



SOCIAL MEDIA ADOPTION AND ENTREPRENEURIAL OUTCOMES AMONG WOMEN ENTREPRENEURS IN HYDERABAD, SINDH, PAKISTAN

Dr. Shazia Shahab Shaikh ¹, Dr. Sarfraz Ali Malak ²

DOI: <https://doi.org/10.63544/ijss.v5i3.291>

Affiliations:

¹ Assistant Professor,
Media & Communication Studies,
University of Sindh, Jamshoro.
Email: shazia.shahabshaikh@gmail.com
<https://orcid.org/0000-0002-7626-3355>

² Assistant Professor,
Department of Business Administration,
University of Sindh (Campus Dadu),
Sindh, Pakistan.
Email: malak.sarfraz@usindh.edu.pk
<https://orcid.org/0000-0002-6991-8253>

Corresponding Author's Email:

¹ shazia.shahabshaikh@gmail.com

Copyright:

Author/s

License:



Article History:

Received: 11.04.2026

Accepted: 28.04.2026

Published: 09.05.2026

Abstract

Despite a greater research focus on exploring the role of social media in businesses, less has been researched on the impact of social media adoption among women entrepreneurs. To address the research gap, a study on social media adoption and entrepreneurial outcomes in the context of women in Hyderabad, Sindh, Pakistan has been conducted by extending the Technology Adoption Model (TAM). The data have been collected from the 191 women entrepreneurs through online survey questions by applying convenience sampling. Data were analysed using SPSS 26, employing descriptive statistics, reliability analysis, multiple regression, and mediation analysis via the PROCESS Macro (Model 4). The results of the study reveal that perceived usefulness significantly and positively affects empowerment and visibility, as well as marketing and customer engagement, while perceived ease of use positively influences empowerment and visibility, networking, and learning. Furthermore, marketing and customer engagement, networking and learning significantly enhance intention to use social media, whereas empowerment and visibility showed an insignificant direct effect on intention to use. Mediation analysis indicates that empowerment and visibility partially mediate the relationship between perceived usefulness and intention to use social media. Similarly, networking and learning partially mediate the relationship between perceived ease of use and intention to use social media, while marketing and customer engagement fully mediate the relationship between perceived usefulness and intention to use social media. This investigation concluded that marketing and customer engagement provide better business value, and they motivate women entrepreneurs to use social media for business success. The outcomes of the study support the extension of TAM from the perspective of women entrepreneurs and also offer insights for stakeholders and policymakers for designing effective training interventions to foster digital entrepreneurship in Pakistan.

Keywords: Social Media, Women Entrepreneurs, Impact, Hyderabad, Adoption.

1. Introduction

Social media is digital platform that enhance visibility, information dissemination, customer engagement, and credibility among women entrepreneurs, while also fostering community-building (Hoti, 2025; Shaikh & Malak, 2026). Social media participation significantly enhances digital entrepreneurship among women by improving access to resources, networks, and opportunities (Chakraborty & Biswal, 2023).



Additionally, social media is extensively utilized by women entrepreneurs in Yemen and plays a significant role in supporting various business strategies and operations, particularly in marketing, promotion, and communication (Alhakimi, & Albashiri, 2023). Scholars agreed that this transformative effect is particularly significant for women-owned small enterprises, which play a vital role in the global economy (Mallios et al., 2023; Chaker & Zouaoui, 2022). Previous studies have recognized the benefits and importance of social media use for small businesses (Iqbal, 2020; Milwood & Maxwell, 2020; Thompson-Whiteside et al., 2018).

Contrary to previous studies, the female entrepreneurs underlined the ongoing difficulty of work-life balance while expressing no discernible gender stereotypes online. Women entrepreneurs face distinct challenges in the digital economy, including limited access to capital and networks, as well as societal biases within the digital startup ecosystem (Anggadwita et al., 2025). Also, emphasizing women's empowerment through technology and the importance of policies that promote gender equality in line with Sustainable Development Goal 5 (Anggadwita et al., 2025). Additionally, women face challenges such as media bias and market competition that persist, affecting confidence and growth, engagement, and credibility among women entrepreneurs, while also fostering community-building (Hoti, 2025), and other obstacles such as scarce resources, the ongoing need for new digital skills, digital stress, or even burnout as a result of internal and external expectations on online presence, and the upkeep and scanning of social media sites (Alhajri & Aloud, 2024). However, the adoption of social media is primarily associated with both non-technical and technical challenges (Alhakimi, & Albashiri, 2023). Non-technical barriers such as managerial attitudes, and technical barriers like cost and other practical considerations related to the nature of social media platforms (Alhakimi & Albashiri, 2023). The study of Olsson and Bernhard (2021) revealed the difficulties associated with digitization with women entrepreneurs, such as scarce resources, the ongoing need for new digital skills, digital stress or even burnout as a result of internal and external demands on online presence, social media platform upkeep, and scanning. In addition to this, Ughetto et al. (2020) reveal challenges faced by women entrepreneurs in developing countries, including limited digital access to capital, networks, digital skills, digital access and prevailing societal biases, while also illustrating opportunities through real-world cases.

