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How Women Entrepreneurs Drive Business Sustainability? The Role of Financial Inclusion and Strategic Agility




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ABSTRACT

Despite being an important component of Indonesia's small business sector, women entrepreneurs struggle to sustain their businesses. This study aims to examine the influence of financial inclusion and entrepreneurial orientation on business sustainability among female SMEs and investigate the mediating role of strategic agility. This study employed a self-administered survey of 354 women-owned SMEs in Bandung, Indonesia, from March to April 2025. Data were further analyzed using Covariance-Based Structural Equation Modeling (CB-SEM) to test and confirm the proposed conceptual framework. The results indicate that although entrepreneurial orientation and financial inclusion do not influence

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business sustainability, both have significant influences on strategic agility among women-owned SMEs in Bandung. Meanwhile, strategic agility indicates a robust influence on business sustainability among women-owned SMEs. The mediation analysis reveals that strategic agility fully mediates the relationship between entrepreneurial orientation and financial inclusion, as well as financial inclusion and business sustainability.

KEYWORDS: *financial inclusion, entrepreneurial orientation, strategic agility, business sustainability, women entrepreneurs, SMEs*

Introduction

Global business conditions have undergone a fundamental transformation due to persistent supply chain disruptions, heightened post-COVID-19 uncertainty, and fluctuating consumer demand. According to the World Economic Forum (2023), these structural changes have complicated SMEs' ability to maintain product availability and have delayed sales cycles, contributing to inflationary pressures and a slower economic recovery. SMEs, as a primary driver of national and regional economies, are vulnerable to these disruptions (Legenzova et al., 2025). Their survival and resilience require adaptive strategies to address immediate risks and prepare enterprises for sustainability. SMEs are prominent contributors to innovation and employment opportunities, yet their capacity to absorb shocks is weaker compared to larger corporations (Inegbedion et al., 2024).

The contribution of women to the SME ecosystem has become an increasingly significant driver of economic and social development, with women-owned enterprises accounting for nearly 30% of SMEs in developing nations (Singh et al., 2020). Women entrepreneurs equally contribute to inclusive growth through job creation and community empowerment (Ogbari et al., 2024). Nevertheless, empirical evidence shows that women face more persistent barriers than male entrepreneurs, such as narrower business networks and sociocultural constraints (Soomro et al., 2024). The entrepreneurial environment is therefore not uniform, and the systemic disadvantages faced by women hinder the potential of their enterprises to scale or achieve long-term viability (Martins et al., 2024).

Indonesia provides a significant example, as its SME sector forms the foundation of the national economy. SMEs contribute more than 61.7% to the national gross domestic product (GDP) and absorb approximately 97% of the workforce (Kamar Dagang & Industri Indonesia, 2023). Notably,

women entrepreneurs are disproportionately represented, accounting for an estimated 64% of Indonesian SMEs owned or managed by women (Fauzan, 2024). The aforementioned study remarked that Bandung, known as a hub of the creative economy, is home to nearly 55% of women-owned SMEs in the sector. Despite this prominence, the sustainability of these enterprises remains under strain, as women entrepreneurs face a lack of access to reliable market information and adaptive business strategies (Kogut & Mejri, 2022; Kakeesh, 2024).

Business sustainability (BS) has long been conceptualized as the ability of enterprises to continue operations over the long term while balancing economic performance with social and environmental responsibility (Battour et al., 2021; Jindal, 2025). This triple bottom line model underlines that enterprises need to acquire profit without compromising social and ecological integrity (Nogueira et al., 2025). Concerning SMEs, sustainability is influenced by several factors, including access to resources and adaptability. Prior studies have remarked that women-owned SMEs confront some challenges that weaken their BS, including limited access to financing and reduced resilience in times of crisis (Odoch et al., 2025). Scholars have further argued that financial inclusion supports enterprise sustainability through improved access to credit and expanding markets (Eton et al., 2021; Bongomin et al., 2025).

