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Psychological Determinants of Self-Efficacy in Women Entrepreneurs: Evidence from Herat

Yuki Sato[1]*, Hiroshi Tanaka[1], Kenji Mori[2], Rina Okabe[1], Takashi Ito[2]

[1]Department of Health Psychology, Graduate School of Medicine, University of Tokyo, Tokyo, Japan.
[2]Department of Psychosocial Healthcare Systems, Kyoto University, Kyoto, Japan.

***E-mail** ✉ yuki.sato@gmail.com

Abstract

This research examines the link between depression and self-efficacy in women entrepreneurs based in Herat, focusing especially on how self-esteem mediates this connection. Although starting and running a business can bring financial autonomy and opportunities for personal development, it also places women under considerable mental strain due to issues such as unstable income, traditional gender roles, and lack of adequate social networks. In total, 110 women entrepreneurs aged 20 to 45 years participated in the study via convenience sampling. Information was gathered using well-established questionnaires: the Beck Depression Inventory-II (BDI-II), the Coopersmith Self-Esteem Inventory (SEI), and the General Self-Efficacy Scale (GSE). The collected data were analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM). Results showed that depression had a negative influence on both self-esteem and self-efficacy. At the same time, self-esteem produced a strong positive effect on self-efficacy. Further analysis confirmed that self-esteem acted as a partial mediator in the relationship between depression and self-efficacy, accounting for a large share of the variation in self-efficacy ($R^2 = 0.49$). These outcomes emphasize the combined psychological difficulties confronting women entrepreneurs, where symptoms of depression weaken both their sense of competence and their sense of personal value, which in turn lowers their overall efficacy. The study indicates that building stronger self-esteem is a crucial route to reducing the negative consequences of depression and boosting resilience in entrepreneurial work. Practical suggestions include designing specific programs, such as cognitive-behavioral therapy sessions, workshops to improve self-esteem, and support groups for people in entrepreneurial roles. By dealing with depressive symptoms alongside self-esteem issues, these measures can enhance self-efficacy, promote better mental health among women, and help achieve lasting business success in developing economies.

Keywords: Self-Efficacy, Women, Herat, Self-esteem

Introduction

Entrepreneurship is widely viewed as an essential force behind productivity gains and economic advancement in today's societies [1]. Entrepreneurial efforts play a vital role in encouraging innovation, generating employment opportunities, and shaping a vibrant social environment within a dynamic economy. However, the rise in entrepreneurial activity, similar to other professions, brings both positive and negative aspects. Business owners frequently discover that, despite its rewards, this line of work ranks among the most stressful careers worldwide, and, on average, their income does not exceed that of regular salaried workers [1, 2]. Even so, most entrepreneurs report strong satisfaction with their lives and hold optimistic views of their jobs [1, 3].

Over the past few decades, entrepreneurship has drawn greater interest owing to its capacity to foster social progress. Entrepreneurs strive to create prosperous ventures by applying innovative ideas and creative solutions, and they also seek to improve competitiveness in the job market [4]. This issue is especially critical in developing economies, where people must balance

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family responsibilities, face gender discrimination, and cope with weak social support [5]. These obstacles often lead to mental strain, increasing the risk of depression and ongoing stress. Research findings have revealed that entrepreneurs commonly face high degrees of anxiety, isolation, and pressure in the early stages of establishing their businesses [6, 7]. Because mental health is an important element of human capital, it needs to receive focused attention in entrepreneurial settings, especially for women. Prior investigations have established that self-esteem, generalized self-efficacy, neuroticism, and locus of control together form a central psychological dimension connected to personal adaptation and mental health results [8]. Additional evidence indicates that self-esteem serves as an important mediator between psychological distress and levels of occupational or academic self-efficacy [9]. Furthermore, lower self-esteem has repeatedly been tied to more intense depressive symptoms and weaker self-efficacy, particularly in at-risk populations [10].

The World Health Organization [11] defines mental health not merely as the absence of illness but as a state of well-being in which people can realize their abilities, cope with normal life stresses, work productively, and make contributions to their community. Mental health and the study of mental disorders have received growing focus from scholars, who stress that mental well-being cannot be separated from physical health or daily behavior [12]. Studies show that women experience mental health conditions such as depression, anxiety, eating disorders, and post-traumatic stress disorder at significantly higher rates [13]. These conditions occur more often in women because of hormonal influences and various life events [14, 15]. Female business owners encounter notable psychological strain as they navigate male-dominated and highly competitive business settings. Although entrepreneurship can offer financial freedom, personal fulfillment, and greater self-respect, it also involves intense pressures, including financial instability and job insecurity [3, 7].