In addition, social media platforms have emerged as vital tools for entrepreneurship, particularly among women in Pakistan. With limited opportunities in communication platforms like Facebook and Instagram have enabled women to launch and grow successful online businesses, gaining financial empowerment and social visibility (Khan et al., 2020). However, while much of the literature praises these advantages, limited research has systematically explored the specific challenges Pakistani women entrepreneurs face when utilizing social media for business purposes (Zahra & Mahmood, 2021). The few available studies mostly highlight general obstacles, such as cyber harassment, lack of digital literacy, conservative socio-cultural restrictions, inadequate family support, and absence of formal training programs (Soomro & Shah, 2022; Naz et al., 2023). However, these studies often lack in-depth empirical data, particularly in cities like Hyderabad, Sukkur, and rural Sindh, where the socio-cultural fabric significantly influences women's business activities via social media. Furthermore, there is a scarcity of gender-focused, Pakistan-specific empirical studies that classify these challenges based on age, education level, marital status, and urban vs. rural settings (Fatima & Qureshi, 2023). In addition to this, previous studies show that psychological stress and digital technological barriers, such as depression, women's empowerment and visibility issues, scarcity of pessimistic response of clients often affect women's active participation (Raza & Jamil, 2024; Shaikh & Malik, 2026). Moreover, the study of Hoti (2025) advises to institutional analysts of social media trainers for improving technical skills, which provides support to social media users in the digital ecosystem of entrepreneurship. According to Ughetto et al. (2020), the significance of digital empowerment, policies, which support the SDGs' goal 4, quality of education, 5 gender equality, and 8 decent work and economic growth.

Therefore, this research study focuses on exploring the impact of social media adoption among women entrepreneurs. To address the research gap, a study on social media adoption and entrepreneurial outcomes in the context of women in Hyderabad, Sindh, Pakistan has been conducted by extending the Technology Adoption Model (TAM).

Hypothesis and Conceptual Model Framework



Fred Davis (1989) created the ‘Technology Acceptance Model (TAM), which describes how people interact, utilize, and adapt technological systems’. This model states that two fundamental perceptions, perceived ease of use (PEOU) and perceived usefulness (PU), influence the user’s intention to adopt technology. In 1985, Davis referred to perceived usefulness, which technology users consider that technology enhance her/his performance of work. Furthermore, perceived usefulness (PU) and perceived ease of use (PEOU) show a significant association regarding the digital ecosystem as instructed by instructors (Park et al. 2014). In the contemporary digital entrepreneurship ecosystem, TAM has been an absolute corporate intention to use digital technology and work performance outcomes. The study introduced three constructs: Marketing and Customer Engagement (MCE), Empowerment and Visibility, Networking and Learning (NL), and Intention to use social media in spite of challenges and gender barriers. These variables analyse how female entrepreneurs use social media in the context of adoption, empowerment, and visibility, social networking, marketing, learning, and customers’ engagement. The dependent variable, Intention to Use social media (IU), represents the likelihood that women entrepreneurs would continue the use of social media platforms.

Hypotheses Development

Direct Relationships

H1: Perceived usefulness (PU) significantly influences empowerment and visibility (EV). (PU → EV).

When women entrepreneurs understand the benefits of social media uses, they would like to increase empowerment (self-confidence, participation in decision making), and visibility.

H2: Perceived ease of use (PEOU) significantly impacts the empowerment and visibility (EV). (PEOU → EV).

Women entrepreneurs develop more confidence by using social media, which is enhanced by perceived ease of use.

H3: Perceived usefulness significantly influences marketing and customers’ engagement (PU → MCE).

Women entrepreneurs find usefulness of social media tends to manage marketing and customer linkage.

H4: Perceived ease of use significantly influences networking and learning (PEOU → NL).

Women’s entrepreneurs link the networking and learning platforms because they perceive that the use of social media is very easy and beneficial.

H5: Empowerment and visibility significantly influence intention to use social media (EV → IU platforms).

Women entrepreneurs have skills in using social media, therefore, they are likely to keep continue the use of social media platform.

H6: Management and customers’ engagement significantly influence intention to use (MCE → IU).

Women entrepreneurs manage the work and lead the generation to keep growing the intention to use social media.

H7: Networking and learning significantly influence intention to use social media platforms. (NL → IU).

Social networking with content lead generation encourages continued social media platform usage.

Mediating Effects

H8: Perceived usefulness and empowerment, and visibility mediate the association with the intention to use social media for promotion of business. (PU → EV → IU).

H9: Management and customer’s engagement mediates the association between perceived usefulness and continuing the use of social media (PU → MCE → IU).

