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Entrepreneurial Self-Efficacy, Resilience, and Sustainable Business Practices Among Micro and Small Women Entrepreneurs in a Fragile Economy

Wafaa Jamil Sabah ^{1,*} and Feyza Bhatti ^{1,2} 

¹ Faculty of Business, Girne American University, Karimi Campus, Mersin 10, Kyrenia 99300, North Cyprus, Turkey

² Center for Gender Studies, Girne American University, Karimi Campus, Mersin 10, Kyrenia 99300, North Cyprus, Turkey

* Correspondence: w.sabbah@unrwa.org

Abstract

This study examines the associations among entrepreneurial self-efficacy, entrepreneurial resilience, financial constraints, and sustainable business practices among micro and small women entrepreneurs in the West Bank, Palestine. Drawing on Social Cognitive Theory and Conservation of Resources Theory, a moderated mediation model is proposed and explored in which entrepreneurial resilience mediates the relationship between entrepreneurial self-efficacy and sustainable business practices, while financial constraints moderate this indirect pathway. Survey data were collected from 282 micro and small women entrepreneurs through a purposive stratified sample facilitated by microfinance institution and NGO networks, and the model was assessed using partial least squares structural equation modeling via SmartPLS 4. The findings indicate that entrepreneurial self-efficacy is positively associated with sustainable business practices both directly and indirectly through entrepreneurial resilience. Financial constraints significantly weaken the resilience-to-practices pathway, and the moderated mediation analysis reveals that the indirect association diminishes as financial constraints intensify. These findings contribute to sustainable entrepreneurship theory by identifying the sequential psychological pathway through which self-efficacy translates into responsible business conduct and by establishing material resource scarcity as a boundary condition of that pathway in fragile economy contexts.

Keywords: entrepreneurial self-efficacy; entrepreneurial resilience; sustainable business practices; financial constraints; moderated mediation; micro and small entrepreneurs; women entrepreneurship; fragile economies; Palestine



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1. Introduction

Sustainable entrepreneurship has emerged as a critical pathway for achieving inclusive economic development, particularly in fragile and conflict-affected economies where conventional growth mechanisms are severely constrained [1]. Among the most vulnerable yet economically vital actors in such contexts are women entrepreneurs, who navigate a complex web of institutional barriers, resource scarcity, and sociocultural pressures while simultaneously striving to maintain viable and responsible business operations [2,3]. In micro and small business settings, sustainable business practices are not limited to formal environmental strategies; rather, they often involve practical and resource-sensitive

actions such as reducing waste, conserving energy and water, relying on local suppliers, treating workers fairly, supporting household and community welfare, and maintaining business continuity under uncertain conditions [4,5]. Understanding what enables these entrepreneurs to adopt and sustain responsible business practices under such conditions represents not only a theoretically significant question but also one with profound policy implications for fragile economies worldwide.

Despite growing scholarly interest in sustainable entrepreneurship, three related gaps remain insufficiently addressed in the existing literature. First, much of the sustainable entrepreneurship literature has examined opportunity recognition, venture performance, or sustainability orientation in relatively stable institutional settings, while considerably less attention has been directed toward how micro and small entrepreneurs enact sustainable practices under chronic resource scarcity and prolonged conflict [6,7]. Second, research on fragile and conflict-affected economies has largely focused on institutional barriers, financial exclusion, and survival constraints, while giving limited attention to the psychological mechanisms through which entrepreneurs continue to pursue socially, environmentally, and economically responsible conduct when material resources are scarce [8,9]. Third, although women entrepreneurs are widely recognized as important actors in sustainable and inclusive development, limited empirical work examines how psychological resources such as self-efficacy and resilience operate specifically among women micro and small entrepreneurs in conflict-affected contexts, particularly when financial constraints restrict the practical enactment of responsible business practices [10,11]. These three gaps jointly motivate the present study.

Palestine presents a uniquely compelling empirical setting for examining these questions. Decades of political conflict, economic blockade, restricted market access, and institutional fragility have produced one of the most challenging entrepreneurial environments in the world [12]. Palestinian women entrepreneurs, many of whom operate within the informal sector, face compounded disadvantages including limited access to formal financial services, constrained mobility, and deeply embedded social norms that restrict their economic participation [13]. Despite Palestine's ratification of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 2014, women's labour-force participation has remained largely stagnant, fluctuating between 16 and 20 percent over the past fifteen years, constrained by weak institutional enforcement capacity, fragmented coordination, and employer practices that systematically limit women's economic engagement [14]. These constraints are especially consequential for women micro and small entrepreneurs because their businesses often depend on personal savings, family labor, informal markets, and short-term cash flow rather than stable institutional support [15]. Yet despite these formidable obstacles, a significant number of Palestinian women continue to build and sustain small businesses, often demonstrating remarkable adaptive capacity and a commitment to responsible business conduct [16,17]. This makes Palestine more than a difficult empirical context; it represents a theoretically meaningful setting in which psychological agency, resource scarcity, gendered constraints, and sustainability-oriented behavior intersect under conditions of prolonged institutional uncertainty [8].

The Palestinian context differs from other fragile or developing settings in ways that are theoretically important. Women entrepreneurs in Lebanon, Syria, Afghanistan, Jordan, and selected fragile African economies such as Ethiopia and Ghana similarly face financial exclusion, institutional weakness, and gendered barriers to entrepreneurship [6,18–20]. However, the Palestinian case combines these pressures with prolonged movement restrictions, fragmented and blockaded markets, recurring political disruption, and an almost complete dependence on informal and micro-scale enterprise activity as the primary liveli-

hood mechanism. These structural features mean that financial constraints are not episodic shocks but chronic operating conditions [8], and that psychological resources such as resilience may be both more necessary and more easily depleted than in comparable settings. Understanding whether and how psychological resources are associated with sustainable business conduct under these specific conditions therefore offers theoretically distinct and potentially transferable insights for other fragile economies [21], while acknowledging that the strength of these associations may vary according to institutional support, mobility conditions, financial infrastructure, and prevailing gender norms [22].

Recent scholarship confirms the growing need to understand micro and small business continuity and sustainability in fragile settings from multiple angles. For example, Alshebami [23] demonstrated that access to cashless mobile technology, cash-flow management skills, and technology-related experience are associated with enterprise continuity among micro and small businesses in fragile contexts, confirming that continuity and sustainability in such settings depend on both material capabilities and enabling resources. However, this digital finance perspective does not explain how women entrepreneurs' psychological resources are associated with responsible business practices, nor does it account for the boundary conditions under which resilience may fail to translate into sustainable conduct when financial constraints are severe [23]. The present study positions itself as complementary to this line of inquiry by foregrounding the psychological and material mechanisms that shape sustainability-oriented behavior among women micro and small entrepreneurs.

This study addresses these gaps by examining the associations among entrepreneurial self-efficacy, entrepreneurial resilience, and financial constraints in shaping sustainable business practices among women micro and small entrepreneurs in the West Bank, Palestine. Drawing on Social Cognitive Theory [24,25] and Conservation of Resources Theory [26,27], this study proposes and explores an association-based moderated mediation framework in which entrepreneurial self-efficacy is associated with sustainable business practices both directly and indirectly through entrepreneurial resilience, with financial constraints conditioning the resilience-to-practices pathway. Social Cognitive Theory provides the theoretical basis for understanding how self-efficacy reflects entrepreneurial agency, adaptive confidence, and resilience-building capacity, whereas Conservation of Resources Theory explains why financial scarcity may restrict the translation of resilience into sustainability-oriented behavior by depleting the material prerequisites for responsible conduct [28–30]. The theoretical novelty of the integration lies in specifying that psychological resources are not automatically enacted as sustainable practices; rather, their behavioral translation is conditioned by the material resource environment in which entrepreneurs operate. Given the cross-sectional and single-source nature of the data, this study does not claim causal relationships; instead, it examines theoretically grounded associations in an under-researched fragile economy setting and is therefore positioned as an exploratory, association-based inquiry rather than a confirmatory causal study. Accordingly, the study is guided by the following research questions:

RQ1: *How is entrepreneurial self-efficacy associated with sustainable business practices among women micro and small entrepreneurs in the West Bank, Palestine?*

RQ2: *Does entrepreneurial resilience explain the association between entrepreneurial self-efficacy and sustainable business practices?*

RQ3: *Do financial constraints weaken the association between entrepreneurial resilience and sustainable business practices, as well as the indirect pathway linking entrepreneurial self-efficacy to sustainable business practices through resilience?*

The study makes several important contributions to the literature. First, it advances our understanding of sustainable entrepreneurship by identifying entrepreneurial resilience as

a psychological mechanism associated with the translation of self-efficacy into responsible business conduct. While prior research has examined self-efficacy as a predictor of entrepreneurial intentions and performance [31–34], its association with sustainable business practices operating through the mediating role of resilience remains theoretically underdeveloped, particularly among women micro and small entrepreneurs in fragile economies. Second, the study sharpens the theoretical integration of Social Cognitive Theory and Conservation of Resources Theory by articulating why both frameworks are necessary and what their combination produces beyond existing self-efficacy–resilience–performance models. Social Cognitive Theory captures entrepreneurial agency and adaptive capability, while Conservation of Resources Theory specifies the material boundary conditions under which those psychological capabilities can be enacted. Together, they generate a conditional process logic: psychological resources build resilience, but resilience is associated with sustainable practices only when financial constraints are sufficiently manageable to permit responsible business conduct. Third, the study contributes empirical evidence from a conflict-affected fragile economy context where quantitative entrepreneurship research remains scarce [8,21], extending sustainable entrepreneurship theory beyond stable institutional settings. Fourth, by introducing financial constraints as a boundary condition, the study demonstrates how material resource scarcity conditions the association between resilience and sustainable practices, rather than assuming that psychological resources automatically produce responsible outcomes. Fifth, the focus on women micro and small entrepreneurs specifically responds to persistent calls in the literature for more context-sensitive, gender-aware research on sustainable business behavior in developing and conflict-affected economies [3,16,18]. By bringing together sustainability, gender, micro and small entrepreneurship, and fragile economy perspectives, this study positions sustainable business practices as a context-dependent outcome shaped simultaneously by psychological capability and material constraint.

The remainder of this paper is organized as follows: Section 2 presents the theoretical foundations and develops the hypotheses. Section 3 describes the research methodology, including sampling, measures, and analytical approach. Section 4 reports the results of the quantitative analysis. Section 5 discusses the theoretical and practical implications of the findings, and Section 6 concludes with limitations and directions for future research.