Among all mental disorders, depression stands out as one of the most widespread and impairing, disrupting social relationships, work performance, and everyday functioning. One of the key psychological factors linked to depression is self-efficacy, which refers to a person's confidence in their ability to handle and complete tasks [16]. Research has consistently found that low self-efficacy heightens the risk of depression among women, entrepreneurs, students, and employees [17, 18]. Individuals who feel powerless to overcome difficulties tend to develop stronger feelings of helplessness, pessimistic thinking, and eventually depressive symptoms. On the other hand, strong self-efficacy builds resilience, improves emotional regulation, boosts motivation, and helps guard against depression [19]. Programs designed to strengthen self-efficacy—such as cognitive-behavioral therapy, coping skills training, and supportive counseling—have proven effective in reducing depressive symptoms and supporting prevention efforts [20, 21]. This topic holds special importance for women entrepreneurs, who face overlapping professional and societal demands that elevate depression risk when robust self-efficacy is lacking.

Recent psychological research has highlighted self-esteem as a key mediating factor in the connection between self-efficacy and depression. Self-esteem, defined as the overall sense of personal worth, serves as a fundamental element of mental health and shapes how people cope, stay motivated, and interpret situations [22]. Studies confirm that higher self-esteem is associated with greater self-efficacy, as feelings of accomplishment strengthen one's sense of value [23]. Likewise, strong self-esteem offers protection against depression; individuals who view themselves as capable and worthy are less prone to hopelessness and negative thinking when facing setbacks [24, 25].

In light of the mounting psychological and social challenges experienced by women entrepreneurs in Herat, the core issue investigated here is whether depression lowers their self-efficacy levels and whether self-esteem serves as a mediator in this process. Hence, the chief aim of this study is to explore the direct impact of depression on self-efficacy and to determine the extent to which self-esteem mediates that relationship.

Materials and Methods

The study population consisted of women engaged in entrepreneurial activities in Herat during 2024. One hundred ten participants were selected through convenience sampling, given the restricted access to women entrepreneurs in the area. Although this method enabled quick, practical data gathering, it may limit how broadly the results can be applied. Participants had to be women currently involved in business ventures, aged 20 to 45 years, and prepared to give informed consent. Women who were not actively running a business, fell

outside the 20–45 years age bracket, or submitted incomplete or unreliable questionnaire answers were excluded. The demographic profile of the sample was as follows: 38 participants (34.5%) were aged 20–25 years, 45 participants (40.9%) were 26–30 years, 19 participants (17.3%) were 31–35 years, and 8 participants (7.3%) were 36–45 years old. In terms of education level, 21 participants (19.1%) had less than a bachelor's degree, 46 (41.8%) held a bachelor's degree, and 43 (39.1%) were undergraduates. Regarding the economic situation, 20 participants (18.2%) described their condition as good, 47 (42.7%) as middle, 10 (9.1%) as excellent, and 33 (30.0%) as poor. As for marital status, 37 participants (33.6%) were single, and 73 (66.4%) were married. Data were collected through face-to-face sessions, during which participants completed the questionnaires under guidance to ensure accuracy and full completion. Ethical clearance was obtained from the appropriate local bodies, and written informed consent was obtained from each participant. Three established measurement tools were employed to evaluate the main psychological variables. Beck Depression Inventory-II (BDI-II) is a 21-item self-report instrument that assesses the intensity of depressive symptoms using a 4-point Likert scale. It shows excellent internal consistency (Cronbach's alpha = 0.91), high test-retest reliability (r = 0.93), and robust convergent validity with other depression scales [26]. Coopersmith self-esteem inventory: This 25-item yes/no questionnaire measures overall self-esteem. It possesses acceptable internal consistency (Cronbach's alpha = 0.68–0.77), solid test-retest reliability (0.72–0.85), and well-documented concurrent validity [27]. General Self-Efficacy Scale: created by Jerusalem and Schwarzer, this 10-item, 4-point Likert scale evaluates people's confidence in their capacity to manage a wide range of difficulties. It demonstrates high internal consistency (Cronbach's alpha = 0.76–0.90), reliable test-retest reliability, and strong convergent validity with related constructs [28]. The data were processed with SmartPLS 4 software, which is particularly appropriate for Partial Least Squares Structural Equation Modeling (PLS-SEM).