In addition, entrepreneurial orientation (EO) is also a determinant of BS. It is characterized by proactiveness, innovativeness, and risk-taking (Wach et al., 2023). Furthermore, strategic agility (SA), defined as the capacity to respond quickly and flexibly to environmental change, has emerged as a critical variable in volatile contexts (Shams et al., 2021). Despite research examining individual constructs, there remains a paucity of studies that integrate these variables into a unified framework to deal with women SMEs' sustainability. Existing studies consider financial inclusion in terms of general access to credit, without exploring its interaction with EO in promoting BS (Han & Zhang, 2025; Chibueze et al., 2025). While SA has been recognized as essential for organizational resilience, its role in driving BS among women-owned SMEs is not yet sufficiently discovered (e.g., Ahammad et al., 2020; Xing et al., 2020).

Furthermore, women entrepreneurs in developing economies, such as Indonesia, remain underrepresented in empirical research on SME sustainability. This gap limits the capacity to design policies and interventions that address their unique needs. The present study aims to fill

the gaps and analyze the combined influence of financial inclusion, EO, and SA on the sustainability of women SMEs in Bandung. This study contributes to the literature on entrepreneurship and BS in three distinct ways. First, it expands theoretical understanding by integrating financial inclusion, EO, and SA into a single model that is relevant to BS.

Second, it contributes by situating the analysis within Bandung, a unique study area and a leading center of Indonesia's creative economy, where women SMEs form a majority of enterprises yet continue to struggle with sustainability challenges. Third, the study provides practical implications for policymakers and practitioners to promote entrepreneurial capability and enhance organizational agility. The findings are expected to inform targeted interventions that empower women entrepreneurs to contribute more effectively to national economic development.

Literature Review

Triple Bottom Line

This study employed the Triple Bottom Line (TBL) model developed by Elkington (1994) as a foundation for comprehending the sustainability of women SMEs. TBL integrates three dimensions of sustainability: profit (economic benefits), people (social welfare), and planet (environmental conservation) (Singh & Srivastava, 2022). The aforementioned study indicates that the TBL framework is relevant to SMEs that impact economic, social, and environmental aspects. According to TBL, it posits that business sustainability is an outcome variable influenced by financial inclusion (FI) in driving access to financial resources, entrepreneurial orientation (EO) in adopting sustainable practices and leveraging opportunities that support all three TBL aspects simultaneously (Caha et al., 2024), and strategic agility (SA) in responding to market changes that increasingly care about sustainable products (Al Taweel & Al-Hawary, 2021).

Financial Inclusion, Strategic Agility, and Business Sustainability

Financial inclusion (FI) constitutes a key factor in supporting women entrepreneurs (Abdallah et al., 2025; Antonijević et al., 2024). It provides a foundation for adequate financial access to support business sustainability (BS) among women SMEs through strategic agility (SA). FI is defined as

the process of ensuring that individual and business actors have access to quality financial products and services at affordable costs (Chitimira & Warikandwa, 2023). It involves account ownership and the use of financial services to raise welfare (Kodariyah et al., 2025). Some prior works (e.g., Leong et al., 2023; Wijewardena & Rammal, 2025) revealed that FI provides SMEs access to affordable financial products and essential transactional services can support long-term planning regarding capital allocation and investment, which is prominent for BS. This is particularly relevant for women entrepreneurs in Bandung, who often face structural constraints such as limited access to formal finance and reliance on informal funding sources. This is consistent with Sobhan and Hassan (2024), who found that women entrepreneurs face structural challenges, such as limited access to formal financial services, which underlines the importance of financial digitalization in improving operational efficiency and expanding market reach.

SA refers to an organization's ability to deal with changes flexibly (Kale et al., 2019). Also, a study stated that the automation and digitization of workplaces pose a threat to women's business (Mingaleva & Shironina, 2021), which raises the need for SA to deal with this issue. SA focuses on three main elements, including strategic sensitivity, resource fluidity, and leadership unity (Al Taweel & Al-Hawary, 2021). Bocken and Geradts (2020) explained that FI provides SMEs access to experiment with new products and takes bolder strategic steps, which is then strengthened by SA. Siddik et al. (2023) also added that FI helps to build organizational capability through access to financial technology and financial management training that can further promote SA in facing market changes. In Bandung, SMEs operate in competitive retail, culinary, and creative industries (Maulida et al., 2023). FI through digital payments, platform-based lending, and mobile banking supports faster resource reallocation. BS integrates economic, social, and environmental aspects that enable businesses to deliver sustainable profits and minimize negative environmental impacts (Jindal, 2025). Additionally, prior studies (e.g., Yang et al., 2022; Peter et al., 2025) reported that FI has been shown to ease financing constraints and improve access to business information, which can enhance strategic decision-making and agility. Hence, the first set of hypotheses is presented below.