2. Literature Review and Hypothesis Development

To improve transparency in the literature identification process, this study followed a structured narrative review approach. Relevant studies were identified through searches in Scopus, Web of Science, and Google Scholar using combinations of keywords including “women entrepreneurship,” “sustainable business practices,” “entrepreneurial self-efficacy,” “entrepreneurial resilience,” “financial constraints,” “fragile economies,” “micro and small businesses,” “Palestine,” and “conflict-affected entrepreneurship.” The review prioritized peer-reviewed articles concerned with sustainable entrepreneurship, women-led enterprises, resilience, financing barriers, and fragile or developing economy contexts, with particular emphasis on work published between 2024 and 2026. Foundational theoretical studies were retained where necessary to anchor Social Cognitive Theory and Conservation of Resources Theory, while recent empirical studies were incorporated to strengthen the contextual and contemporary relevance of the hypotheses. This review does not claim to be a full systematic review; rather, it constitutes a structured narrative review designed to develop theoretically grounded and empirically supported hypotheses.

2.1. Theoretical Foundations: Social Cognitive Theory and Conservation of Resources Theory

This study is grounded in two complementary theoretical frameworks that together provide a comprehensive account of how individual psychological resources interact with contextual constraints in shaping sustainable entrepreneurial behavior.

Social Cognitive Theory (SCT), developed by Bandura [25], posits that human behavior is shaped by a dynamic interplay between personal cognitive factors, behavior, and environmental influences, a process Bandura termed triadic reciprocal determinism. Central to SCT is the concept of self-efficacy, defined as an individual's belief in their capacity to execute the behaviors necessary to produce specific outcomes [24,35]. In entrepreneurial contexts, self-efficacy has been consistently identified as a significant antecedent associated with entrepreneurial intentions, venture creation, and performance [31,32,36]. Individuals with high self-efficacy set more challenging goals, persist longer in the face of obstacles, and recover more readily from setbacks, characteristics that are especially salient in hostile and resource-constrained environments [35,37]. For women micro and small entrepreneurs in Palestine, where environmental uncertainty is chronic and institutional support is minimal, self-efficacy represents a foundational psychological resource linked to both the capacity to withstand adversity and the motivation to adopt responsible business conduct [16,33].

SCT is extended in this study through its implications for entrepreneurial resilience. Bandura [24] argued that individuals with strong self-efficacy beliefs are more likely to develop adaptive coping responses when confronted with stressors, because they interpret challenges as manageable rather than overwhelming. This resilience-building function of self-efficacy has been reported in entrepreneurship research [2,38], suggesting that self-efficacy does not only relate directly to outcomes but also supports the psychological capacity to bounce back and adapt, a capacity that may subsequently enable more sustained and responsible business behavior. In this regard, SCT is particularly useful for explaining the agency side of the model: how confidence, perceived capability, and adaptive coping may help women micro and small entrepreneurs remain committed to sustainable practices despite uncertainty and chronic instability [39,40].

Conservation of Resources Theory (COR), developed by Hobfoll [27], provides the second theoretical pillar of this study. COR theory proposes that individuals are fundamentally motivated to acquire, protect, and build resources, including objects, conditions, personal characteristics, and energy resources, and that psychological stress occurs when resources are threatened, lost, or fail to materialize following resource investment [26]. In entrepreneurial contexts, COR theory has been applied to understand how resource loss spirals, in which initial resource depletion triggers further losses, are associated with weakened entrepreneurial persistence and performance [41,42]. Financial constraints, as a direct form of resource depletion, represent one of the most severe stressors faced by entrepreneurs in fragile economies [38,43], threatening not only material resources but also psychological ones such as resilience and motivation—a dynamic that is especially acute for women micro and small entrepreneurs who typically lack collateral, credit history, or formal financial protection [44,45].

Critically, COR theory predicts that the usefulness of psychological resources, resilience being a prime example, in producing positive outcomes is contingent on the broader resource environment [27]. When resource losses are severe and ongoing, even individuals with strong psychological resources may find their capacity to enact resilience productively compromised, because energy and attention are diverted toward resource protection rather than value creation [46]. This insight provides the theoretical basis for introducing financial constraints as a moderator in our model: high financial constraints do not merely reduce the baseline level of sustainable practices, but specifically attenuate the pathway through which resilience is associated with those practices. This is especially relevant to

women micro and small entrepreneurs because sustainable practices, even at a modest scale, often require minimal financial slack, such as the ability to purchase better inputs, reduce waste systematically, maintain fair labor practices, or invest in continuity-oriented improvements [23,47].

Together, SCT and COR theory form a coherent and complementary theoretical architecture for this study. SCT explains the motivational and cognitive mechanisms through which self-efficacy may build resilience and relate to sustainable behavior, while COR theory explains the boundary conditions under which those psychological mechanisms operate effectively. The theoretical contribution of combining these frameworks is not simply to confirm that self-efficacy and resilience are beneficial, since these associations are already reported in the entrepreneurship literature [7,33]. Rather, the contribution lies in specifying a conditional psychological resource activation process: self-efficacy may support the development of resilience, but resilience is only associated with sustainable business practices when financial constraints are sufficiently manageable to permit responsible conduct. By situating this conditional process within a fragile economy context, among women micro and small entrepreneurs who face compounded gender, institutional, and financial barriers, the study extends existing self-efficacy, resilience, and performance models into the domain of sustainable entrepreneurship where they have not previously been integrated and tested together [8,9].

2.2. Entrepreneurial Self-Efficacy and Sustainable Business Practices

Entrepreneurial self-efficacy (ESE) refers to the degree of confidence an individual holds in their ability to successfully execute entrepreneurial tasks, including opportunity recognition, product or service creation, creative thinking, and the commercialization of new ideas [31]. Rooted in Bandura's [25] broader self-efficacy theory, ESE has been extensively studied as an antecedent of entrepreneurial intentions, venture performance, and adaptive behavior in uncertain environments [36,37,48,49]. Among women entrepreneurs in fragile and developing economies, ESE has also been associated with the adoption of socially responsible and sustainability-oriented business behaviors, particularly in settings where institutional support is weak and survival pressures are high [50,51].

The connection between ESE and sustainable business practices is theoretically grounded in the motivational properties of self-efficacy. Entrepreneurs with high self-efficacy are more likely to set ambitious goals, invest in long-term strategies, and adopt proactive behaviors that extend beyond immediate survival concerns [32,35]. Sustainable business practices, including waste reduction, environmental responsibility, community contribution, fair treatment of workers, and long-term economic stewardship, require precisely this kind of forward-looking orientation and commitment to goals that may not yield immediate financial returns [1,4]. Among women micro and small entrepreneurs, these practices are often modest in scale but meaningful in developmental terms because they link business survival with household stability, community welfare, and responsible use of scarce local resources [19,52]. For women entrepreneurs in Palestine, where survival pressures are acute, the psychological confidence embedded in high self-efficacy may be what enables engagement with sustainable practices that less confident entrepreneurs would regard as unaffordable or secondary to immediate survival.

Empirical evidence supports this reasoning. Luthans et al. [32] demonstrated that psychological capital, of which self-efficacy is a core component, is positively associated with employee performance and responsible workplace behavior. Hamad et al. [53] found that entrepreneurial competencies, including self-belief, are significantly associated with sustainable entrepreneurial outcomes in resource-constrained settings. More recently, Elfghi et al. [54] confirmed that self-efficacy is associated with entrepreneurial perfor-

mance in volatile environments, reinforcing the role of self-efficacy as a psychological resource under adversity. Ghouse and McElwee [33] further demonstrated among rural women entrepreneurs in Oman that resilience is the strongest predictor of self-efficacy, and that confidence in business decisions supports entrepreneurial capability under institutional voids, findings that are theoretically relevant to the Palestinian micro and small business setting. Alshebami [23] also showed that micro and small enterprises in fragile contexts depend on continuity-related capabilities, including cash-flow management and technology-related experience, to remain viable during crises, reinforcing the broader argument that internal capabilities are important for sustainability-oriented conduct in unstable environments. In the context of sustainable business practices specifically, Yacob et al. [5] found that entrepreneur-level psychological attributes are associated with the adoption of sustainability-oriented behaviors in small firms. Based on this theoretical and empirical foundation, we propose:

H1. *Entrepreneurial self-efficacy is positively associated with sustainable business practices.*

2.3. Entrepreneurial Self-Efficacy and Entrepreneurial Resilience

Entrepreneurial resilience refers to the capacity of an entrepreneur to positively adapt, recover, and grow in the face of significant adversity, stress, or business challenges [2,38]. Drawing on the Connor–Davidson Resilience Scale conceptualization [55], entrepreneurial resilience encompasses an entrepreneur’s ability to maintain focus under pressure, bounce back from failure, adapt to environmental changes, and sustain a positive orientation in the face of difficulty. In conflict-affected and resource-constrained environments, resilience represents not merely a desirable trait but an essential survival mechanism [56,57]. For women micro and small entrepreneurs, resilience is also shaped by gendered pressures including household responsibilities, limited mobility, restricted access to finance, and sociocultural expectations that intensify the burden of business continuity, making the psychological resources that support resilience particularly consequential [18,58].

Social Cognitive Theory provides a clear theoretical pathway from self-efficacy to resilience. Bandura [25] argued that self-efficacy beliefs shape how individuals respond to setbacks and stressors: those with high self-efficacy interpret adversity as a challenge to be overcome rather than a threat to be avoided, and they invest greater cognitive and behavioral effort in recovery. This efficacy–resilience link has been reported in both general psychological research [59] and entrepreneurship-specific studies [60]. Bullough et al. [2] demonstrated that self-efficacy is among the strongest individual-level factors associated with entrepreneurial resilience in high-risk environments. Fatoki [38] found that entrepreneurs with stronger belief in their capabilities exhibited significantly higher resilience scores in the context of South African SMEs. Luthans and Youssef-Morgan [61] further established that self-efficacy and resilience are theoretically and empirically distinct but strongly related components of psychological capital, with self-efficacy functioning as a resource that feeds and sustains resilient responses. More recently, Ghouse and McElwee [33] confirmed in a study of rural Arab women entrepreneurs in Oman that resilience mediates the relationship between decision-making confidence and self-efficacy, providing direct evidence that psychological confidence and resilience operate in tandem among women entrepreneurs in institutionally constrained settings comparable to Palestine. Sharma and Rautela [39] similarly reported that entrepreneurial resilience and self-efficacy are interdependent capacities among small business owners navigating crisis conditions.