Procedure

• Locating suitable women who run businesses.

• Getting voluntary agreement from each woman after full disclosure.

• Giving participants a concise description of what the research aimed to achieve.

• Distributing and collecting the survey forms at the location itself.

• Reviewing every submitted form to confirm nothing was missing or unclear.

• Transferring all responses into the SmartPLS 4 program.

• First, test the measurement model and then examine the structural model.

Justification for PLS-SEM: This technique was adopted primarily because the sample size was limited, the research model was largely exploratory, and some data deviated from normality.

Ethical approval

Given the present political climate in Afghanistan, where the Taliban holds power, no official bodies exist that can grant permission for research projects focused on women. Consequently, it was not possible to secure formal ethical clearance through any institutional review board.

Even so, the entire project adhered to the core ethical principles of the Declaration of Helsinki. Every woman gave her voluntary informed consent before joining. Full attention was paid to protecting each participant's privacy and personal security from start to finish.

Results and Discussion

Pearson correlation analysis **(Table 1)** uncovered very strong positive links between general self-esteem and family Self-esteem ($r = 0.93$, $P < 0.01$), Social Self-esteem ($r = 0.92$, $P < 0.01$), Professional/Scholastic Self-esteem ($r = 0.95$, $P < 0.01$), and the Lie Scale ($r = 0.92$, $P < 0.01$). The Beck Depression Inventory (BDI) showed clear negative associations with each self-esteem subscale (r values ranging from −0.49 to −0.57, all $P < 0.01$). The Coopersmith Self-Esteem Inventory (SEI) had moderate to high positive associations with the different self-esteem subscales (ranging from $r = 0.54$ to $r = 0.58$, $P < 0.01$). In addition, the general self-efficacy scale showed exceptionally strong positive relationships with all dimensions of self-esteem, reaching its peak with general self-esteem ($r = 0.99$, $P < 0.01$).

Table 1. Pearson correlation matrix among study variables (n = 110).

Construct	8	7	6	5	4	3	2	1
1. Overall self-esteem	0.993	0.579	−0.558	0.918	0.950	0.921	0.928	1
2. Family-related self-esteem	0.955	0.540	−0.485	0.892	0.912	0.886	1	0.928
3. Social domain self-esteem	0.945	0.545	−0.567	0.876	0.881	1	0.886	0.921
4. Academic/professional self-esteem	0.966	0.567	−0.526	0.903	1	0.881	0.912	0.950
5. Response validity (lie) scale	0.928	0.562	−0.526	1	0.903	0.876	0.892	0.918
6. Depression score (BDI)	−0.556	−0.519	1	−0.526	−0.526	−0.567	−0.485	−0.558
7. Composite self-esteem index	0.580	1	−0.519	0.562	0.567	0.545	0.540	0.579
8. Self-efficacy measure	1	0.580	−0.556	0.928	0.966	0.945	0.955	0.993

Descriptive statistics for all measured variables are shown in **Table 2**. The sample included 110 complete cases with no missing values. Average scores varied from a low of 4.19 on the Lie Scale to a high of 30.16 on the Beck Depression Inventory (BDI). Standard deviations ranged from 2.82 for social self-esteem to 17.87 for the General Self-Efficacy Scale, indicating wide differences in responses. Skewness figures ranged from −0.17 to 0.156, while kurtosis values ranged from −1.95 to −0.72. These figures remained within normal ranges and suggested that the data were roughly normally distributed. When examining depression levels, only 0.9% of the women showed no signs of depression, 9.1% had mild symptoms, 15.5% needed professional advice, 29.1% suffered from moderate depression, 16.4% faced relatively severe depression, and another 29.1% reached the threshold for clinical or severe depression. Overall, the sample displayed a broad range of depressive experiences.

Table 2. Descriptive statistics for study variables (n = 110).