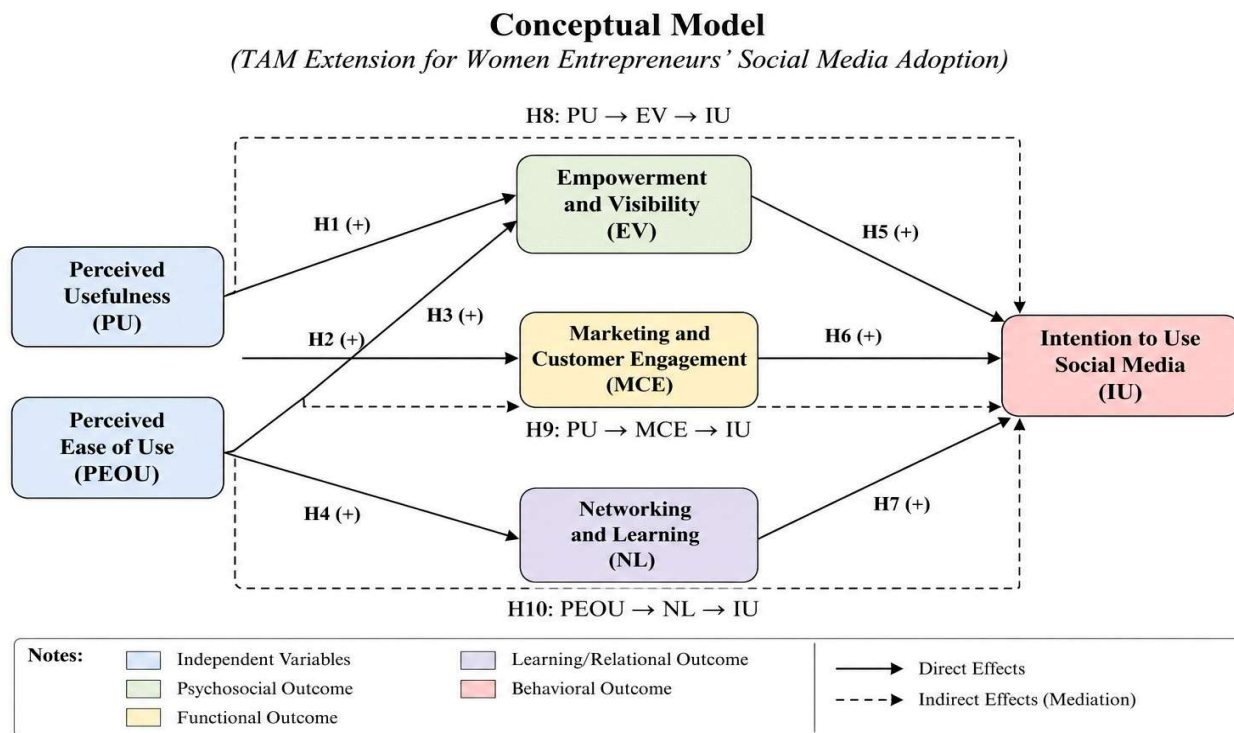
H10: Women entrepreneurs enhance the customer’s Networking, and business learning mediates the association between perceived ease of use and intention to use social media platforms. (PEOU → NL → IU).



Table 1
Constructs of the Study Model

Variables	Type	Description
Perceived Usefulness (PU)	Exogenous	Belief that using social media enhances business outcomes.
Perceived Ease of Use (PEOU)	Exogenous	Degree to which social media is seen as free of effort.
Empowerment & Visibility (EV)	Mediator	Sense of independence, self-worth, and public presence through social media.
Marketing & Customer Engagement (MCE)	Mediator	Use of social media for attracting, engaging, and retaining customers.
Networking & Learning (NL)	Mediator	Opportunities to build connections and gain business knowledge online.
Intention to Use SM (IU)	Endogenous	Willingness or plan to use social media for business purposes.

Figure 1
 Conceptual Model of the Study (TAM extended)



PU = Perceived Usefulness; PEOU = Perceived Ease of Use; EV = Empowerment and Visibility; MCE = Marketing and Customer Engagement; NL = Networking and Learning; IU = Intention to Use Social Media

Source: This study

2. Literature Review

Women Entrepreneurship in Pakistan: Context and Significance

Women's entrepreneurship is increasingly recognized as a vital contributor to economic growth, innovation, and social development. In Pakistan, however, young female participation in entrepreneurial activities remains comparatively low due to structural inequalities and socio-cultural constraints. Scholars have acknowledged that women entrepreneurs often face limited opportunities, inadequate financial resources, poor family and institutional support, restricted mobility, particularly in slum urban areas and rural areas of



Sindh (Shaikh et al., 2025; Soomro et al., 2023). Pakistani women entrepreneurs are basically engaged in small and medium enterprises (SME) and adopt available facilities within a conservative culture (Rizvi et al., 2023). The cultural constraints explore the substitute path, such as social media platforms, which support women's economic development (Rizvi et al., 2023).

Social Media as a Tool for Women Entrepreneurs

Scholars agreed that women have been skillful in managing their business by the usage of social media at home; such as autonomy at business, time, and offer flexibility, dealing with Niches (Arif, & Saeed, 2025; Aftab, et al., 2023; Rizvi, et al., 2023). Moreover, Pakistani female entrepreneurs' mini invest in small medium entrepreneurs and outreach to heterogeneous audiences by social media support (Aftab, et al., 2023). Additionally, Social media engagement significantly contributes with in a substantial proportion of women's income generation (Arif, & Saeed, 2025; Abdullah et al., 2022). Furthermore, social media strengthens the process of lead networking and learning opportunities by exposure to digital media marketing trends (Khalil & Warner, 2025; Aftab, et al., 2023). On the other hand, a gap was found in the adoption of social media usage among genders in the presence of cultural barriers (Abdullah et al., 2022; Shaikh & Hafeez, 2023).

Online platforms provide access to training, mentorship, and skill development opportunities, which are particularly valuable in regions where formal support systems are limited (Aftab, et al., 2023). Although the use of social media has significantly transformed entrepreneurial practices, especially for women, there remains a critical gap in understanding the unique challenges women entrepreneurs face while leveraging these platforms. Existing studies largely emphasize the benefits of social media, such as socio-economic impacts of social media among women in underrepresented regions emphasized to study in India (Singh et al., 2025). However, low-cost marketing, networking, and learning opportunities, empowerment, and visibility, and increased customer reach are also challenging for women (Mabkhot et al., 2020; Ali, & Anwar 2022).