For Palestinian women entrepreneurs, this relationship carries particular significance. Operating within one of the world’s most persistently hostile entrepreneurial environments, these women face chronic stressors that would rapidly exhaust entrepreneurs with weaker

self-belief. Those who maintain confidence in their entrepreneurial capabilities are better positioned to develop and sustain the psychological resilience needed to continue operating and adapting their businesses under such conditions [16]. In the Palestinian micro and small business context, self-efficacy is not only a personal belief but also a psychological resource that may help women entrepreneurs interpret chronic instability as manageable and continue adjusting their businesses despite limited institutional support, a dynamic consistent with what Althalathini [9] describes as affective-political endurance among Palestinian entrepreneurs. Based on this reasoning, we propose:

H2. *Entrepreneurial self-efficacy is positively associated with entrepreneurial resilience.*

2.4. Entrepreneurial Resilience and Sustainable Business Practices

While entrepreneurial resilience has been predominantly studied as an outcome of adversity or as an antecedent of venture survival, a growing body of research suggests that resilience also relates to the quality and orientation of entrepreneurial behavior, including the adoption of sustainable business practices [1,28]. Resilient entrepreneurs are not merely survivors; they are adaptive actors who may develop broader repertoires of responsible and forward-looking business conduct as a consequence of navigating adversity [32,46].

The theoretical mechanism connecting resilience to sustainable practices operates through two channels. First, resilient entrepreneurs develop a longer time horizon because, having survived adversity, they are more attuned to the importance of building durable, responsible business foundations that reduce future vulnerability [4,62,63]. Sustainable practices, including waste reduction, community engagement, local sourcing, fair treatment of workers, and responsible resource use, are fundamentally long-term investments that resilient entrepreneurs may be more motivated to make. Second, resilience involves a capacity for cognitive reframing, which means interpreting challenges as opportunities for learning and growth [55]. This reframing capacity is associated with a more proactive and responsible approach to business management, where sustainability is seen as a strategic asset rather than a cost.

Empirical support for this association is emerging across diverse contexts. Fatoki [38] demonstrated that more resilient SME entrepreneurs in South Africa were more likely to adopt environmentally and socially responsible business practices, and Aseres et al. [7] found that entrepreneurial resilience was positively associated with business sustainability among micro and small enterprises in Ethiopia. Althothali and Al-Dajani [64] further found that resilience was central to how Saudi women digital entrepreneurs sustained responsible and adaptive business conduct during the COVID-19 crisis, consistent with the argument that resilience relates to sustainability-oriented behavior rather than survival alone. Yacob et al. [5] confirmed that the capacity to adapt and persist under pressure is associated with stronger sustainability orientation in small firm management. Recent studies on vulnerable and fragile entrepreneurship also indicate that women-led micro and small enterprises often combine survival strategies with socially oriented value creation, particularly when entrepreneurs rely on resilience, peer support, and adaptive resource use to sustain business activity under constrained conditions. Based on this evidence, we propose:

H3. *Entrepreneurial resilience is positively associated with sustainable business practices.*

2.5. The Mediating Role of Entrepreneurial Resilience

Having established the individual associations between self-efficacy, resilience, and sustainable business practices, we now propose that entrepreneurial resilience mediates

the relationship between entrepreneurial self-efficacy and sustainable business practices. This mediation hypothesis is grounded in the theoretical logic of Social Cognitive Theory, which suggests that self-efficacy relates to outcomes not only through direct motivational pathways but also by building psychological capacities, resilience being a key example, that subsequently shape behavior [35,61].

The mediation pathway operates as follows: entrepreneurs with high self-efficacy approach their business activities with confidence and persistence, which over time supports their capacity to withstand and recover from adversity, that is, their entrepreneurial resilience [33,35,54]. This accumulated resilience may then be associated with a more sustainable and responsible approach to business conduct, as entrepreneurs feel sufficiently secure and capable to invest in long-term practices rather than focusing exclusively on immediate survival [38,64]. Self-efficacy thus functions as the motivational origin of a psychological development process associated with sustainable business behavior, with resilience as the critical intervening mechanism [39,61].

This mediation logic is supported by existing research. Luthans et al. [32] demonstrated that psychological capital components, including self-efficacy and resilience, form a higher-order construct that operates through sequential psychological mechanisms, with efficacy feeding resilient responses that in turn relate to positive performance outcomes. Bullough et al. [2] similarly suggested that self-efficacy supports resilience in hostile environments, which subsequently shapes entrepreneurial behavior. Alhothali and Al-Dajani [64] found evidence consistent with resilience mediating the relationship between emotional resources and sustainable entrepreneurial conduct among Saudi women entrepreneurs during crisis conditions, providing support for the mediation logic in a comparable MENA women entrepreneurship context. Sharma and Rautela [39] similarly found that self-efficacy and resilience are interdependent psychological capacities that jointly shape positive business outcomes among small businesses in crisis conditions, and Madawala et al. [40] confirmed among women entrepreneurs in tourism that self-efficacy functions as a foundation for resilience during crisis, reinforcing the developmental pathway through which psychological confidence may be associated with responsible business conduct. In fragile economy settings, this mediation logic is especially important because sustainable business practices may require entrepreneurs to convert confidence into adaptive persistence before that confidence manifests as responsible business conduct [33]. The present study therefore examines whether resilience explains how self-efficacy is associated with sustainability-oriented practices specifically among women micro and small entrepreneurs facing chronic instability, a test that has not previously been conducted in a conflict-affected Palestinian context [8,21]. Based on this reasoning, we propose:

H4. *Entrepreneurial resilience mediates the relationship between entrepreneurial self-efficacy and sustainable business practices.*

2.6. The Moderating Role of Financial Constraints

While the preceding hypotheses establish the psychological pathway from self-efficacy through resilience to sustainable business practices, Conservation of Resources Theory [26,27] directs our attention to the boundary conditions under which this pathway operates effectively. Specifically, we propose that financial constraints moderate the association between entrepreneurial resilience and sustainable business practices, as well as the indirect association between self-efficacy and sustainable practices through resilience.

Financial constraints, encompassing difficulties in accessing internal and external finance, high borrowing costs, collateral requirements, and cash-flow shortages, represent a severe and chronic form of resource depletion that is particularly prevalent among women

entrepreneurs in fragile economies [43,65]. These constraints are especially acute for women micro and small entrepreneurs in Palestine, who typically lack collateral, formal banking relationships, and credit history, and whose financial instability is compounded by conflict-related disruptions to market access, supply chains, and payment systems [44,45,66]. According to COR theory, when individuals face significant resource loss, their capacity to deploy existing psychological resources toward productive outcomes is compromised, because cognitive and behavioral energy must be redirected toward resource protection and loss prevention [27,42]. In other words, even resilient entrepreneurs may find it increasingly difficult to enact their psychological strengths as sustainable business practices when financial constraints are severe, because the material prerequisites for implementing those practices, such as investment in sustainable materials, energy-efficient processes, fair employment practices, and community contributions, are unavailable.

This moderating logic is consistent with empirical evidence on the interaction between financial and psychological resources in entrepreneurship. Shepherd et al. [41] demonstrated that financial resource loss weakens the positive association between psychological resilience and entrepreneurial recovery. Mittal and Raman [43] found that financial constraints limit the capacity of MSME owners to invest in growth-oriented and responsible business behaviors. Fatoki [38] similarly observed that financial resource scarcity weakened the association between resilience and positive business outcomes among South African entrepreneurs. More recently, Alshebami [23] emphasized that cash-flow management skills and access to cashless mobile technology are associated with enterprise continuity among micro and small enterprises in fragile contexts, highlighting the practical importance of financial capability and liquidity during crises. Agrawal et al. [47] similarly identified financial limitations as the primary barrier through which resource constraints restrict sustainable business development and innovation capacity. However, whereas these studies foreground financial access and digital capability as direct enablers, the present study examines whether financial constraints specifically weaken the psychological pathway from resilience to sustainable practices, a moderation logic grounded in COR theory. For Palestinian women entrepreneurs specifically, the combination of conflict-induced financial instability, limited access to formal credit markets, and lack of collateral creates conditions under which even the most psychologically resilient entrepreneurs may be unable to fully realize sustainable business practices [12,14,16,44].

Importantly, this moderating association extends to the indirect pathway from self-efficacy through resilience to sustainable practices, constituting a moderated mediation framework. When financial constraints are high, the capacity of resilience to be associated with sustainable business practices is weakened, which consequently weakens the entire indirect association between self-efficacy and sustainable practices [27,42,67,68]. This conditional logic is central to the theoretical contribution of the study: psychological resources may be necessary for sustainability-oriented behavior among women micro and small entrepreneurs, but they may be insufficient when entrepreneurs lack the financial resources required to enact responsible business practices [45,47]. This extends COR theory into the sustainable entrepreneurship domain by specifying that material scarcity conditions the behavioral translation of psychological strength, a boundary condition that is especially relevant in fragile economies where financial exclusion is chronic rather than episodic [8,46]. Based on this reasoning, we propose:

H5. *Financial constraints moderate the association between entrepreneurial resilience and sustainable business practices, such that the positive association is weaker when financial constraints are high.*

H6. Financial constraints moderate the indirect association between entrepreneurial self-efficacy and sustainable business practices through entrepreneurial resilience, such that the indirect association is weaker when financial constraints are high.

2.7. Conceptual Research Model

The proposed research model integrates the six hypotheses into a moderated mediation framework. Entrepreneurial self-efficacy serves as the independent variable, with a direct association with sustainable business practices (H1) and an indirect association through entrepreneurial resilience (H2, H3, H4). Financial constraints function as a moderator of the pathway from resilience to sustainable business practices (H5) and consequently of the entire indirect association (H6). The model is grounded in Social Cognitive Theory and Conservation of Resources Theory, and is explored using survey data from women micro and small entrepreneurs operating in the conflict-affected Palestinian economy. Consistent with the exploratory and cross-sectional nature of the study, the framework is interpreted as a theoretically grounded association-based model rather than a causal design. The conceptual model is illustrated in Figure 1.