Measure	Kurtosis value	Skewness coefficient	Standard deviation (SD)	Average (mean)	Sample size (N)
Overall self-esteem	−1.893	−0.137	9.46	13.60	110
Family-based self-esteem	−1.724	−0.131	3.00	4.20	110
Social self-esteem	−1.614	−0.099	2.82	4.34	110
Academic/professional self-esteem	−1.751	−0.170	3.04	4.28	110
Lie/validity scale	−1.672	−0.168	3.02	4.19	110
Beck depression inventory (BDI)	−1.493	0.122	11.43	30.16	110
Self-esteem inventory (SEI)	−0.724	0.156	4.40	25.51	110
Efficacy index (EID)	−1.950	−0.141	17.87	26.43	110

This investigation used partial least squares structural equation modeling (PLS-SEM) to explore how depression relates to self-efficacy while treating self-esteem as the intervening factor. PLS-SEM was preferred because it performs well with smaller groups of participants and does not require strict assumptions about data distribution [29]. The tested framework positioned depression as the main predictor, self-esteem as the linking mechanism, and self-efficacy as the outcome. The analysis specifically checked whether self-esteem transmitted an indirect influence from depression to self-efficacy. The evaluation of the measurement model confirmed acceptable levels of reliability and validity for the constructs. All Cronbach's alphas were above 0.8, indicating strong internal consistency. Composite reliability measures (rho_a and rho_c) stayed above 0.7 across every construct. Convergent validity held for self-esteem (AVE = 0.935) and self-efficacy (AVE = 0.318), while depression produced a lower AVE of 0.244. Although this lower value calls for careful reading, it is still reasonable in an exploratory setting [29]. Discriminant validity was confirmed using both the

Fornell–Larcker rule and HTMT ratios, with all pairs < 0.85 except for the closely related subdimensions of self-esteem, which is expected given their conceptual similarity. The overall model demonstrated reasonable fit: SRMR = 0.077, d_ULS = 3.712, d_G = 1.277, Chi-square = 670.365, and NFI = 0.656. Even though the NFI fell slightly below the usual 0.90 standard, the SRMR and other indicators indicate that the model adequately captures the patterns in the observed data [30].

Structural model results

Analysis of the structural model indicated that depression produced a clear negative direct influence on self-efficacy (β = −0.315, t = 2.881, P = 0.004) and exerted a pronounced negative influence on self-esteem (β = −0.571, t = 8.119, P < 0.001). Self-esteem then showed a positive effect on self-efficacy (β = 0.471, t = 4.595, P < 0.001). These patterns confirm that self-esteem functions as a partial mediator between depression and self-efficacy.

Altogether, the model accounted for 32.6% of the variation in self-esteem (R^2 = 0.326, adjusted R^2 = 0.319) and 49.0% of the variation in self-efficacy (R^2 = 0.490, adjusted R^2 = 0.481). The Stone–Geisser Q^2 statistics demonstrated predictive relevance for both self-esteem (Q^2 = 0.296) and self-efficacy (Q^2 = 0.141). As anticipated for an exogenous variable, depression recorded no predictive relevance (Q^2 = 0.000) [31, 32].

In summary, the outcomes highlight self-esteem's vital role in transmitting the effects of depressive symptoms onto self-efficacy. The observed inverse relationships between depression and the two variables of self-esteem and self-efficacy match previous research showing that stronger depressive symptoms tend to undermine personal confidence and feelings of self-worth [16, 33]. These results point to the value of targeted efforts that reduce depressive symptoms while simultaneously building self-esteem. Such strategies seem particularly promising for raising self-efficacy levels among women entrepreneurs who must navigate numerous professional and societal obstacles **(Figure 1)**.