Moreover, women entrepreneurs face gender-barriers, and thereby ignore how social, psychological, infrastructural, and cultural barriers disproportionately influence women in business progress. Scholars generalized across worldwide that in Indonesia, social media is supporting women who belong to small and medium entrepreneurs (SME's) during COVID-19 (Rahayu & Ellyanawati, 2023). Existing research on social media adoption by women entrepreneurs in Yemen focuses on perceived benefits and barriers but lacks qualitative depth, cross-regional comparison, and insights into long-term strategies on social media usage (Alhakimi, & Albashiri, 2023). While the study links social media behaviour with entrepreneurial intentions among young women (Emmanuel et al., 2022). However, study lacks cross-country validation, real-world outcome analysis, and consideration of contextual factors influencing entrepreneurship in emerging nations. Additionally, social media and internet use by rural women entrepreneurs in Kenya, lack broader regional applicability, in-depth analysis of barriers, and long-term impact assessment of digital adoption for sustainable development (Ongare, 2022).

While some recent studies have started to highlight these issues, they often lack empirical data, gender sensitivity analysis or region-specific focus, especially in South Asian or rural contexts where social norms significantly influence online women entrepreneurship (Ali & Anwar, 2022). However, barriers such as digital illiteracy, lack of technical support, cultural constraints, time management, cyber-security issues, social media management, and effective communication, are underexplored, particularly in developing countries like Pakistan (Raza et al., 2024; Sharma & Aggarwal, 2020; Khan et al., 2021).

Social Media and Challenges of Women Entrepreneurs

Women in developing regions often experience a digital divide characterized by limited internet access, lower device ownership, and insufficient digital literacy (Shaikh, 2025; Shaikh & Hj, 2024; Venkatesh & Davis, 2000). Even when access is available, gaps in platform know-how (analysis, advertising tools, cyber-security practices) can restrict effective utilization of social media for business growth.

In many countries, including Pakistan's culture restricted to women in term of gender roles, and family responsibilities effects women engagement and visibility (Khalil & Warner, 2025). Furthermore, women face difficulties to deal with male lead generation, self-promotion on facebook page, cyber harassment via social media platforms (Shaikh & Malak, 2026). Besides this, cultural constrains can limit consumers networking scope, learning opportunities and business expansion (Aftab et al., 2023).



3. Research Methodology

In the present study, a quantitative research methodology was employed to examine social media adoption and entrepreneurial outcomes among women entrepreneurs in Hyderabad, Sindh.

Research Design

A descriptive survey design was adopted because it is suitable for collecting standardized responses from a relatively large number of participants and for describing patterns, perceptions, and relationships among study variables.

Study Setting and Participants

The study focused on women entrepreneurs residing in different areas of Hyderabad (Sindh), representing a range of small and micro business activities operating through, or supported by, social media platforms.

Sampling Technique and Sample Size

A convenience sampling technique was used due to the practical challenges of accessing a comprehensive sampling frame of women entrepreneurs. A total of 191 women entrepreneurs participated in the study by completing an online survey.

Data Collection Instrument

Data were gathered using a semi-structured questionnaire primarily consisting of close-ended items to ensure consistency, reduce ambiguity, and facilitate statistical analysis. The questionnaire captured responses related to perceived usefulness, perceived ease of use, and the entrepreneurial outcome constructs included in the extended TAM model.

Measurement Scale

A five-point Likert scale was used to record participants' level of agreement with each statement (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree).

Data Analysis Procedures

Data were analysed using SPSS (version 26). The analysis included descriptive statistics to summarize respondent characteristics, reliability analysis to assess internal consistency, and multiple regression to test direct relationships among variables. Mediation effects were examined using the PROCESS Macro (Model 4) to evaluate indirect pathways within the proposed model.

4. Results and Discussions

The results of the study shows that average women entrepreneurs are young between 21–30 years old 105(54.7%), and 104(54.2%) graduated followed by post-graduated 47 (24.5%). Moreover, a large number (72.9%) of single women are well educated indicating startup of business. Majority of women use Instagram (24.0%), followed by WhatsApp (20.8%), alongside 21.9% using multiple platforms. Majority (88.5%), of respondents manage social media independently and spend 3 to 4 hours daily. Furthermore, (38.0%) of internet connectivity was the basic challenge of responders face daily, with limited access of internet (15.6%), and weak signals (34.9%) are the challenges of women entrepreneurs of Hyderabad. In the context of training, an average respondents chosen government-led programs (45.8%) because it offers free of cost opportunities; such as Benazir income support program (Refer Table 2).

Table 2

Demographic Profile

Characteristics		Frequency	Percent
Age	21-30	105	54.7
	31-40	42	21.9
	41-50 and above	44	22.9
Education	Matriculation	13	6.8
	Intermediate	27	14.1
	Graduated	104	54.2
	Post Graduated	47	24.5



Characteristics		Frequency	Percent
Marital Status	Single	140	72.9
	Married	42	21.9
	Divorced / Widow/Separated	9	4.7
Years of Business Experience	less than 1 year	82	42.93
	1 to 3 years	71	37.17
	4 to 6 years and more	38	18.90
Social Media Platform used	All	42	21.9
	Facebook	22	11.5
	Instagram	46	24.0
	TikTok	5	2.6
	WhatsApp	40	20.8
	YouTube	14	7.3
	Others	22	11.5
Social Media operated by myself	Yes	170	88.5
	No	17	8.9
	others	4	2.1
Time spent using social media	less than 2hours	63	32.8
	3 to 4 hours	78	40.6
	5 to 6 hours and more	50	25.10
Challenges in using social media	internet Access	30	15.6
	social media use	67	34.9
	weak signals of internet connection	73	38.0
	others	21	10.9
Type of training required	Government Training	88	45.8
	if other mention name	47	24.5
	NGO's Training	56	29.2

Source: This study

Table 3
Descriptive Statistics

Variables	N	Mean	Std. Deviation
PEOU	191	4.0563	.47894
PU	191	4.0497	.51042
EV	191	4.2644	.44068
MCE	191	4.0995	.51621
NL	191	3.8874	.56466
IU	191	3.9716	.55873

Table 3 depicts that all constructs of the study have relatively high mean scores over ($N = 191$) sample size, which shows optimistic responses. Empowerment and visibility (EV) has the highest mean ($M = 4.26$, $SD = 0.44$), followed by Management Customer Engagement (MCE) ($M = 4.10$, $SD = 0.52$), Perceived usefulness PU ($M = 4.05$, $SD = 0.51$) and Perceived Ease of Use ($M = 4.06$, $SD = 0.48$), and Intention to use IU also shows a high mean ($M = 3.97$, $SD = 0.56$), while Networking and Learning ($M = 3.89$, $SD = 0.56$).

