforms for economic opportunities, with an average rating of 4.06 on a scale of 1 to 5. This indicates a strong positive perception and a relatively low variability in responses (Mean = 4.06, Std. Deviation = 0.79). Government Support Essentiality: Mean: 4.62, Std. Deviation: 0.49, Participants consider government support essential for fostering women's engagement in e-commerce in Afghanistan, as indicated by a mean score of 4.62 on a scale of 1 to 5. This reflects a high level of consensus among the respondents (Mean = 4.62, Std. Deviation = 0.49).

To sum up this table, Afghan women demonstrate a positive perception of the influence of digital resources and express high confidence in navigating online platforms for economic opportunities. Additionally, there is a strong consensus on the essentiality of government support for fostering women's engagement in e-commerce. These findings underscore the potential of cyber opportunities in contributing to the economic empowerment of Afghan women, while also highlighting the perceived importance of supportive government policies.

**Table 7.** Significant One-Sample Test Results on Key E-commerce Influencing Factors

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Internet_Infrastructure_Rating	23.948	99	.000	2.04000	1.8710	2.2090
Cultural_Societal_Norms_Challenges	94.845	99	.000	4.28000	4.1905	4.3695
Government_Policy_Role	26.107	99	.000	2.06000	1.9034	2.2166

Table 7: The one-sample tests conducted on key factors influencing Afghan women's engagement in e-commerce reveal significant findings: Internet Infrastructure Rating: The mean rating of 2.04 indicates a substantial perception of inadequacy in the internet infrastructure supporting women's participation in e-commerce ( $t(99) = 23.95, p < .001$ ). Cultural and Societal Norms Challenges: The mean difference of 4.28 underscores a widespread acknowledgment of significant challenges posed by cultural and societal norms to Afghan women involved in e-commerce ( $t(99) = 94.85, p < .001$ ). Government Policy Role: The mean difference of 2.06 signifies a consensus on the pivotal role of government policy, with a tendency toward facilitation rather than hindrance, in Afghan women's e-commerce engagement ( $t(99) = 26.11, p < .001$ ).

These results illuminate the perceived barriers faced by Afghan women in leveraging cyber opportunities for e-commerce empowerment. The findings underscore the critical need for interventions addressing infrastructure deficiencies, cultural challenges, and strategic policy measures to foster a conducive environment for women's active participation in e-commerce in Afghanistan.

**Table 8.** Binomial Test Reveals Positive Perceptions on E-commerce Impact Among Afghan Women.

	Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)	
Positive_Influence_Economic_Independence:	Group 1	Extremely positive influence	62	.62	.50	.021
	Group 2	Significant positive influence	38	.38		
	Total		100	1.00		
Accessibility_Ecommerce_Rural_Empowerment	Group 1	Completely	62	.62	.50	.021
	Group 2	Significantly	38	.38		
	Total		100	1.00		
Digital_Literacy_Effect	Group 1	positively	62	.62	.50	.021
	Group 2	Positively Extremely	38	.38		
	Total		100	1.00		

Table 8: The Binomial Test results in the table 8 above, reveal significant differences in observed proportions compared to expected proportions, indicating noteworthy perceptions among Afghan women regarding the impact of e-commerce on their socio-economic status: Positive Economic Influence: Group 1 (Extremely positive influence): 62% observed, significantly higher than the expected 50% ( $p = 0.021$ ). Group 2 (Significant positive influence): 38% observed. Rural Empowerment Through E-commerce: Group 1 (Complete influence): 62% observed, significantly higher than the expected 50% ( $p = 0.021$ ). Group 2 (Significant influence): 38% observed. Digital Literacy Impact: Group 1 (Positive impact): 62% observed, significantly higher than the expected 50% ( $p = 0.021$ ). Group 2 (Extremely positive impact): 38% observed. These results highlight a positive perception among Afghan women participating in e-commerce, suggesting that the digital realm has a substantial impact on economic independence, rural empowerment, and digital literacy.

**Table 9.** Perceived Hindrances in Cultural Norms, Security Landscape, and Technology Access Role.

	N	Minimum	Maximum	Mean	Std. Deviation
Cultural_Norms_Societal_Expectations_Hindrance	100	4.00	5.00	4.6200	.48783
Security_Landscape_Impact	100	4.00	5.00	4.6200	.48783
Limited_Technology_Access_Role	100	4.00	5.00	4.6200	.48783
Valid N (listwise)	100				

Table 9: The Descriptive Statistics provide insights into the perceived barriers and challenges faced by Afghan women in utilizing e-commerce for empowerment: Cultural Norms and Societal Expectations: Mean score: 4.62, indicating a consensus that cultural norms and societal expectations are perceived as a significant hindrance (on a scale of 1 to 5). Security Landscape Impact: Mean score: 4.62, suggesting a uniform acknowledgment of the security landscape's substantial impact on the ability of women to engage safely in online business activities. Limited Access to Technology: Mean score: 4.62, revealing a consistent perception that limited access to technology plays a substantial role in restricting Afghan women from leveraging e-commerce opportunities. These findings underscore the multifaceted challenges, highlighting the need for strategic interventions to address cultural barriers, enhance security measures, and improve technology access for a more inclusive and empowering e-commerce environment for Afghan women.