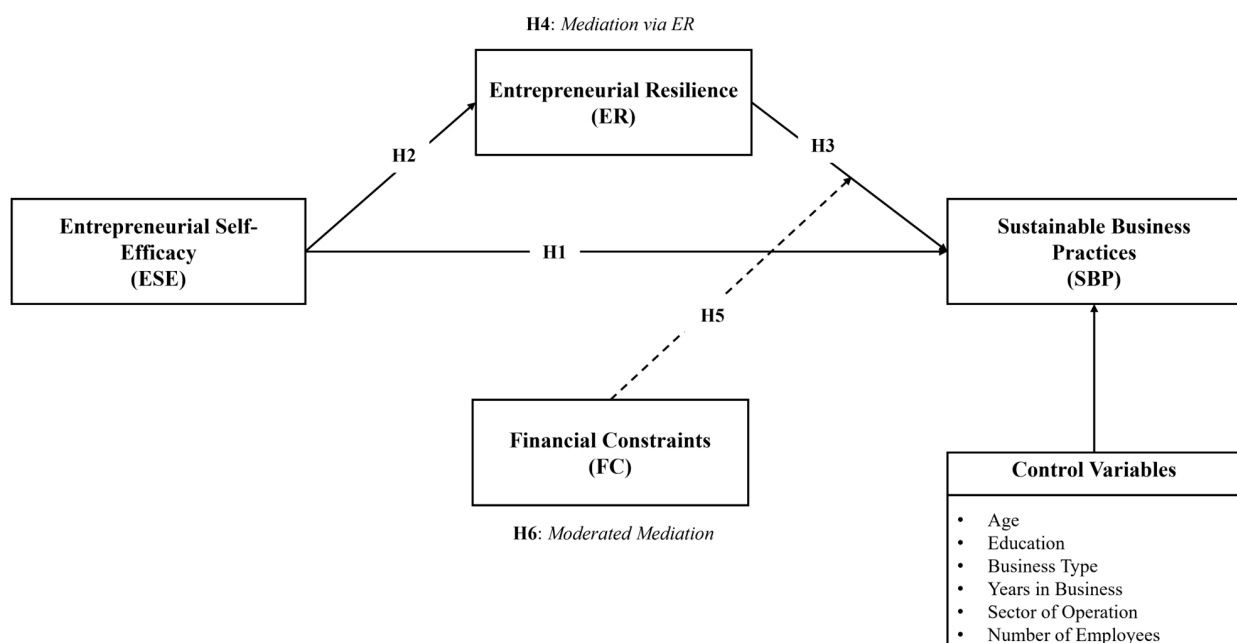


Figure 1. Research Model. Note: Solid arrows represent direct effects, while dotted arrows represent moderating effects.

3. Research Methodology

3.1. Research Context and Participants

Women who operate micro and small businesses in the West Bank, Palestine, form the empirical population of this study. The West Bank has for decades carried the weight of political conflict, restricted movement of goods and people, and an institutional environment shaped by external governance constraints rather than organic economic development. These conditions have produced a business landscape in which women entrepreneurs must simultaneously manage the ordinary uncertainties of running a small enterprise and the extraordinary disruptions associated with prolonged socio-political instability [12,13]. Financial exclusion compounds these challenges substantially: formal credit markets remain inaccessible to most informal women-owned businesses, collateral requirements exceed the asset base of typical micro-entrepreneurs, and cash-flow instability is endemic rather than exceptional [69].

What makes this setting theoretically important, rather than merely difficult, is precisely the severity and combination of its conditions. Sustainable business practices, which require forward-planning, investment of scarce resources into responsible conduct, and a commitment to outcomes that extend beyond immediate financial survival, are associated with the kind of psychological and material foundations that fragile environments systematically erode. In the Palestinian context, these pressures are intensified by conflict exposure, restricted mobility, financial exclusion, informal business activity, weak institutional support, and gendered expectations that shape women's access to markets, finance, and business networks [8,16]. Examining whether and how these practices emerge among Palestinian women entrepreneurs therefore offers a stringent test of the psychological mechanisms proposed in this study, one that would not be possible in more institutionally supported or resource-abundant settings. The West Bank thus functions not merely as a backdrop but as a theoretically active context that generates meaningful variation in the constructs of interest and exposes the boundary conditions of the model with greater precision than a stable-economy sample could. While comparable fragile economy settings such as Lebanon, Afghanistan, Syria, Jordan, and selected African fragile states share features including financial exclusion, gendered barriers, and institutional weakness, the Palestinian case is distinguished by the combination of prolonged movement restrictions, fragmented markets, recurring political disruption, and near-complete dependence on micro and informal enterprise activity as the primary livelihood mechanism [6,18,20,70]. Findings from this study may therefore offer transferable insights for research in comparable fragile economies, while acknowledging that the strength of the observed associations may vary according to local institutional conditions, mobility, financial infrastructure, and gender norms.

A further dimension of contextual relevance concerns the relationship between this study and prior research on the same population. Earlier investigations of Palestinian women's entrepreneurship have predominantly relied on qualitative approaches or secondary aggregate data to describe patterns of financial exclusion and gendered barriers, while individual-level quantitative measurement of psychological constructs such as self-efficacy and resilience has remained largely absent from this literature [8,9,71]. Although Istanbuli [72] examined self-efficacy among Palestinian women entrepreneurs, resilience and its association with sustainable business practices have not been empirically tested at the individual level in this context. The present study fills this gap by deploying a primary survey instrument with validated reflective scales, making it possible for the first time to examine theoretically grounded associations at the level of individual entrepreneurs rather than to infer them from macro-level indicators.

3.2. Research Design and Data Collection

The study follows a quantitative cross-sectional design built around a structured self-administered questionnaire. The study is exploratory and predictive in orientation, seeking to examine theoretically grounded associations within an under-researched fragile economy context rather than to establish causal relationships. This design choice was driven by the nature of the research model: testing a moderated mediation framework requires sufficient sample size for statistical power across multiple paths, and the constructs in question, particularly self-efficacy and resilience, are best captured through standardized psychometric instruments administered at a single point in time [31,73]. The target population consisted of women currently running any form of business activity in the West Bank, including informally organized home-based enterprises and more formally structured non-home-based operations, spanning sectors from food production and handicrafts through retail trade and personal services.

Reaching this population required an institutional access strategy rather than conventional probability sampling, because no comprehensive register of informal women entrepreneurs exists in the West Bank and direct cold-approach fieldwork carries significant practical limitations in the current political environment. Purposive sampling was used rather than convenience sampling because respondents had to meet specific inclusion criteria: they had to be women entrepreneurs, operate micro or small businesses, be located in the West Bank, and be directly involved in business decision-making [74]. Convenience sampling would have been less appropriate because it would have captured only easily accessible respondents without ensuring that they matched the theoretical population required for the study. The microfinance institutions and NGO partner networks were therefore used as structured access channels to reach theoretically eligible respondents, not simply as the most convenient available source [2,56]. The study was conducted in collaboration with institutions whose operational reach spans both urban governorates and rural districts across the territory, including FATEN, Vitas Palestine, and affiliated community development bodies. Field assistants attached to these institutions identified eligible respondents from within their existing client and beneficiary communities, ensuring a level of trust and accessibility that would be unachievable through independent survey administration. Geographic stratification distinguished urban areas, primarily Nablus, Hebron, and Jenin, from rural and semi-rural districts, and business type stratification separated home-based from non-home-based enterprises, both of which are theoretically relevant subgroups for the constructs under examination.

Questionnaires were administered face-to-face in Arabic by trained enumerators, a method chosen because it maximizes completion rates, accommodates varying literacy levels, and produces more careful and considered responses than self-administered online surveys in this population [75]. Before fieldwork began, enumerators received structured briefings on respondent eligibility criteria, voluntary participation protocols, confidentiality requirements, neutral survey administration procedures, and the importance of avoiding any influencing of respondent answers. The Arabic instrument was prepared through a forward-back translation process in which two bilingual academics independently produced the Arabic version, re-translated it to English, and resolved all discrepancies through discussion to establish conceptual equivalence [76]. Each questionnaire was introduced with a brief explanatory note confirming the academic nature of the research, the complete anonymity of responses, the voluntary character of participation, and the absence of evaluatively correct answers. Fieldwork ran from December 2025 to February 2026. Of 428 questionnaires distributed, 331 were returned. Removal of responses with incomplete data, implausible straight-lining patterns, or internal inconsistencies reduced the usable sample to 282, providing adequate statistical power for all planned analyses including bootstrapped moderated mediation with 5000 resamples [77–79]. Because respondents were reached through NGO and microfinance networks, the sample may overrepresent women entrepreneurs who are already connected to institutional support channels, and the study therefore does not claim statistical representativeness of all women micro and small entrepreneurs in Palestine. To assess potential non-response bias, responses from early respondents, defined as the first third of returned questionnaires, were compared with those from late respondents, defined as the final third, following the procedure recommended by Armstrong and Overton [80]. Comparisons across key demographic and business characteristics including age, education level, business type, years in business, and number of employees revealed no statistically significant differences between the two groups, suggesting that non-response bias is unlikely to represent a serious threat to the validity of the findings. The composition of the final sample is described in Table 1.

Table 1. Sample Characteristics.

Variable	Category	Frequency	Percentage (%)
Age	20–29 years	72	25.5
	30–39 years	117	41.5
	40–49 years	67	23.8
	50 years and above	26	9.2
Education Level	Primary or less	18	6.4
	Secondary	41	14.5
	Diploma/Vocational	97	34.4
	Bachelor's degree or above	126	44.7
Governorate	Nablus	83	29.4
	Hebron	91	32.3
	Jenin	89	31.6
	Other West Bank governorates	19	6.7
Location	Urban	173	61.3
	Rural	109	38.7
Business Type	Home-based	97	34.4
	Non-home-based	185	65.6
Marital Status	Married	203	72.0
	Single/Divorced/Widowed	79	28.0
Years in Business	Less than 1 year	6	2.1
	1–3 years	134	47.5
	4–7 years	101	35.8
	8 years or more	41	14.5
Number of Employees	Solo (no employees)	38	13.5
	1–3 employees	101	35.8
	4 or more employees	143	50.7
Sector of Operation	Production-oriented	181	64.2
	Service-oriented	101	35.8
Total		282	100.0

3.3. Measurement of Constructs

Scale items for all four constructs were drawn from peer-reviewed sources and adapted for semantic appropriateness to the Palestinian informal entrepreneurship context. Translation and pilot-testing preceded full deployment: a forward-back translation by two bilingual academics established Arabic linguistic equivalence [76], and a pilot administration with 30 women entrepreneurs allowed refinement of item wording without altering scale structure or construct coverage. Response options followed a seven-point Likert format throughout, which yields sufficient distributional variance for structural modeling and reduces floor and ceiling effects relative to five-point formats [81].