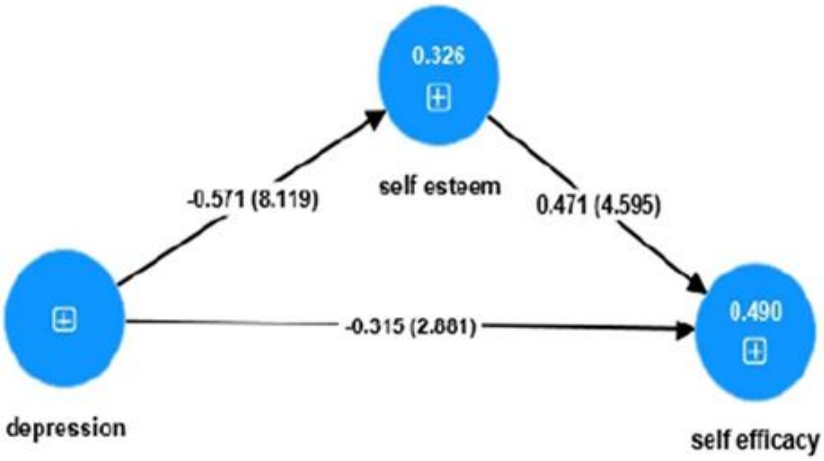

Figure 1. Conceptual model illustrating the direct effect of depression on self-efficacy and the mediating role of self-esteem among women entrepreneurs.

Tables 3–6 display the reliability and validity metrics for the constructs examined in this investigation. Cronbach's alpha coefficients fell between 0.806 and 0.977, demonstrating solid internal consistency for every construct. Cronbach's alpha assesses the degree to which the items belonging to a single construct remain consistent with one another, and figures exceeding 0.70 are usually regarded as adequate [34]. Additionally, composite reliability measures (rho_a and rho_c) were computed for each construct. These serve as supplementary indicators of internal consistency that incorporate item loadings. Rho_a provides a more precise reliability estimate from the PLS algorithm, while rho_c reflects the standard composite reliability approach commonly used in structural equation modeling. Every construct surpassed the 0.70 benchmark, verifying reliable measurement [35].

Average variance extracted (AVE) was used to assess convergent validity, representing the proportion of variance in the observed items accounted for by the

underlying construct. AVE values greater than 0.50 are generally viewed as satisfactory. In the present research, AVEs were acceptable for self-esteem (0.935) and self-efficacy (0.318), yet depression yielded a notably lower AVE (0.244), suggesting caution in interpreting its convergent validity. On the whole, the reliability and validity assessments suggest that the measurement model holds up reasonably well, although the depression construct merits closer examination given its modest AVE.

Convergent validity, gauged via average variance extracted (AVE), appeared robust for self-esteem but comparatively modest for depression and self-efficacy. A reduced AVE does not automatically signal that a construct is flawed; it may instead arise from the multifaceted and layered character of the variable, specific cultural or contextual elements within the participant group, or constraints inherent in the selected assessment tools. Within this study, the lower AVE values observed for depression and self-efficacy most likely stem from the distinctive ways these concepts express themselves among entrepreneurial women in Herat, influenced by cultural, linguistic, and situational considerations. Importantly, the composite reliability indices remained within acceptable ranges, thereby supporting the overall consistency of the constructs even when AVEs were lower. This combination permits meaningful interpretation of the findings in an exploratory research setting.

Table 3. Reliability and validity of constructs.

Latent variable	Average variance extracted (AVE)	Composite reliability (ρc)	Composite reliability (ρa)	Cronbach's alpha coefficient
Depressive symptoms	0.244	0.869	0.85	0.843
Perceived self-efficacy	0.318	0.676	0.786	0.43
Global self-esteem	0.935	0.983	0.978	0.977

Table 4. Indicator loading and VIF values (Loading + VIF).

Observed indicators	Self-esteem factor	Self-efficacy factor	Depression factor
Depression		1,000	1,497
Self-efficacy			
Self-esteem			1,497
BDI1	−0.107	−0.231	0.409
BDI10	−0.318	−0.371	0.559
BDI11	−0.254	−0.285	0.396
BDI12	−0.335	−0.32	0.473
BDI13	−0.359	−0.288	0.563
BDI14	−0.259	−0.418	0.502
BDI15	−0.115	−0.199	0.412
BDI16	−0.29	−0.232	0.452
BDI17	−0.282	−0.268	0.554
BDI18	−0.372	−0.45	0.631
BDI19	−0.402	−0.331	0.613
BDI2	−0.545	−0.573	0.963
BDI20	−0.33	−0.325	0.523
BDI21	−0.359	−0.239	0.527
BDI3	−0.226	−0.301	0.478
BDI4	−0.23	−0.326	0.527
BDI5	−0.248	−0.173	0.45
BDI6	−0.255	−0.308	0.453
BDI7	−0.175	−0.175	0.393
BDI8	−0.245	−0.178	0.449