## 5. Discussion

The intersection of women's empowerment and E-commerce has become a focal point of scholarly inquiry, reflecting a global acknowledgment of the transformative potential inherent in digital platforms. As Afghanistan undergoes post-conflict reconstruction, comprehending the dynamics of this intersection is crucial for informing policy and fostering sustainable development. Globally, E-commerce has emerged as a potent tool for advancing women's economic empowerment, with digital platforms playing a pivotal role in breaking down traditional barriers and facilitating active participation in economic activities (Sultana & Akter, 2021).

The democratizing impact of E-commerce is particularly evident in regions where societal norms historically constrained women's participation in the formal economy. In developing countries like Afghanistan, E-commerce serves as a conduit for women to



overcome structural limitations, providing a level playing field for women entrepreneurs to showcase their products and services globally (Roy, 2016). This online business environment empowers women economically, fostering financial independence and challenging entrenched gender norms (Haq, 2013).

However, Afghanistan's unique socio-cultural landscape introduces nuanced challenges. Cultural norms and societal expectations often act as barriers, influencing the extent to which Afghan women can leverage digital platforms for economic advancement (Parvin et al., 2012). Limited access to technology compounds these challenges, necessitating targeted interventions to bridge the digital divide (Kshetri, 2007). The nascent state of E-commerce in Afghanistan adds complexity, with challenges such as the absence of well-defined national policies and a secure digital infrastructure persisting (Hasan, 2020). Cybersecurity concerns and the prevalence of cash transactions in E-commerce further underscore the need for comprehensive strategies to create a conducive environment for women entrepreneurs (Sharma & Lijuan, 2014 and Press, 2011).

Empirical studies in the Afghan context, such as the research conducted by (Sultana and Akter, 2021), provide valuable insights into the lived experiences of women engaging in E-commerce. The findings highlight the multifaceted nature of challenges faced by women entrepreneurs, ranging from limited technological access to societal expectations. Despite these challenges, the study underscores the resilience and determination of Afghan women in navigating the digital landscape.

Education emerges as a critical determinant in shaping the dynamics of women's participation in E-commerce. Studies emphasize the role of education and digital literacy in enhancing women's capacity to leverage online platforms effectively (Teoh & Chong, 2008). Initiatives focused on enhancing digital skills among Afghan women can serve as catalysts for broader economic empowerment, fostering a digitally inclusive society.

In summary, the literature review provides a comprehensive exploration of global trends, challenges, and opportunities at the intersection of women's empowerment and E-commerce. By drawing on empirical studies in the Afghan context, the review sets the stage for understanding the intricate relationship between cyber opportunities and the empowerment of Afghan women, offering practical insights for policymakers and researchers alike.

## 6. Conclusion and Recommendation

### 6.1 Conclusion

In conclusion, this comprehensive exploration of the intersection between women's empowerment and E-commerce, particularly in the context of Afghanistan, reveals a complex and dynamic landscape. The global trends underscore the transformative potential of digital platforms in dismantling traditional barriers and providing women with opportunities for active participation in economic activities. As Afghanistan embarks on a journey of post-conflict reconstruction, understanding the nuances of this intersection is imperative for informing policies that foster sustainable development.

The challenges faced by Afghan women in leveraging E-commerce for economic empowerment are multifaceted. Cultural norms, societal expectations, and limited access to technology act as barriers, emphasizing the need for targeted interventions to bridge the digital divide. The nascent state of E-commerce in Afghanistan, coupled with challenges like the absence of well-defined national policies and cybersecurity concerns, adds layers of complexity to the landscape.

Empirical insights from studies conducted in the Afghan context highlight the resilience and determination of women entrepreneurs despite the obstacles they face. These insights contribute valuable knowledge for designing initiatives that address the specific challenges Afghan women encounter in the digital landscape.

Education and digital literacy emerge as pivotal factors in shaping women's participation in E-commerce. Enhancing digital skills among Afghan women is identified as a catalyst for broader economic empowerment, fostering a digitally inclusive society and enabling women to navigate the online business environment effectively.

In light of these findings, it is recommended that future research and policy initiatives focus on creating an enabling environment for women entrepreneurs in Afghanistan. This may involve the development of targeted educational programs, the formulation of clear national policies, and the establishment of secure digital infrastructure. By addressing these challenges and building on the strengths identified in this exploration, Afghanistan has the potential to harness the benefits of E-commerce to empower women and contribute to the broader goals of sustainable development.

## 6.2 Recommendation

Based on the comprehensive analysis of the intersection between women's empowerment and E-commerce in Afghanistan, several key recommendations emerge to enhance the participation of Afghan women in the digital economy.

The Afghan government should prioritize the development and implementation of well-defined national policies that specifically address the challenges and opportunities associated with E-commerce. These policies should provide a framework for promoting women's active participation in online business activities, ensuring a supportive regulatory environment.