H1. FI influences BS

H2. FI influences SA

Entrepreneurial Orientation, Strategic Agility, and Business Sustainability

EO presents as a motor that creates a behavioral foundation for developing SA in achieving BS for female SMEs. Some studies (e.g., Devi et al., 2019; Corrêa et al., 2022) defined EO as an approach that reflects attitudes, actions, and decision-making processes driven by innovation, proactivity, and risk-taking propensity. The innovation dimension in EO drives SME to develop new products and services, while the proactivity dimension enables them to anticipate market changes (Ahmed & Wahab, 2019). Risk-taking propensity as the third dimension of EO proposes mental readiness to exploit uncertain business opportunities (Corrêa et al., 2022). These dimensions facilitate the development of strategic sensitivity and resource fluidity, which are the main components of SA. There is some consensus that EO impacts business sustainability by fostering innovation, proactiveness, and risk-taking, which are essential for adapting to market changes and sustaining competitive advantage (Jallad & Karadas, 2024; Ooi et al., 2025).

Some prior works (e.g., Kale et al., 2019; Shams et al., 2021) identified three main elements of SA: strategic sensitivity, resource fluidity, and leadership unity. Ahammad et al. (2020) and Koç et al. (2022) explained that SA helps SMEs to optimize innovation resulting from EO and accelerate responses to market changes. In female SMEs, SA can be strengthened by EO through optimization of limited resources and product innovation processes (Alborathy et al., 2023). This relationship is relevant for SMEs in Bandung, where intense competition in retail, culinary, and creative industries require rapid adaptation to consumer preferences (Maulida et al., 2023), as well as to confront challenges to their development and sustainability (Lestari et al., 2025). At the same time, BS is achieved through the integration of EO and SA to create sustainable value creation. BS requires organizational capability to maintain long-term operations while providing benefits to stakeholders (Bui, 2020). BS indicators such as financial stability, business growth, and customer satisfaction are achieved through the synergy of EO and SA in facing the business environment (Peter et al., 2025). Thus, the following hypothesis is presented.

H3. EO influences BS

H4. EO influences SA

H5. SA influences BS

Strategic Agility as a Mediator

As a mediator, SA plays an essential part in the linkage between organizational and entrepreneurial factors toward BS. According to the Dynamic Capabilities Theory (DCT), organizations achieve sustainability through their capacity to sense opportunities and reorganize operations in response to changing environments (Teece et al., 1997). Within the Resource-Based View (RBV), financial inclusion and entrepreneurial orientation are valuable and distinct resources that require adaptive utilization to sustain competitive advantage (Barney, 1991). Preliminary investigation (e.g., Ahammad et al., 2020; Doz, 2020) remarked that SA drives a contingent effect that enables organizations to optimize the utilization of internal capabilities and EO according to external environmental conditions. Kale et al. (2019) and Shams et al. (2021) explained that high SA raises the positive impact of EO on BS through enhancing organizational capability and vice versa. The mediation path of SA can be explained by strategic sensitivity, resource fluidity, and leadership unity, which promote adaptive capacity. Al Taweel and Al-Hawary (2021) stated that strategic sensitivity will help organizations detect weak signals from environmental changes. Concerning SMEs, SA helps translate financial and entrepreneurial resources into responsive actions that support long-term sustainability (Abuanzeh et al., 2022). Thus, the last set of hypotheses is provided below.

H6. SA mediates FI and BS

H7. SA mediates EO and BS:

Methods

Study Design

This study adopted a quantitative approach with a descriptive explanatory design to identify and analyze the influence of financial inclusion (FI) and entrepreneurial orientation (EO) on business sustainability (BS) among female SMEs in Greater Bandung with a total of seven hypotheses. This study also captures the mediating role of strategic agility (SA) for these linkages. The analytical method chosen is Structural

Equation Modeling (SEM) using SmartPLS 4, which enables the simultaneous testing of complex relationships among variables and provides estimates of both direct and indirect effects within a comprehensive structural model. The selection of CB-SEM is based on its capability to handle multiple relationships and provide statistical efficiency in analyzing conceptual models involving mediation variables, as well as its ability to confirm the proposed model.