BDI9	−0.35	−0.246	0.466
EID1	0.413	0.67	−0.413
EID10	0.533	0.78	−0.536
EID11	0.449	0.708	−0.355
EID12	0.463	0.791	−0.451
EID13	0.462	0.712	−0.472
EID14	0.403	0.599	−0.345
EID15	0.513	0.717	−0.325
EID16	0.408	0.66	−0.348
EID17	0.565	0.834	−0.52
EID18	0.519	0.807	−0.457
EID19	0.593	0.744	−0.538
EID2	0.456	0.694	−0.404
EID20	0.471	0.795	−0.455
EID21	0.508	0.759	−0.508
EID22	0.506	0.809	−0.38
EID23	0.439	0.704	−0.322
EID24	0.342	0.605	−0.306
EID25	0.517	0.822	−0.457
EID26	0.48	0.789	−0.486
EID27	0.502	0.725	−0.465
EID28	0.363	0.66	−0.334
EID29	0.464	0.731	−0.354
EID3	0.369	0.69	−0.357
EID30	0.42	0.702	−0.407
EID31	0.406	0.719	−0.398
EID32	0.459	0.726	−0.419
EID33	0.52	0.718	−0.442
EID34	0.543	0.668	−0.418
EID35	0.499	0.821	−0.457
EID36	0.492	0.753	−0.486
EID37	0.478	0.748	−0.399
EID38	0.478	0.7	−0.468
EID39	0.422	0.563	−0.33
EID4	0.487	0.681	−0.368
EID40	0.45	0.675	−0.456
EID41	0.564	0.719	−0.496
EID42	0.542	0.816	−0.545
EID43	0.512	0.715	−0.506
EID44	0.324	0.556	−0.29
EID45	0.38	0.625	−0.336
EID46	0.381	0.643	−0.376
EID47	0.419	0.686	−0.388
EID48	0.512	0.653	−0.423
EID49	0.404	0.573	−0.296
EID5	0.515	0.674	−0.55
EID50	0.368	0.622	−0.289
EID51	0.491	0.697	−0.43
EID52	0.455	0.766	−0.403

EID53	0.499	0.735	−0.414
EID54	0.405	0.723	−0.358
EID55	0.491	0.741	−0.424
EID56	0.576	0.824	−0.493
EID57	0.45	0.661	−0.331
EID58	0.509	0.75	−0.417
EID6	0.515	0.783	−0.461
EID7	0.515	0.835	−0.455
EID8	0.436	0.648	−0.465
EID9	0.498	0.677	−0.459
SEI1	−0.87	−0.601	0.494
SEI10	0.433	0.209	−0.144
SEI2	0.58	0.401	−0.225
SEI3	0.593	0.261	−0.4
SEI4	0.525	0.381	−0.276
SEI5	0.422	0.298	−0.268
SEI6	0.472	0.25	−0.286
SEI7	0.546	0.395	−0.393
SEI8	0.559	0.392	−0.369
SEI9	0.512	0.381	−0.257

Table 5. Effect size (f^2) for structural path (f^2 for depression → SE, depression → ES → efficacy).

Path	Self-esteem	Self-efficacy	Depression
Depression	0.497	0.135	
Self-efficacy			
Self-esteem		0.307	

Table 6. Bootstrapped confidence intervals (95%) for structural path (CI lower-upper limits).

Structural relationship	Upper bound (97.50%)	Lower bound (2.50%)	Mean estimate (M)	Original estimate (O)
Depression → Self-efficacy	−0.104	−0.517	−0.32	−0.316
Depression → Self-esteem	−0.486	−0.729	−0.602	−0.576
Self-esteem → Self-efficacy	0.662	0.288	0.484	0.478

Table 7 summarizes the structural path coefficients, t-values, and levels of statistical significance for the proposed links. The findings reveal that depression exerts a significant negative impact on both self-esteem and self-efficacy. In addition, self-esteem generates a significant positive impact on self-efficacy. Collectively, these patterns substantiate the mediating function of self-esteem in the relationship between depression and self-efficacy.

Table 7. Structural path analysis results.