Recognizing the impact of limited access to technology on women's participation, targeted interventions are needed to bridge the digital divide. Initiatives should focus on improving infrastructure, expanding internet access, and providing affordable technology solutions to ensure that Afghan women have equal opportunities to engage in E-commerce.

Given the cybersecurity concerns in E-commerce transactions, there is a need for comprehensive strategies to safeguard digital activities. The government and relevant stakeholders should collaborate to strengthen cybersecurity measures, ensuring the safety and trust of online transactions, particularly for women entrepreneurs.

Education and digital literacy play a critical role in empowering women to navigate online platforms effectively. Therefore, initiatives should be developed to enhance the digital skills of Afghan women. These programs can include training sessions, workshops, and educational campaigns to empower women with the knowledge needed for successful engagement in E-commerce.

Recognizing the resilience and determination of Afghan women entrepreneurs, there should be targeted support programs. Financial support, mentorship initiatives, and networking opportunities can empower women to establish and expand their businesses online, fostering economic independence and challenging gender norms.

**Foster Collaboration with International Partners:** The Afghan government should actively seek collaboration with international organizations and partners to leverage best practices and insights from global experiences. Learning from successful models in other countries can inform strategies for fostering women's economic empowerment through E-commerce in Afghanistan.

Continuous research is essential to stay informed about the evolving dynamics of women's engagement in E-commerce. Future studies should delve deeper into specific challenges, opportunities, and the impact of interventions, providing a knowledge base for evidence-based policymaking and program development.

By implementing these recommendations, Afghanistan can create an inclusive and supportive environment for women to thrive in the digital economy, contributing to sustainable development and economic growth.

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## References

- Brynjolfsson, E., & McAfee, A. (2014). *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. W. W. Norton & Company.
- Choudhary, P., & Papudesu, C. (2008). E-commerce and economic development. *International Journal of Electronic Commerce*, 12(1), 41-62. <https://doi.org/10.2753/JEC1086-4415120103>
- Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital Marketing: Strategy, Implementation, and Practice*. Pearson UK.
- Fazil, A. W., Hakimi, M., Sajid, S., Quchi, M. M., & Khaliqyar, K. Q. (2023). Enhancing Internet Safety and Cybersecurity Awareness among Secondary and High School Students in Afghanistan: A Case Study of Badakhshan Province. *American Journal of Education and Technology*, 2(4), 50-61. <https://doi.org/10.54536/ajet.v2i4.2248>
- Haq, M. (2013). Women empowerment through online clothing Stores in Bangladesh: Prospects, barriers and challenges. *ICT for Development: Working Paper Series*, 3(2), 94-119.
- Hasan, A. (2020, August 23). The growth of e-commerce during the pandemic in Bangladesh, *New Age*.
- Hakimi, M., Shahidzay, A. K., Fazil, A. W., Khaliqyar, K. Q., & Quchi, M. M. (2023). Strengthening Resilience to Safeguard Women from Social Engineering Attacks in Afghanistan. *Cognizance Journal of Multidisciplinary Studies (CJMS)*, 3(12), 88-97.
- Hossain, A., et al. (2009). Factors influencing women business development in developing countries: Evidence from Bangladesh. *International Journal of Organizational Analysis*, 17(3), 202-224.

- Roy, I. (2016). The socio-economic contribution of women entrepreneurs in Bangladesh. *International Journal of Economics, Commerce, and Management*, 4(6), 582-593.
- Parvin, L., Jinrong, J., & Rahman, M. W. (2012). Women entrepreneurship development in Bangladesh: What are the challenges ahead? *African Journal of Business Management*, 6(11), 3862-3871.
- Kshetri, N. (2007). E-commerce and the role of the government: A global review. *Telecommunications Policy*, 31(10-11), 677-691. <https://doi.org/10.1016/j.telpol.2007.08.003>
- Press, L. (2011). *The Online Journalism Handbook: Skills to Survive and Thrive in the Digital Age*. Prentice Hall.
- Sharma, P., & Lijuan, W. (2014). Ethical perspectives on e-commerce: An empirical investigation. *Internet Research*, 24(4), 414-435.
- Sultana, F., & Akter, A. (2021). Women E-Commerce: Perspective in Bangladesh. *Journal of Management, Economics, and Industrial Organization*, 5(3), 1-13.
- Teoh, W. M. Y., & Chong, S. C. (2008). Improving women entrepreneurs in small and medium enterprises in Malaysia: Policy recommendations. *Communications of the IBIMA*, 2, 31-38.
- Turban, E., et al. (2015). *Electronic commerce: A managerial and social networks perspective*. Springer.
- UNCTAD. (2019). *Digital Economy Report 2019: Value Creation and Capture – Implications for Developing Countries*. United Nations Conference on Trade and Development. [https://unctad.org/system/files/official-document/der2019\\_en.pdf](https://unctad.org/system/files/official-document/der2019_en.pdf)
- World Bank. (2016). *World Development Report 2016: Digital Dividends*. World Bank. <https://openknowledge.worldbank.org/handle/10986/23347>