Table 4
Reliability Statistics

Cronbach's Alpha	N of Items
.923	52

Source: This study



Table 4 reveal that the Cronbach's $\alpha = .92$ across 52 items of the study shows an ideal reliability and consistency in the constructs of items for measuring data, as recommended threshold of .70 by Lee, & Cronbach in 1951.

Hypotheses Testing Results

The results in Table 5 indicate that most hypothesized relationships are statistically significant. PU significantly predicts EV ($\beta = 0.49, p < .001$) and MCE ($\beta = 0.69, p < .001$), showing strong positive effects. PEOU also has significant positive effects on EV ($\beta = 0.14, p = .034$) and NL ($\beta = 0.20, p = .005$). (Refer Table 5). Regarding outcome variables, MCE ($\beta = 0.33, p < .001$) and NL ($\beta = 0.19, p = .008$) significantly influence IU. However, EV does not significantly predict IU ($\beta = 0.12, p = .149$), leading to the rejection of H5. Overall, all hypotheses except H5 are supported (see Table 5).

Source: This study

Table 6 presents the mediation analysis using PROCESS Model 4. The indirect effect of PU on IU through EV is significant ($\beta = 0.15, 95\% \text{ CI } [0.054, 0.247]$), indicating partial mediation. Similarly, PEOU influences IU via NL ($\beta = 0.07, 95\% \text{ CI } [0.011, 0.149]$), also showing partial mediation (Refer Table 6). In contrast, MCE fully mediates the relationship between PU and IU ($\beta = 0.29, 95\% \text{ CI } [0.156, 0.444]$), as the indirect effect is significant and stronger relative to other pathways (Refer Table 5 & 6).

Table 5

Direct Effects

Hypotheses	Path	β	p-value	Decision
H1	PU \rightarrow EV	0.489	0.000	Supported
H2	PEOU \rightarrow EV	0.144	0.034	Supported
H3	PU \rightarrow MCE	0.688	0.000	Supported
H4	PEOU \rightarrow NL	0.202	0.005	Supported
H5	EV \rightarrow IU	0.122	0.149	Not Supported
H6	MCE \rightarrow IU	0.328	0.000	Supported
H7	NL \rightarrow IU	0.186	0.008	Supported

Source: This study

Table 6

Mediation Effects (PROCESS Model 4)

Hypothesis	Path	Indirect Effect	CI Lower	CI Upper	Decision
H8	PU \rightarrow EV \rightarrow IU	0.149	0.054	0.247	Supported (Partial)
H9	PU \rightarrow MCE \rightarrow IU	0.293	0.156	0.444	Supported (Full)
H10	PEOU \rightarrow NL \rightarrow IU	0.074	0.011	0.149	Supported (Partial)

Source: This study

Predicting EV from PU and PEOU

Table 7

Regression Results (PU, PEOU \rightarrow EV)

Variable	B	SE	β	t	p
Constant	2.017	0.255	-	7.908	.000
PEOU	0.133	0.062	0.144	2.136	.034
PU	0.422	0.058	0.489	7.233	.000

Table 7 shows that the regression model predicting EV is significant, $F(2, 188) = 45.24, p < .001$, explaining 32.5% of the variance ($R^2 = .325, \text{Adj. } R^2 = .318$). Both PU ($\beta = .49, p < .001$) and PEOU ($\beta = .14, p = .034$) significantly and positively predict EV, with PU demonstrating a stronger effect.

Predicting MCE from PU

As shown in Table 8, PU significantly predicts MCE, $F(1, 189) = 170.10, p < .001$, accounting for 47.4% of the variance ($R^2 = .474, \text{Adj. } R^2 = .471$). PU has a strong positive effect on MCE ($\beta = .69, p < .001$).



Table 8

Regression Results (PU → MCE)

Variable	B	SE	β	t	p
Constant	1.281	0.218	-	5.879	.000
PU	0.696	0.053	0.688	13.042	.000

Note. $R^2 = 0.474$, Adj. $R^2 = 0.471$, $F = 170.104$, $p < .001$

Predicting NL from PEOU

Table 9 indicates that PEOU significantly predicts NL, $F(1, 189) = 8.07$, $p = .005$, but with relatively low explanatory power ($R^2 = .041$, Adj. $R^2 = .036$). The effect is positive and modest ($\beta = .20$, $p = .005$).