Model pathway	Significance level (p-value)	t statistic	Standardized coefficient (β)
Depression → Self-efficacy	0.004	2.881	−0.315
Depression → Self-esteem	0.000	8.119	−0.571
Self-Esteem → Self-efficacy	0.000	4.595	0.471

This research explored the connections between depression and self-efficacy among women running businesses, with special focus on the mediating function of self-esteem. Recent PLS-SEM results showed clear negative direct impacts of depression on both self-esteem and self-efficacy, along with a meaningful indirect impact of depression on self-efficacy via self-esteem. These outcomes establish self-esteem as a partial mediator within the framework. Aligning with existing studies [24, 33], elevated depression levels corresponded to reduced self-esteem, which subsequently lowered self-efficacy. While certain previous investigations proposed that depression could sometimes spark self-reflection or helpful coping methods [35], the current evidence reveals that, for this group of entrepreneurial women, depression reliably weakens both self-esteem and self-efficacy. A likely reason lies in the combined weight of job-related pressures, societal demands, and gender-related obstacles typical in entrepreneurship, which appear to amplify the harmful mental effects of depressive symptoms.

The measurement model displayed solid reliability and validity overall. Cronbach's alpha coefficients spanned from 0.806 to 0.977, pointing to strong internal consistency. Both composite reliability measures (rho_a and rho_c) stayed above the 0.70 cutoff, confirming the dependability of the constructs. Although rho_a and rho_c resemble Cronbach's alpha, they are better suited to PLS-SEM because they incorporate the actual item loadings. Convergent validity proved strong for self-esteem (AVE = 0.935) and reasonable for self-efficacy (AVE = 0.318). However, depression's AVE (0.244) fell short of conventional standards, advising careful interpretation of any depression-linked outcomes. Discriminant validity, as assessed by the Fornell–Larcker and HTMT criteria, supported the distinctiveness of the constructs.

From a practical perspective, the findings underscore the value of targeted mental health support for women entrepreneurs. Suggested approaches include workshops to boost self-esteem, training activities that create opportunities for mastery, cognitive-behavioral techniques to manage depressive symptoms, and specially designed peer-support networks tailored to business settings. These programs can enhance mental well-being, boost self-efficacy, and ultimately contribute to stronger business results and long-term viability.

Nevertheless, certain limitations must be noted. The cross-sectional approach prevents drawing firm conclusions about cause and effect. Convenience sampling, which relies on readily available individuals rather than random selection, may introduce selection bias and limit the extent to which the results can be generalized. Cultural and language aspects unique to Herat could have influenced participants' responses, especially given the reliance on self-reports. Moreover, the modest AVE for depression suggests possible measurement shortcomings that could weaken conclusions about this variable.

Future studies would benefit from longitudinal designs, larger and more diverse participant groups, measures adjusted for local culture, and the inclusion of additional mediating or moderating factors, such as social support, coping methods, or years of entrepreneurial involvement.

Conclusion

This work adds fresh empirical support to understanding the mental processes that influence women in business. It confirms the partial mediating position of self-esteem between depression and self-efficacy. It emphasizes the importance of thoughtfully planned programs that tackle both depressive symptoms and self-esteem issues. The outcomes offer useful directions for advancing mental health and strengthening women entrepreneurs, with relevance for both personal well-being and professional achievement.

Limitations

Several limitations need to be recognized. First, the modest AVE for depression could stem from cultural and language-related elements that shape how items are understood. Second, reliance on convenience sampling reduces the extent to which findings can be generalized. Third, socio-political conditions in Herat, such as restrictions on male researchers engaging with female business owners in their workplaces, narrowed access to certain individuals and may have affected the makeup of the sample. In addition, the cross-sectional nature of the data rules out causal claims. Cultural and linguistic features specific to Herat might have affected participants' responses, especially in the self-report format. Future investigations should explore longitudinal methods, larger and more varied samples, instruments adapted to the local context, and the examination of extra mediators or moderators, including social support, coping techniques, or business experience. The reliance on self-report tools may also have introduced response bias from participants.

Practical implications

From a practical perspective, the findings highlight the need for targeted mental health initiatives for women business owners. Suggested actions include workshops focused on building self-esteem, practical training to build a sense of mastery, cognitive-behavioral approaches to ease depressive symptoms, and peer-support circles tailored to the realities of entrepreneurship. These efforts can boost overall psychological health, improve self-efficacy, and, in turn, help sustain and grow business success. Dealing with both depressive symptoms and self-esteem together can increase resilience and enable women entrepreneurs to handle better the professional and social hurdles they face.

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