Population and Sample

The population in this study consisted of all women SME business actors in Greater Bandung, Indonesia. It was selected based on Bandung's strategic position as a creative economy center with a rapidly developing SME ecosystem. According to data from the Department of Cooperatives and SMEs of Bandung City (2022), the Food and Beverage (F&B) sector comprises nearly 40% of total SMEs, with approximately 55% owned by women, resulting in a total research population of 4,485 women business units based on 2025 data from DISKOPUKM Bandung City. A simple random sampling method was applied, yielding 354 respondents, with a 95% confidence level, 5% margin of error, and a 50% population proportion.

Instruments and Data Collection

This study used a closed-ended questionnaire with a 5-point Likert scale developed based on an extensive literature review (see Appendix 1). The five main constructs in this study were developed as follows: FI with six items adapted from ElDeeb et al. (2021), EO with six items based on Susanto et al. (2023), SA with six items adapted from Uddin et al. (2023), and BS with six items based on Leesatapornwongsa et al. (2023). Data collection utilized questionnaires in the form of Google Forms, which were distributed to women F&B SMEs in Greater Bandung. In the study, respondents were assured anonymity to protect their identities and encourage honest participation. This was achieved through informed consent, where participants were briefed on how their data would be used and that their personal details would remain confidential. Any identifiable information was either removed or anonymized, and data were securely stored.

Data Analysis

The obtained data were further estimated using CB-SEM with SmartPLS version 4, selected for its robust graphical capabilities compared to AMOS. CB-SEM was chosen for its capability to evaluate multiple relationships and confirm the proposed model. The analysis followed a two-stage process: measurement model evaluation and structural model assessment. The measurement model was assessed through Confirmatory Factor Analysis (CFA). Also, this stage evaluated construct reliability, convergent, and discriminant validity using metrics, such as Cronbach's alpha, composite reliability (CR), average variance extracted (AVE), and loading values. Following the measurement model evaluation, the structural model was tested, focusing on the direct relationships between latent variables. Bootstrapping with 5000 resamples was employed to evaluate the significance of the path coefficients and indirect effects, providing robust standard errors for more reliable results.

Results and Discussion

Validity and Reliability

Table 1 shows the validity and reliability estimations. The financial inclusion (FI) variable has loading factor values of 0.862-0.965, entrepreneurial orientation (EO) ranging from 0.920-0.964, strategic agility (SA) ranging from 0.881-0.968, and business sustainability (BS) between 0.693 and 0.961. All indicators have loadings greater than 0.70, thus considered valid to meet convergent validity. In addition, CA and CR for each measurement item are higher than the threshold. For instance, BS has CA (0.938) and CR (0.923), while EO has CA (0.980) and CR (0.980). In addition, FI has CA (0.974) and CR (0.974). The constructs also demonstrate that the AVE is higher than 0.5, indicating that the constructs possess good convergent validity.

Table 1: Validity and reliability measures

Construct	Loading Factor	CA	CR	AVE
Business Sustainability (BS)		0.938	0.923	0.726
BS1	0.749			
BS2	0.870			
BS3	0.954			
BS4	0.961			
BS5	0.693			
BS6	0.851			
Entrepreneurial Orientation (EO)		0.980	0.980	0.888
EO1	0.943			
EO1	0.930			
EO3	0.920			
EO4	0.964			
EO5	0.957			
EO6	0.940			
Financial Inclusion (FI)		0.974	0.974	0.843
FI1	0.878			
FI2	0.930			
FI3	0.940			
FI4	0.965			
FI5	0.930			
FI6	0.919			
Strategic Agility (SA)		0.970	0.971	0.871
SA1	0.881			
SA2	0.957			
SA3	0.939			
SA4	0.968			
SA5	0.919			

Source: Author's calculation

Furthermore, this paper also tests for discriminant validity using the Fornell-Larcker Criterion. The bold values in Table 2 represent the square root of AVE ($\sqrt{\text{AVE}}$) for each construct, which is higher than that of other constructs in the table. In detail, the BS with a value of 0.852 is greater than the correlation values with other variables below it. Indeed, for other variables involved, including EO, FI, and SA.