The entrepreneurial self-efficacy (ESE) construct drew on the four-item scale of Zhao et al. [31], a widely cited instrument built around perceived capability across opportunity identification, product and service creation, creative thinking, and idea commer-

cialization. The scale was introduced with the question stem asking how much confidence respondents have in performing each of these entrepreneurial tasks. A recent application by Elfghi et al. [54] in a comparably volatile setting provided additional evidence of its suitability for samples operating under adversity. Entrepreneurial resilience (ER) was captured through ten items adapted from the Connor–Davidson Resilience Scale 10 as applied in the entrepreneurship literature by Fatoki [38]. The items collectively assess goal persistence under adversity, psychological recovery following setbacks, the capacity to maintain concentration in high-pressure situations, behavioral adaptability, and the ability to reframe difficulties constructively. Financial constraints (FC) were operationalized through six items sourced from Mittal and Raman [43] and Lownes-Jackson et al. [65], addressing the cost burden of start-up expenses, restricted access to both internal and external financing channels, the obstacle posed by collateral requirements, the association between borrowing costs and investment capacity, and cash-flow shortfalls that impede operational development. Sustainable business practices (SBP) were assessed through eight items adapted from Cassells and Lewis [4] and Yacob et al. [5], spanning waste reduction, energy and water conservation, use of environmentally responsible inputs, environmental consideration in decision-making, fair treatment of workers, community engagement, preference for local supply chains, and commitment to long-term triple-bottom-line responsibility.

Three demographic control variables were incorporated into the structural model to reduce the risk that background characteristics account for variation in sustainable business practices. Age was controlled because entrepreneurial experience, risk orientation, and business development priorities may vary across age groups in ways that independently relate to sustainability-oriented conduct [43,54]. Education level was controlled because formal education may shape awareness of environmental and social responsibility norms and the capacity to implement them [31,32]. Business type, distinguishing home-based from non-home-based enterprises, was controlled because these two groups differ in operational visibility, customer interaction, scale, and exposure to external market pressures that may independently relate to sustainable practices [4,82]. In addition, years in business and number of employees were included as supplementary controls because business maturity and size may independently relate to the capacity to invest in sustainable practices beyond survival-oriented activities. Sector of operation was operationalized as a binary variable distinguishing production-oriented businesses, including food processing, handicrafts, and agri-food activities, from service-oriented businesses, including retail, personal services, and trade, because these two sectors differ in their environmental footprint and the type of sustainable practices that are relevant to them [5,43,54].

3.4. Common Method Bias

Because both predictor and outcome constructs were obtained from the same respondents within a single questionnaire occasion, the potential for common method bias (CMB) warranted systematic management. Design-level precautions included full anonymization of all responses, clear communication of the non-evaluative academic purpose to reduce social desirability pressures, accessible and unambiguous item wording, placement of predictor and outcome constructs in separate questionnaire sections separated by the demographic profile block, and strict non-coercive participation conditions [83]. These procedural remedies were implemented to reduce evaluation apprehension, consistency motives, and socially desirable responding before data collection began. Two post-hoc statistical assessments were then conducted to gauge the severity of any residual CMB. In the first, an unrotated exploratory factor analysis of all 28 items extracted a dominant factor explaining 36.57 percent of total variance, which falls comfortably below the 50 percent threshold beyond which a single-factor explanation becomes plausible [84]. In the second,

full collinearity VIF values were computed for each latent variable within the PLS-SEM solution, yielding a range of 1.527 to 2.959, all within the threshold of 3.3 that Kock [85] associates with CMB-free estimation. Taken together, these diagnostics indicate that CMB is unlikely to have materially distorted the observed associations, though the cross-sectional single-source design means that associational rather than causal language remains appropriate. These tests do not fully eliminate the possibility of common source influence, and future research would benefit from collecting sustainability practice data from multiple sources such as external evaluations, customer assessments, NGO records, or observable business indicators rather than relying solely on entrepreneur self-report.

3.5. Data Analysis Strategy

Structural model estimation was carried out with SmartPLS 4.0 [86] using partial least squares structural equation modeling. PLS-SEM was selected because the study is exploratory and predictive rather than confirmatory or causal [78]. The objective was to examine theoretically grounded associations among entrepreneurial self-efficacy, entrepreneurial resilience, financial constraints, and sustainable business practices in an under-researched fragile economy context, consistent with the exploratory orientation of the study. Three characteristics of the current research problem align with the strengths of PLS-SEM. First, the primary objective is predictive explanation, meaning that the study seeks to account for variance in sustainable business practices rather than to confirm a theoretically pre-specified covariance structure, which is consistent with the exploratory and prediction-oriented purposes for which PLS-SEM is particularly well suited [87,88]. Second, the model combines reflective measurement with a mediated and moderated structural architecture involving interaction terms, indirect associations, and multiple endogenous constructs, a configuration that PLS-SEM handles within a unified estimation framework without the iterative convergence difficulties that can arise in covariance-based approaches with small to medium samples [77,89]. Third, PLS-SEM does not require multivariate normality and has been shown to produce stable estimates under distributional conditions typical of survey data from heterogeneous and hard-to-reach populations [90,91]. It is acknowledged, however, that PLS-SEM is not a substitute for causal identification, and the cross-sectional and single-source design of this study supports the interpretation of statistical associations rather than directional causal claims.

Assessment followed a two-stage sequence: the measurement model was fully evaluated before any structural paths were examined, ensuring that construct validity and reliability were established as a precondition for interpreting path coefficients [87]. All significance tests and confidence intervals were derived from bias-corrected bootstrapping with 5000 resamples [92]. The moderated mediation test for H6 additionally used Hayes' PROCESS macro Model 14 in SPSS version 26.0, which estimates conditional indirect associations and their confidence intervals at specified levels of the moderator variable [93]. To assess whether the main associations are sensitive to background characteristics, the structural model was re-estimated with an extended set of control variables including age, education, business type, years in business, number of employees, and sector of operation, classified as a binary distinction between production-oriented and service-oriented businesses. Reporting whether the main path signs and significance levels remain stable across these specifications provides a robustness assessment consistent with the exploratory nature of the study.

4. Results

4.1. Measurement Model Assessment

Measurement quality was evaluated across four criteria: indicator reliability, internal consistency, convergent validity, and discriminant validity, following the standards documented in Hair et al. [77]. Table 2 presents the full set of estimates. Every outer loading exceeded 0.70, spanning a range from 0.750 on SBP5 to 0.936 on FC3, establishing that each item shares a meaningful proportion of its variance with its assigned latent variable rather than with measurement error [91]. Cronbach's alpha values ranged from 0.871 for FC to 0.913 for ESE, and composite reliability ranged from 0.917 for SBP to 0.939 for ESE, both metrics comfortably above the minimum of 0.70 recommended by Nunnally [94] and the more demanding 0.80 benchmark for social science research [95]. Average variance extracted exceeded 0.50 for all constructs [96], with values from 0.582 for SBP to 0.812 for FC, confirming that each construct captures more variance from its indicators than residual measurement noise. Indicator VIF values were uniformly below 3.3, ruling out multicollinearity as an alternative explanation for the observed loadings [85].

Table 2. Measurement Model Assessment: Reliability, Convergent Validity, and Collinearity.

Construct	Code	Loading	VIF	Alpha	CR	AVE
Entrepreneurial Self-Efficacy (ESE)				0.913	0.939	0.792
	ESE1	0.897	1.445			
	ESE2	0.884	1.406			
	ESE3	0.904	1.316			
	ESE4	0.875	1.903			
Entrepreneurial Resilience (ER)				0.908	0.936	0.786
	ER1	0.848	2.049			
	ER2	0.884	1.523			
	ER3	0.880	1.980			
	ER4	0.867	2.110			
	ER5	0.891	2.050			
	ER6	0.781	2.321			
	ER7	0.784	1.563			
	ER8	0.858	1.746			
	ER9	0.837	2.247			
	ER10	0.831	2.310			
Financial Constraints (FC)				0.871	0.931	0.812
	FC1	0.841	1.777			
	FC2	0.931	2.536			
	FC3	0.936	2.122			
	FC4	0.924	1.580			
	FC5	0.928	1.719			
	FC6	0.930	2.316			

Table 2. *Cont.*

Construct	Code	Loading	VIF	Alpha	CR	AVE
Sustainable Business Practices (SBP)				0.896	0.917	0.582
	SBP1	0.853	2.914			
	SBP2	0.835	2.866			
	SBP3	0.797	2.246			
	SBP4	0.834	1.543			
	SBP5	0.750	1.861			
	SBP6	0.757	1.921			
	SBP7	0.795	2.202			
	SBP8	0.853	1.578			

Note: CR = Composite Reliability; AVE = Average Variance Extracted; VIF = Variance Inflation Factor. All outer loadings exceed 0.70; AVE exceeds 0.50; CR exceeds 0.80; VIF values below 3.3 indicate no serious multicollinearity concern.

Discriminant validity was examined using the heterotrait–monotrait (HTMT) ratio, whose values appear in Table 3. The highest observed HTMT was 0.581 between ER and FC, and all values fell below the 0.85 threshold endorsed by Henseler et al. [97], confirming that the four constructs are empirically separable. For clearer reporting, diagonal values were omitted from the HTMT matrix because discriminant validity is assessed through ratios between different constructs rather than through a construct’s relationship with itself. Model fit statistics are reported in Table 4. The saturated-model SRMR of 0.058 satisfies the accepted cutoff of 0.08 [98], and the NFI of 0.924 exceeds the minimum benchmark of 0.90, together providing assurance that the overall factor structure adequately represents the covariance patterns in the data.

Table 3. Heterotrait–Monotrait (HTMT) Ratios.

Constructs	ER	ESE	FC	SBP
Entrepreneurial Resilience (ER)	0			
Entrepreneurial Self-Efficacy (ESE)	0.531	0		
Financial Constraints (FC)	0.581	0.514	0	
Sustainable Business Practices (SBP)	0.455	0.566	0.499	0

Note: All reported HTMT values are below the 0.85 threshold, supporting discriminant validity [97]. ER = Entrepreneurial Resilience; ESE = Entrepreneurial Self-Efficacy; FC = Financial Constraints; SBP = Sustainable Business Practices.

Table 4. Model Fit Indices.

Fit Index	Saturated Model	Estimated Model
SRMR	0.058	0.065
d_ULS	2.113	2.635
d_G	1.656	1.732
Chi-square	3543.001	3657.560
NFI	0.924	0.917

Note: SRMR below 0.08 and NFI above 0.90 jointly indicate acceptable model fit. SRMR = Standardized Root Mean Square Residual; d_ULS = Squared Euclidean Distance; d_G = Geodesic Distance; NFI = Normed Fit Index. SRMR values below 0.08 and NFI values above 0.90 jointly indicate acceptable model fit.