Note. $R^2 = 0.325$, Adj. $R^2 = 0.318$, $F = 45.240$, $p < .001$

Table 9

Regression Results (PEOU → NL)

Variable	B	SE	β	t	p
Constant	2.920	0.343	-	8.512	.000
PEOU	0.239	0.084	0.202	2.841	.005

Note. $R^2 = 0.041$, Adj. $R^2 = 0.036$, $F = 8.069$, $p = .005$

Table 10

Regression Results (EV, MCE, NL → IU)

Variable	B	SE	β	t	p
Constant	1.142	0.367	-	3.113	.002
EV	0.155	0.107	0.122	1.449	.149
MCE	0.355	0.097	0.328	3.665	.000
NL	0.184	0.068	0.186	2.685	.008

Note. $R^2 = 0.279$, Adj. $R^2 = 0.267$, $F = 24.077$, $p < .001$

Predicting IU from EV, MCE, and NL

Table 10 demonstrates that the model predicting IU is significant, $F(3, 187) = 24.08$, $p < .001$, explaining 27.9% of the variance ($R^2 = .279$, Adj. $R^2 = .267$). MCE ($\beta = .33$, $p < .001$) and NL ($\beta = .19$, $p = .008$) significantly predict IU, whereas EV does not ($\beta = .12$, $p = .149$). Overall, the results indicate that PU is a strong predictor of both EV and MCE, while MCE and NL are key determinants of IU, and EV shows no significant direct effect on IU. The regression analysis shows that Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) significantly predict Expected Value (EV) ($R^2 = .325$, $p < .001$), with PU having the stronger effect ($\beta = .49$).

Perceived Usefulness determines strongly predicts Management Consumer Engagement ($R^2 = .474$, $p < .001$), while Perceived Ease of use has significant effect on consumer networking and learning ($R^2 = .041$, $p = .005$). The results indicating that women entrepreneurs have strong perception to use social media and manage customers dealing. However, EV is insignificant ($p = .149$). In the context of intention to use social media in the model explains 27.9% of variance in IU ($R^2 = .279$, $p < .001$). Women entrepreneurs would like to continue the use of social media despite of multiple challenges. In addition to this, management consumers enhancement ($\beta = .33$, $p < .001$) and networking and learning ($\beta = .19$, $p = .008$) significantly influence Intention to use social media.

5. Conclusion and Recommendations

The results show that Networking and Learning (NL) and Marketing and Customer Engagement (MCE) exert a strong influence on women entrepreneurs' intention to use social media for business purposes. Overall, the findings confirm that Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) are the most influential antecedents in the extended TAM framework, shaping women entrepreneurs' behavioural outcomes both directly and indirectly. In particular, PU enhances entrepreneurial outcomes by strengthening women's ability to market products, maintain customer relationships, and create value through digital engagement, whereas PEOU supports sustained use by reducing the effort required to learn and manage social media tools and by enabling women to access networking and learning opportunities.



The study also indicates that women entrepreneurs in Hyderabad, Sindh largely adopt social media to operate home-based and micro-enterprises, including the sale of fabrics, cosmetics, handicrafts, and freelance services. These activities benefit from the low start-up cost of online selling, flexible working hours, and the ability to reach customers beyond immediate neighbourhood markets. At the same time, the findings suggest that women's business visibility and expansion are often shaped by contextual constraints, including conservative social norms and household responsibilities, which can limit physical mobility and face-to-face networking. In this way, social media functions not only as a marketing channel but also as an alternative space for business interaction, customer communication, and reputation-building.

Based on these results, the study offers several policy and practice recommendations. First, government and development stakeholders should prioritize gender-responsive digital entrepreneurship training that is practical, modular, and tailored to women's needs (e.g., content creation, platform analytics, paid advertising, online customer service, and e-commerce integration). Second, improving digital infrastructure particularly affordable internet access and reliable connectivity remains essential for enabling consistent platform use, especially for women operating from semi-urban and underserved localities. Third, institutions should address online safety and cyber-harassment risks by integrating cyber-safety awareness, reporting mechanisms, and privacy practices into training programs, as digital insecurity can discourage continued participation. Fourth, partnerships with microfinance institutions, incubators, and local business associations can support women's market access through mentorship, networking opportunities, and small-scale funding that complements social media-based selling. These recommendations align with the broader literature highlighting the need for institutional support and capacity-building to strengthen women's participation in digital entrepreneurship (Shaikh & Hj, 2025; Sunity Halder et al., 2025; Nahed & Elsherif, 2025).

Finally, the study highlights directions for future research. Because the present investigation relies on an online survey and convenience sampling, additional studies may strengthen generalizability by using probability-based sampling and by including women entrepreneurs from other districts of Sindh and diverse provinces of Pakistan. Moreover, future scholars are encouraged to apply mixed-method and qualitative approaches (e.g., in-depth interviews, focus groups, and digital ethnography) to capture deeper insights into how women negotiate socio-cultural restrictions, manage online identity, and respond to platform-related risks over time particularly in rural contexts where access and norms differ from urban settings. Cross-country comparisons in similar emerging economies may also provide stronger evidence on how contextual factors shape social media adoption and entrepreneurial outcomes.

6. Practical Implementation

The findings of this study are significant for both government and non-government organizations seeking to strengthen women's digital entrepreneurship in Pakistan. In practical terms, the results provide evidence to support the design of targeted strategies in digital media marketing, online customer relationship management, and platform-based business development for women entrepreneurs.

Relevant stakeholders (e.g., provincial SME departments, women development authorities, microfinance institutions, incubators, and NGO-led empowerment programs) may use these insights to plan structured training and mentorship initiatives that build competencies in content creation, branding, social media advertising, audience analytics, cyber-safety, and e-commerce integration. Moreover, the evidence can inform a coordinated medium-term (e.g., five-year) implementation plan that emphasizes community-based learning, peer networks, and local digital hubs to improve collaboration among women entrepreneurs, enhance market access, and support sustainable income generation.