4.2. Structural Model Assessment

Inner VIF values for all structural paths fell below 3.3, ruling out predictor collinearity as a threat to path coefficient stability [85,87]. Table 5 presents the bootstrapped path

estimates, standard errors, *t*-statistics, f^2 values, and *p*-values for all direct associations and control variable paths. The model accounted for 69.4 percent of the variance in sustainable business practices and 80.0 percent of the variance in entrepreneurial resilience, both of which indicate substantial explanatory power under the standards set by Cohen [99]. Stone-Geisser Q^2 values of 0.639 for sustainable business practices and 0.796 for entrepreneurial resilience indicate strong out-of-sample predictive relevance. The path model with standardized coefficients is illustrated in Figure 2.

Table 5. Structural Model Results and Direct Hypothesis Testing.

H	Path	Beta	S.E.	t-Value	p-Value	VIF	f^2	R^2	Q^2	Result
Direct Effects										
H1	ESE → SBP	0.360	0.062	5.849	<0.001	1.125	0.202	0.800	0.635	Supported
H2	ESE → ER	0.425	0.051	8.370	<0.001	1.144	0.340	0.694	0.796	Supported
H3	ER → SBP	0.609	0.076	7.999	<0.001	1.163	0.400	-	-	Supported
Control Variables										
	Age → SBP	0.002	0.029	0.081	0.935	1.138	-	-	-	NS
	Business Type → SBP	−0.037	0.061	0.606	0.544	1.696	-	-	-	NS
	Education → SBP	0.007	0.031	0.208	0.835	1.967	-	-	-	NS
	Number of Employees → SBP	0.014	0.029	0.504	0.614	1.223	-	-	-	NS
	Years in Business → SBP	0.027	0.028	1.000	0.317	1.040	-	-	-	NS
	Sector of Operation → SBP	−0.026	0.055	0.462	0.644	1.037	-	-	-	NS

Note: Beta = standardized path coefficient; S.E. = standard error; f^2 = Cohen's effect size; R^2 = coefficient of determination; Q^2 = Stone-Geisser predictive relevance; NS = not significant. All significance tests use 5000-subsample bias-corrected bootstrapping.

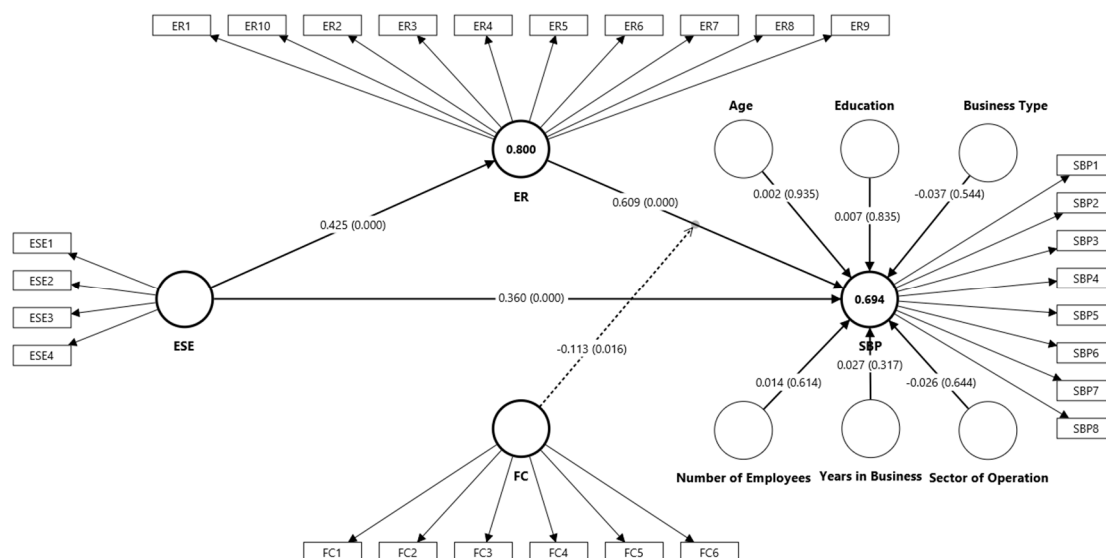


Figure 2. PLS-SEM Path Model with Standardized Coefficients. Note: Solid arrows represent direct effects, while dotted arrows represent moderating effects. ER = Entrepreneurial Resilience; ESE = Entrepreneurial Self-Efficacy; FC = Financial Constraints; SBP = Sustainable Business Practices.

H1 received support: entrepreneurial self-efficacy was positively and significantly associated with sustainable business practices (beta = 0.360, $p < 0.001$), producing a moderate f^2 value of 0.202. H2 was supported: self-efficacy showed a strong positive association with entrepreneurial resilience (beta = 0.425, $p < 0.001$), producing a medium-to-large f^2 value of

0.340. H3 was also supported, with entrepreneurial resilience showing a strong positive association with sustainable business practices ($\beta = 0.609$, $p < 0.001$), producing a large f^2 value of 0.400. These findings are interpreted as statistical associations rather than causal relationships, consistent with the cross-sectional and single-source nature of the data.

Six control variables were included in the structural model to account for background characteristics that may independently relate to sustainable business practices. Age ($\beta = 0.002$, $p = 0.935$), education ($\beta = 0.007$, $p = 0.835$), and business type ($\beta = -0.037$, $p = 0.544$) were controlled because life stage, formal education, and operational setting may shape sustainability awareness and capacity independently of the psychological constructs under examination. Number of employees ($\beta = 0.014$, $p = 0.614$), years in business ($\beta = 0.027$, $p = 0.317$), and sector of operation ($\beta = -0.026$, $p = 0.644$) were additionally controlled because business size, maturity, and activity type may independently relate to the capacity to adopt sustainable practices among micro and small enterprises. None of the six control paths reached statistical significance, indicating that the hypothesized associations between self-efficacy, resilience, financial constraints, and sustainable business practices remained stable after accounting for these background characteristics.

4.3. Mediation Analysis

The test of H4 asked whether entrepreneurial resilience explains the association between self-efficacy and sustainable business practices. Bias-corrected bootstrapped confidence intervals with 5000 resamples were used to evaluate the indirect association [100]. As Table 6 shows, the indirect pathway from ESE through ER to SBP was positive and statistically significant ($\beta = 0.259$, $p < 0.001$, 95% CI [0.178, 0.351]), with its confidence interval fully excluding zero. Because the direct path from self-efficacy to sustainable practices also remained significant once resilience was included in the model, the pattern qualifies as partial rather than full mediation [101]. In substantive terms, this suggests that self-efficacy is associated with sustainable business practices both through resilience and through a separate direct pathway. This interpretation remains association-based and should not be read as evidence of causal sequencing. H4 is supported.

Table 6. Mediation Analysis Results.

Indirect Path	Beta	S.E.	t-Value	p-Value	95% CI [LL, UL]	Decision
H4: ESE → ER → SBP	0.259	0.045	5.809	<0.001	[0.178, 0.351]	Supported

Note: CI = 95% bias-corrected bootstrapped confidence interval; LL = lower limit; UL = upper limit. A confidence interval excluding zero supports the indirect association.

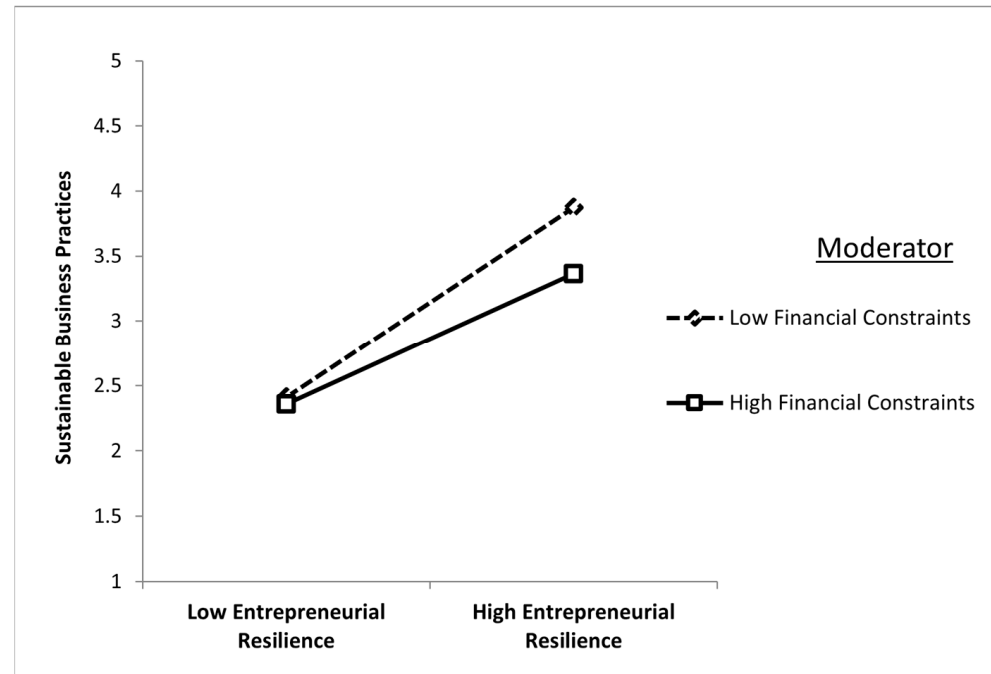
4.4. Moderation Analysis

H5 predicted that intensifying financial constraints would weaken the positive association between entrepreneurial resilience and sustainable business practices. The interaction term was formed by multiplying the mean-centred resilience and financial constraints scores, and its coefficient was estimated through bootstrapped PLS-SEM [102]. Table 7 shows that the interaction coefficient was negative and statistically significant ($\beta = -0.113$, $p = 0.016$), with a small-to-moderate f^2 value of 0.053, supporting H5. Figure 3 renders this association visually: the slope linking resilience to sustainable practices is noticeably steeper for entrepreneurs whose financial constraints are low and flattens as constraints increase. This pattern is consistent with Conservation of Resources Theory: when material resource scarcity redirects cognitive and behavioral energy toward basic preservation, psychologically resilient entrepreneurs may have less capacity to direct that resilience into sustainability-oriented conduct [27,28,30].

Table 7. Moderation Analysis Results (Financial Constraints as Moderator).

Interaction Path	Beta	S.E.	t-Value	p-Value	VIF	f ²	Result
H5: FC × ER → SBP	−0.113	0.047	2.418	0.016	2.647	0.053	Supported

Note: Interaction term constructed from mean-centred variables. Bootstrapping with 5000 subsamples.

**Figure 3.** Interaction Plot: Financial Constraints × Entrepreneurial Resilience on Sustainable Business Practices.

4.5. Moderated Mediation Analysis

H6 asked whether the indirect association between entrepreneurial self-efficacy and sustainable business practices through entrepreneurial resilience varies across levels of financial constraints. Hayes' PROCESS macro Model 14 was applied in SPSS with 5000 bias-corrected bootstrap resamples to estimate the moderated mediation index and the conditional indirect associations at low, mean, and high levels of financial constraints [93]. The index of moderated mediation was -0.013 (95% CI $[-0.024, -0.008]$), which excludes zero and therefore supports the presence of moderated mediation. Table 8 reports the conditional indirect associations at three levels of financial constraints. At low financial constraints the conditional indirect association was -0.047 (95% CI $[-0.136, -0.030]$), at mean financial constraints it was -0.046 (95% CI $[-0.130, -0.029]$), and at high financial constraints it was -0.044 (95% CI $[-0.138, -0.043]$). All three confidence intervals fully exclude zero, confirming that the indirect association remains statistically significant across all levels of the moderator. The magnitude of the indirect association attenuates slightly as financial constraints increase, indicating that higher financial constraints are associated with a narrowing of the pathway linking entrepreneurial self-efficacy to sustainable business practices through resilience. These results are interpreted as associations consistent with the exploratory cross-sectional design of the study. H6 is therefore supported.

Table 8. Conditional Indirect Effects of ESE on SBP via ER at Levels of Financial Constraints (PROCESS Macro, Model 14).

H	IV	Mediator	Moderator Level	Indirect Effect	Lower CI	Upper CI
H6	ESE	ER	Low FC	−0.047	−0.136	−0.030
			Mean FC	−0.046	−0.130	−0.029
			High FC	−0.044	−0.138	−0.043

Note: IV = entrepreneurial self-efficacy; mediator = entrepreneurial resilience; moderator = financial constraints. Moderated mediation index = −0.013 [95% CI: −0.024, −0.008]. All conditional confidence intervals exclude zero, supporting the conditional indirect association across all levels of financial constraints.

4.6. Robustness Checks

To assess whether the main associations were sensitive to background characteristics, the structural model was re-estimated with an extended set of control variables beyond age, education, and business type. Specifically, number of employees, years in business, and sector of operation were added because business size, business maturity, and activity type may independently relate to sustainable business practices among micro and small enterprises. The inclusion of these additional controls did not materially change the direction or statistical significance of any of the main hypothesized associations: the paths for H1 through H5 and the conditional indirect association in H6 remained supported. None of the additional control variables reached statistical significance. These results strengthen confidence that the reported associations are not explained by observable business characteristics, while remaining interpreted as cross-sectional associations rather than causal estimates.

4.7. Predictive Relevance

PLSpredict was used to generate out-of-sample Q^2 statistics for both endogenous constructs, complementing the in-sample R^2 values reported above [103]. Table 9 presents these estimates. Both sustainable business practices and entrepreneurial resilience recorded Q^2 values substantially above 0.50, placing them in the large predictive accuracy category defined by Hair et al. [87]. High Q^2 in tandem with high R^2 indicates that the model has strong predictive relevance beyond the estimation sample. However, predictive relevance should not be interpreted as evidence of causality; it indicates that the model performs well in prediction-oriented assessment, which is consistent with the exploratory PLS-SEM orientation of the study.

Table 9. Coefficient of Determination, R^2 , and Predictive Relevance, Q^2 .

Endogenous Construct	R^2	Q^2	Interpretation
Entrepreneurial Resilience (ER)	0.694	0.796	Substantial
Sustainable Business Practices (SBP)	0.800	0.635	Substantial

Note: R^2 benchmarks: 0.19 = weak, 0.33 = moderate, 0.67 = substantial [99]. Q^2 above 0.50 denotes large predictive accuracy [103].

5. Discussion and Implications

5.1. Discussion of Key Findings

This study examined the associations among entrepreneurial self-efficacy, entrepreneurial resilience, financial constraints, and sustainable business practices among women micro and small entrepreneurs in the West Bank, Palestine, with entrepreneurial resilience as the mediating mechanism and financial constraints as the moderating boundary condition. The findings provide association-based support for all six proposed hypotheses and should

be interpreted as exploratory evidence consistent with the cross-sectional and single-source research design rather than as confirmation of causal mechanisms. Overall, the results suggest that psychological resources are meaningfully associated with sustainable entrepreneurship among women micro and small entrepreneurs, while financial constraints shape the extent to which these psychological resources are reflected in sustainability-oriented practices.

The positive association between entrepreneurial self-efficacy and sustainable business practices (H1) suggests that women entrepreneurs who believe in their capacity to identify opportunities, develop offerings, think creatively, and commercialize ideas are more likely to report responsible and sustainability-oriented business conduct. From a Social Cognitive Theory perspective, self-efficacy may motivate goal-directed behavior extending beyond immediate survival toward longer-term and broader-impact outcomes [35]. This association is especially meaningful in the Palestinian context where sustainable practices among micro and small enterprises often require confidence to pursue social, environmental, and economic priorities despite acute survival pressures, gendered household expectations, and weak institutional incentives for responsible conduct [8,16]. For Palestinian women micro entrepreneurs operating food processing units, handicraft enterprises, and home-based service activities, self-efficacy may represent the psychological foundation that sustains commitment to practices such as waste reduction, local sourcing, fair worker treatment, and community contribution, even when short-term financial returns from these practices are limited. The association is consistent with studies linking entrepreneurial self-belief and psychological capital to responsible and adaptive business behavior [32,54]. It also complements recent fragile-context evidence from Alshebami [23], who showed that micro and small business continuity in crisis conditions is associated with cashless mobile access, cash-flow management skills, and technology-related experience. Whereas that study foregrounds digital and financial continuity capabilities as drivers of enterprise survival under disruption, the present study extends this conversation by showing that psychological self-belief is also meaningfully associated with sustainability-oriented practices, suggesting that both material capabilities and psychological resources matter for responsible business conduct among micro entrepreneurs in fragile settings.

The positive associations between entrepreneurial self-efficacy and resilience (H2) and between resilience and sustainable business practices (H3) together suggest that resilience may operate as a practical psychological resource through which women entrepreneurs maintain responsible business conduct under chronic uncertainty, rather than functioning only as a survival or recovery trait. This interpretation is consistent with Fatoki's [38] evidence from South African SME entrepreneurs. The Palestinian setting adds to this international body of evidence in a theoretically important way because adversity is not episodic but continuous, shaped by restricted mobility, financial exclusion, gendered constraints, weak institutional support, and market fragmentation. In such a context, resilience may support not only recovery after disruption but also the everyday decisions that protect resources, maintain community ties, and sustain continuity-oriented business conduct. This interpretation resonates with Althalathini's [9] concept of affective-political endurance among Palestinian entrepreneurs, in which remaining operational and maintaining ethical conduct under occupation constitutes an ongoing form of adaptive agency rather than a recovery response. Similar resilience-to-sustainability associations have been observed among women entrepreneurs in Ethiopia [7], where entrepreneurial resilience was positively associated with business sustainability among micro and small enterprises, and among rural women in Iran [58], where resilience components including adaptability and resource management were linked to sustainable business outcomes. Among Lebanese women entrepreneurs navigating compounding crises, Kuran and Khabbaz [18] found that

mission-driven meaning-based coping, a dimension closely related to resilience, was essential for sustaining entrepreneurial persistence and responsible conduct. In Ghana's informal economy, Appiah et al. [19] similarly found that women entrepreneurs deployed adaptive tactics and workarounds to build sustainable livelihoods within resource-constrained institutional environments. Taken together, these converging findings across fragile and developing economy contexts suggest that the resilience-to-sustainability association may be broadly relevant, while its strength is likely shaped by local financial systems, institutional arrangements, and gender norms.

The partial mediation finding (H4) indicates that self-efficacy is associated with sustainable business practices both through resilience and through a direct pathway, suggesting that psychological confidence may relate to sustainability-oriented conduct through at least two distinct channels. This association is central to the theoretical contribution because it moves beyond established self-efficacy, resilience, and performance models by directing attention to sustainable business practices in a fragile, gendered, and micro-enterprise context, where the pathway from psychological confidence to responsible conduct has not previously been empirically examined [8,21]. Sharma and Rautela [39], examining small businesses in India during crisis conditions, similarly found that self-efficacy and resilience are interdependent capacities that jointly shape positive business outcomes, consistent with the partial mediation pattern observed here. Madawala et al. [40] further confirmed among women entrepreneurs in tourism that self-efficacy functions as a foundation for resilience during crisis, reinforcing the developmental logic of the mediation pathway. The partial nature of the mediation also suggests that self-efficacy and resilience are both relevant but not interchangeable psychological resources for sustainability-oriented behavior, with each contributing independently to the outcome.

The negative moderating association of financial constraints on the resilience-to-practices pathway (H5) is consistent with Conservation of Resources Theory, which predicts that psychological resources may be less effectively translated into productive outcomes when material resources are severely depleted [27]. This association is especially important for women micro and small entrepreneurs in Palestine, where limited collateral, unstable cash flow, restricted credit access, and dependence on informal finance can make even modest sustainability practices difficult to implement regardless of the entrepreneur's psychological strength. The finding suggests that resilience does not lose its relevance under financial pressure, but that its practical expression in sustainable business conduct may require a minimum level of financial slack to be realized. Alshebami [34] similarly found that entrepreneur-owned funds were associated with entrepreneurial self-efficacy and business continuity among micro and small enterprises under adverse conditions, confirming that material resources and psychological resources interact rather than substitute for each other. Manu et al. [44] found among female entrepreneurs in Ghana that financial resilience was an important enabler of positive business outcomes, while Odoch et al. [45] observed that financial resource availability shaped how effectively women-owned SMEs could deploy their psychological and social capital. Agrawal et al. [47] further identified financial limitations as the primary resource-based barrier preventing sustainable business development, consistent with the moderation logic of this study.

The moderated mediation finding (H6) provides the integrative insight of the study: self-efficacy and resilience are associated with sustainable business practices, but their practical expression is conditioned by the material resource environment in which women entrepreneurs operate. This association strengthens the integration of Social Cognitive Theory and Conservation of Resources Theory. SCT explains how self-efficacy and resilience represent agency-based psychological resources, while COR theory explains why these resources may be less actionable when financial scarcity is severe. The theoretical

novelty lies not in claiming that self-efficacy and resilience are new constructs, but in demonstrating how their association with sustainable business practices is conditional on financial constraints in a fragile, gendered, micro and small enterprise context where this conditional process has not previously been tested. Jneid [51], examining entrepreneurial self-efficacy among refugees in Lebanon, found that individual purpose and psychological confidence were positively associated with entrepreneurial behavior in a MENA fragile context, but also highlighted that material and institutional constraints shaped how these psychological resources were converted into entrepreneurial action. This is precisely the conditional logic supported in the present study, where financial constraints attenuate the entire psychological pathway from self-efficacy through resilience to sustainable practices, suggesting that psychological empowerment and financial inclusion must be addressed simultaneously rather than independently. Together, the supported associations reveal a coherent picture: self-efficacy and resilience form a sequential psychological pathway associated with sustainable entrepreneurship, and the strength of this pathway is materially conditioned by financial resource availability.