By focusing on networking and learning opportunities, as well as marketing and customer engagement capabilities, such interventions are likely to increase women entrepreneurs' participation, strengthen business resilience, and improve long-term performance in the digital marketplace.

Contribution of Authors

All the authors participated in the ideation, development, and final approval of the manuscript, making significant contributions to the work reported.

Conflict of Interest Statement



The authors declare no conflicts of interest.

Funding Statement

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Informed Consent

Informed consent was obtained from all individual participants included in the study.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Data Availability

The datasets generated during and analysed during the current study are available from the corresponding author on reasonable request.

References

- Abdullah, S., Khalid, M., Khan, T. N., & Ali, M. (2022). Power of Social Media: Journey of Females towards Entrepreneurship. *Kashmir Economic Review*, 31(1).
- Aftab, J., Abrar, A., & Maroof, L. (2023). Identity construction of Pakistani female entrepreneurs in religious framework: An interplay of socio-cultural and religious factors. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 9(2), 198–221. <https://doi.org/10.1177/23939575221143664>
- Alhajri, A., & Aloud, M. (2024). Female digital entrepreneurship: A structured literature review. *International Journal of Entrepreneurial Behavior & Research*, 30(2–3), 369–397. <https://doi.org/10.1108/IJEBR-08-2022-0704>
- Alhakimi, W., & Albashiri, S. (2023). Social media adoption by women entrepreneurial small businesses. *Asia Pacific Journal of Innovation and Entrepreneurship*, 17(3–4), 158–175. <https://doi.org/10.1108/APJIE-01-2023-0015>
- Ali, R., & Anwar, M. (2022). The role of social media in women entrepreneurship: Opportunities and challenges in South Asia. *Asian Journal of Business and Management*.
- Anggadwita, U., Dana, L. P., Ramadani, V., Fayolle, A., Shiroka-Pula, J., & Prasetyo, A. (2025). *Gender in digital entrepreneurship*. Springer Nature. <https://doi.org/10.1007/978-981-99-8077-2>
- Arif, M., & Saeed, S. (2025). *Machine learning predictive analytics for social media enabled women's economic empowerment in Pakistan*.
- Chaker, H., & Zouaoui, S. (2022). Meeting the challenge of entrepreneurship with social media: The case of Tunisian women entrepreneurs. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 9(1), 33–61. <https://doi.org/10.1177/23939575221138439>
- Chakraborty, U., & Biswal, S. K. (2023). Impact of social media participation on female entrepreneurs towards their digital entrepreneurship intention and psychological empowerment. *Journal of Research in Marketing and Entrepreneurship*, 25(3), 374–392. <https://doi.org/10.1108/JRME-06-2022-0085>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. <https://doi.org/10.1007/BF02310555>
- Davis, F. D. (1985). *A technology acceptance model for empirically testing new end-user information systems: Theory and results* (Doctoral dissertation, Massachusetts Institute of Technology).
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Emmanuel, C. P., Qin, S., Hossain, S. F. A., & Hussain, K. (2022). Factors influencing social-media-based entrepreneurship prospect among female students in China. *Heliyon*, 8(12), e12041. <https://doi.org/10.1016/j.heliyon.2022.e12041>
- Fatima, N., & Qureshi, H. (2023). Socio-cultural barriers in digital business: Challenges for women entrepreneurs in Punjab and Sindh. *South Asian Journal of Business and Management Cases*, 12(1), 64–72. <https://doi.org/10.1177/22779779221142162>