5.2. Theoretical Implications

This study makes four original theoretical contributions. First, it integrates Social Cognitive Theory [24,25,35] and Conservation of Resources Theory [26,27,46] into a unified association-based framework explaining how psychological resources and material constraints jointly relate to sustainable business practices among women micro and small entrepreneurs in a fragile economy. This integration responds to the limitation of prior models that treat entrepreneurial agency and material conditions as separate rather than interdependent influences on sustainable conduct [47,104]. SCT explains why self-efficacy may be linked to resilience and responsible action, while COR theory explains why resource scarcity may weaken the translation of resilience into sustainable practices. Together, these frameworks generate a conditional psychological resource activation logic that extends beyond established self-efficacy and resilience models by specifying the material boundary conditions under which psychological resources can be enacted as sustainability-oriented behavior. This integration is theoretically distinct from prior work that has used either SCT or COR alone, and from studies that have examined self-efficacy, resilience, and performance without situating these relationships within the gendered and fragile economy conditions that shape whether psychological resources can be practically applied [33,39].

Second, the study contributes to sustainable entrepreneurship research by specifying entrepreneurial resilience as a mediating mechanism between self-efficacy and sustainable business practices. This specification moves beyond established self-efficacy, resilience, and performance relationships by shifting analytical attention to sustainable business practices rather than venture survival, growth, or financial performance as outcome constructs [7,58]. In doing so, the study positions sustainability as a behaviorally embedded outcome in micro and small enterprises, where social, environmental, and economic responsibility may appear through everyday practices such as waste reduction, local sourcing, and community support rather than formal sustainability reporting or certification systems. This framing is especially relevant for women micro entrepreneurs in conflict-affected and developing settings, where sustainability is often practiced informally and without institutional recognition [4,19].

Third, the identification of financial constraints as a boundary condition that shapes the resilience-to-sustainability association and the broader indirect pathway from self-efficacy to sustainable business practices extends Conservation of Resources Theory into the domain of women's sustainable entrepreneurship. The finding specifies a previously untested boundary condition of the psychological capital mechanism, demonstrating

that the association between psychological resources and sustainable outcomes is not unconditional but contingent on the material resource environment [44,45]. This contributes to the contextual entrepreneurship literature by identifying the material threshold at which financial adversity attenuates the behavioral expression of psychological strength [56,62]. It also directly addresses the concern that relationships between self-efficacy, resilience, and outcomes are already well established, by demonstrating that the novelty of this study lies in the conditional process logic rather than in the individual links, and specifically in testing this conditional process among women micro and small entrepreneurs in a conflict-affected fragile economy where it has not previously been examined [8,21].

Fourth, the empirical context constitutes a theoretical contribution in its own right. The West Bank is not treated merely as a difficult research site, but as a theoretically meaningful setting where conflict exposure, financial exclusion, mobility restrictions, informal entrepreneurship, and gendered expectations jointly shape entrepreneurial behavior in ways that differ from episodically disrupted or institutionally supported settings [9,11]. This aligns with Shamieh and Althalathini [17], who argue that women's entrepreneurship in Arab conflict contexts requires contextually grounded theoretical frameworks that account for the intersection of gender, conflict, and economic necessity. The confirmation that the core psychological associations operate and remain structured in this setting, with clearly defined material boundary conditions, extends the geographic and contextual scope of sustainable entrepreneurship theory and provides an exploratory benchmark for future comparative research in fragile economies.

5.3. Practical, Social, and Economic Implications

The findings offer several practical implications for policymakers, microfinance institutions, NGOs, universities, and entrepreneurship support agencies working with women micro and small entrepreneurs in Palestine and comparable fragile economies. The central practical message is that psychological empowerment and financial inclusion should be designed and delivered together rather than sequentially. The study shows that self-efficacy and resilience are associated with sustainable business practices, but that these psychological resources are less likely to be reflected in responsible business conduct when financial constraints remain severe. Each recommendation below is grounded directly in the study's findings.

For policymakers, the finding that financial constraints weaken the resilience-to-sustainability association points to the need for targeted financial policies that reduce the material barriers preventing women micro and small entrepreneurs from enacting sustainable practices. Practical measures could include collateral-light or collateral-free lending products specifically designed for informal and home-based women-owned enterprises, small sustainability performance grants linked to demonstrable responsible practices such as waste reduction or local sourcing, subsidized working-capital facilities for micro and small production-oriented businesses, and simplified access procedures for institutional financial support. These interventions would directly address the resource depletion conditions identified in the study as limiting the practical expression of resilience among women entrepreneurs in fragile institutional environments.

For microfinance institutions such as FATEN and Vitas Palestine, the moderated mediation finding indicates that credit provision alone is insufficient to activate the full pathway from psychological resources to sustainable practices. Loan products should therefore be bundled with resilience-building mentoring, cash-flow management coaching, financial literacy training, and applied guidance on sustainability-oriented business practices including waste reduction, responsible input sourcing, fair treatment of workers, and local market continuity. This bundling approach responds directly to the conditional pathway identified

in the study and is supported by recent evidence from Manu et al. [44], who found that combining financial access with capability-building strengthened entrepreneurial outcomes among female entrepreneurs in Ghana, and from Alshebami [23], who demonstrated that cash-flow management skills alongside financial access improved micro and small enterprise continuity in fragile settings.

For NGOs and entrepreneurship development agencies, the self-efficacy and resilience findings support the development of structured psychological capacity-building programs. These could include confidence-building workshops focused on opportunity recognition, creative problem-solving, and adaptive decision-making, as well as peer mentoring circles where women entrepreneurs share coping strategies, sustainability practices, and adaptive business experiences. These recommendations align with evidence from Kuran and Khabbaz [18], who found that mission-driven meaning-based coping supported entrepreneurial persistence among Lebanese women navigating compounding crises, and from Madawala et al. [40], who showed that self-efficacy-building interventions helped women entrepreneurs in crisis contexts maintain responsible business conduct. For universities and training institutions, applied modules on sustainable micro-enterprise management covering environmental responsibility, fair labor practices, community engagement, local supply chain use, and long-term continuity planning could help translate awareness into practical action. Donor agencies can further support bundled interventions combining psychological empowerment, financial access, digital tools, and sustainability coaching, particularly for women operating in conflict-affected communities, consistent with the approach recommended by Alshebami [34] for micro and small enterprises under adverse conditions.

The findings also carry broader social and economic implications. Strengthening women's entrepreneurial resilience and reducing financial constraints may contribute to household income stability, local employment creation, poverty reduction, community resilience, and gender-inclusive economic development. In fragile economies, women-owned micro and small businesses often provide essential livelihood support for families and communities even when they operate informally or at modest scale, a pattern well documented in Palestine [10,15] comparable fragile settings such as Tunisia, Jordan, and Lebanon [6] and Ghana [19]. Supporting sustainable business practices among these entrepreneurs can therefore contribute to broader sustainable development objectives aligned with SDG 5 on gender equality, SDG 8 on decent work and economic growth, SDG 10 on reduced inequalities, and SDG 11 on sustainable communities. These social and economic implications should be interpreted cautiously; however, because the study provides association-based exploratory evidence rather than causal proof of social or economic impact.

5.4. Limitations and Future Research Directions

Several limitations should be acknowledged. First, and most directly, the use of purposive non-probability sampling through NGO and microfinance networks means that the sample may overrepresent women entrepreneurs who are already connected to institutional support, training, or financing, and who may therefore differ systematically from unsupported entrepreneurs in their self-efficacy, resilience, and sustainability awareness. The study therefore does not claim statistical representativeness of all Palestinian women micro and small entrepreneurs, and this sampling limitation may introduce positive selection bias in the psychological and sustainability measures. Second, the cross-sectional design means that causal relationships cannot be established with certainty; the findings represent theoretically grounded associations at a single point in time, and longitudinal, panel, or quasi-experimental designs would be needed to determine whether changes in self-efficacy

are followed by changes in resilience and sustainable practices over time. Third, the use of single-source self-reported data introduces the possibility of residual common method bias despite procedural remedies and statistical diagnostics; future studies should incorporate multi-source data such as customer evaluations, NGO or microfinance records, external sustainability assessments, or observational business indicators.

Future research should broaden the model geographically by comparing fragile and non-fragile economies and examining similar relationships across MENA, Sub-Saharan African, South Asian, and Latin American contexts, to determine whether the associations among self-efficacy, resilience, financial constraints, and sustainable business practices generalize beyond the Palestinian setting or vary according to institutional support, gender norms, and financial infrastructure. Additional controls including household income, access to business training, donor support program participation, and microfinance scheme involvement should be incorporated where data are available. Future studies could also extend the theoretical model by introducing additional moderators such as institutional quality, digitalization, social capital, ESG awareness, and access to entrepreneurial ecosystems. Qualitative and mixed-method designs would further enrich understanding of how women entrepreneurs in conflict-affected settings define sustainability in everyday business practice and how gendered expectations shape their capacity to adopt responsible business conduct under chronic adversity.

6. Conclusions

This study explored the associations among entrepreneurial self-efficacy, entrepreneurial resilience, financial constraints, and sustainable business practices among women micro and small entrepreneurs in the West Bank, Palestine. Drawing on Social Cognitive Theory and Conservation of Resources Theory, the study proposed and examined an exploratory moderated mediation framework in which self-efficacy is associated with sustainable business practices both directly and through resilience, while financial constraints condition the strength of the resilience-to-practices pathway. The findings suggest that psychological resources and material conditions jointly shape sustainability-oriented business conduct in fragile economies, and that both must be addressed together to support the development of responsible entrepreneurship among women in institutionally constrained settings.

The study contributes to sustainable entrepreneurship theory by specifying the conditional psychological resource activation logic through which self-efficacy, resilience, and financial constraints jointly relate to sustainable practices in a fragile, gendered, and micro-enterprise context. It also offers actionable guidance for policymakers, microfinance institutions, NGOs, and donor agencies by linking specific findings to concrete interventions combining psychological empowerment and financial inclusion. These conclusions are offered as exploratory and association-based insights from a cross-sectional study using purposive non-probability sampling, and should be treated as a foundation for future longitudinal, comparative, and multi-source research rather than as definitive causal evidence.

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