- Hoti, T. D. (2025). The influence of digital platforms on women entrepreneurs in Eastern Europe: A focus on social media analytics. In U. Anggadwita et al. (Eds.), *Gender in digital entrepreneurship: Recent issues in emerging countries* (pp. 183–195). Springer Nature. https://doi.org/10.1007/978-981-99-8077-2_12
- Iqbal, T. (2020). Understanding the perception of women entrepreneurs and their adoption of social media: Strategies and challenges in the Kingdom of Saudi Arabia. *Journal of Entrepreneurship Education*, 23(5), 1–21.
- Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2018). Advances in social media research: Past, present and future. *Information Systems Frontiers*, 20(3), 531–558. <https://doi.org/10.1007/s10796-017-9810-y>
- Khalil, S., & Warner, A. (2025). *Invisible labor, visible barriers: The socioeconomic realities of women's work in Pakistan*.
- Khan, M. N., Yaseen, Z., & Alam, M. (2021). Barriers to e-commerce adoption by women entrepreneurs in Pakistan: A qualitative study. *Journal of Entrepreneurship in Emerging Economies*. <https://doi.org/10.1108/JEEE-07-2020-0250>
- Khan, S., Ahmed, M., & Waqar, S. (2020). Digital inclusion and barriers faced by women entrepreneurs in Pakistan. *Journal of Entrepreneurship and Business Innovation*, 7(1), 23–34. <https://doi.org/10.5296/jebi.v7i1.16534>
- Mabkhot, H. A., Shaari, H., & Salleh, S. M. (2020). Social media marketing for small and medium enterprises: A review of trends and challenges. *International Journal of Innovation, Creativity and Change*, 11(12), 593–613.
- Mallios, P., Zampetakis, L., & Moustakis, V. (2023). Social media impact on entrepreneurship intention: Lessons learned from business startupper. *Journal of Business and Entrepreneurship*, 32(2), 1–18.
- Milwood, P. A., & Maxwell, A. (2020). A boundary objects view of entrepreneurial ecosystems in tourism. *Journal of Hospitality and Tourism Management*, 44, 243–252. <https://doi.org/10.1016/j.jhtm.2020.06.008>
- Nahed Azab, & Mohamed Elsherif. (2025). Towards a framework for the adoption and use of information and communication technology for empowering women entrepreneurs: Case of Egypt. *Electronic Journal of Information Systems in Developing Countries*, 91(2), e70006. <https://doi.org/10.1002/isd2.70006>
- Naz, H., Bukhari, F., & Rehman, A. (2023). Online entrepreneurship and the digital gender gap: A study of women-led SMEs in Pakistan. *Journal of Gender and Technology*, 4(1), 15–30.
- Olsson, A. K., & Bernhard, I. (2021). Keeping up the pace of digitalization in small businesses—Women entrepreneurs' knowledge and use of social media. *International Journal of Entrepreneurial Behavior & Research*, 27(2), 378–396. <https://doi.org/10.1108/IJEBR-10-2019-0615>
- Ongare, R. M. (2022). Modelling utilization of the internet and social media platforms for sustainable development of women entrepreneurs of small businesses. *International Journal of Scientific Research in Science, Engineering and Technology*, 250–275. <https://doi.org/10.32628/IJSRSET229141>
- Park, N., Rhoads, M., Hou, J., & Lee, K. M. (2014). Understanding the acceptance of teleconferencing systems among employees: An extension of the technology acceptance model. *Computers in Human Behavior*, 39, 118–127. <https://doi.org/10.1016/j.chb.2014.05.048>
- Rahayu, N. S., & Ellyanawati, E. R. (2023). Women entrepreneurs' struggles during the COVID-19 pandemic and their use of social media. *Journal of Innovation and Entrepreneurship*, 12(1), 1–17. <https://doi.org/10.1186/s13731-023-00275-2>
- Raza, M., & Jamil, K. (2024). Psychosocial constraints of female-led digital businesses in Pakistan. *Pakistan Journal of Digital Economy*, 2(1), 45–58.
- Raza, S., Ahmed, W., & Iqbal, M. (2024). Digital entrepreneurship and social media challenges for women in rural Pakistan. *Technology in Society*, 78, 102614. <https://doi.org/10.1016/j.techsoc.2024.102614>
- Rizvi, S. A. A., Shah, S. J., Qureshi, M. A., Wasim, S., Aleemi, A. R., & Ali, M. (2023). Challenges and motivations for women entrepreneurs in the service sector of Pakistan. *Future Business Journal*, 9(1), 71. <https://doi.org/10.1186/s43093-023-00244-8>



- Shaikh, S., & Malak, A. (2026). A systematic review of digitalization and entrepreneurial performance. *Journal of Media Horizons*, 7(3), 431–449.
- Shaikh, S. S. (2025). The influence of social media literacy and challenges on youth small medium entrepreneurs in Sindh, Pakistan. *International Journal of Media and Information Literacy*, 10(1), 75–90. <https://doi.org/10.13187/ijmil.2025.1.75>
- Shaikh, S. S., & Hafeez, A. (2023). Social media's impact on academic performance of higher faculties during COVID-19 pandemic in Hyderabad, Sindh, Pakistan. *Media Education (Mediaobrazovanie)*, (3), 480–491. <https://doi.org/10.13187/me.2023.3.480>
- Shaikh, S. S., & Hj, J. A. (2024). Impact of digitalization on undergrads entrepreneurs performance in Sindh, Pakistan. *International Journal of Media and Information Literacy*, 9(1), 218–233. <https://doi.org/10.13187/ijmil.2024.1.218>
- Sharma, A., & Aggarwal, A. (2020). Women entrepreneurship and the digital divide: Issues in developing economies. *Journal of Business Research*, 112, 45–55. <https://doi.org/10.1016/j.jbusres.2019.10.043>
- Singh, V. V., Sharma, M. R., Singh, A., Singh, A., Waqar, M. A., Suryavanshi, R., & Das, M. K. (2025). Role of social media in empowering women entrepreneurs in India. *American Journal of Psychiatric Rehabilitation*, 28(1), 1016–1020.
- Soomro, M., Soomro, R. B., & Soomro, F. (2023). Female entrepreneurship: The comparative study of rural and semi-urban Sindh Province. *Journal of Development and Social Sciences*, 4(2), 189–203. [https://doi.org/10.47205/jdss.2023\(4-II\)18](https://doi.org/10.47205/jdss.2023(4-II)18)
- Soomro, T. R., & Shah, S. (2022). Exploring the digital challenges of female entrepreneurs in Sindh, Pakistan. *Sindh University Research Journal*, 54(3), 89–97.
- Sunity Halder, Hamid, A. B. A., & Huam, H. T. (2025). Analyzing the influence of social media on the entrepreneurial performance of women in developing country. *Malaysian Business Management Journal*, 4(1), 33–43. <https://doi.org/10.26480/mbmj.01.2025.33.43>
- Thompson-Whiteside, H., Turnbull, S., & Howe-Walsh, L. (2018). Developing an authentic personal brand using impression management behaviors: Exploring female entrepreneurs' experiences. *Qualitative Market Research: An International Journal*, 21(2), 166–181. <https://doi.org/10.1108/QMR-01-2017-0007>
- Ughetto, E., Rossi, M., Audretsch, D. B., & Lehmann, E. E. (2020). Female entrepreneurship in the digital era. *Small Business Economics*, 55(2), 305–312. <https://doi.org/10.1007/s11187-019-00298-8>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, 46(2), 186–204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Zahra, T., & Mahmood, R. (2021). Women entrepreneurship and digital platforms: A case of emerging markets in Pakistan. *Pakistan Journal of Social Sciences*, 41(2), 112–125.