Table 2: Discriminant validity

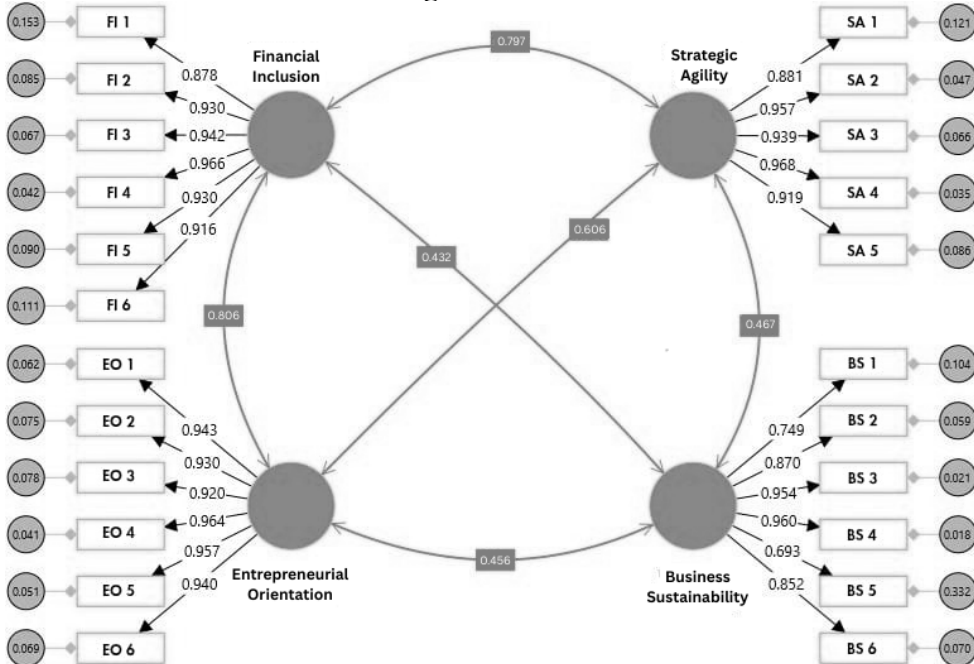
	BS	EO	FI	SA
Business Sustainability (BS)	0.852			
Entrepreneurial Orientation (EO)	0.456	0.942		
Financial Inclusion (FI)	0.429	0.807	0.918	
Strategic Agility (SA)	0.467	0.930	0.798	0.933

Source: Authors' calculation

Confirmatory Factor Analysis (CFA)

The measurement model also covers the CFA and its model fit. As shown in Table 3 and Figure 1, the CFA results include absolute fit with RMSEA = 0.066 (<0.08) and GFI = 0.887 (0.80-0.90), incremental fit with AGFI = 0.855 (0.80-0.90), CFI=0.945 (>0.90), TLI=0.937 (>0.90), and Chi-square/df=2.160 (<3.000). Although GFI and AGFI are below 0.90, these values are still acceptable as minimum thresholds, where 0.80 for GFI and

Figure 1: CFA



Source: Authors' calculation, SmartPLS output

0.90 for AGFI, indicating the model can be accepted as a marginal fit (Dash & Paul, 2021). To find this model fit, we deleted one item for SA.

Table 3: Model of fit

	Estimated model
P value	0.000
ChiSqr/df	2.160
RMSEA	0.066
GFI	0.887
AGFI	0.855
TLI	0.937
CFI	0.945

Source: Authors' calculation, SmartPLS output

Structural Model

After accomplishing the measurement model, this study proceeds with the structural model. In this stage, we test the predictive capability based on R² values. R² indicates greater explanatory power on a range from 0 to 1 (Hair et al., 2019). R² values of 0.75, 0.50, and 0.25 explain substantial, moderate, and weak effects, respectively. For BS is 22.7%, which indicates that BS can be explained by EO, FI, and SA. While the R² for SA is 92.3%, showing that SA can be explained by EO and SA with a robust relation (see Table 5).

Table 5: R² estimation

	R-squared
Business Sustainability	0.227
Strategic Agility	0.923

Source: Authors' calculation, SmartPLS output

Hypothesis Testing

The analysis (Table 6 and Figure 2) shows that EO influences SA ($\beta = 0.140, t = 3.336, p = 0.001$), but it failed to drive BS ($\beta = 0.057, t = 1.498, p$

= 0.135). This study provides evidence that FI also failed in impacting on BS ($\beta = 0.037$, $t = 1.284$, $p = 0.200$), but it can drive SA ($\beta = 0.737$, $t = 21.642$, $p < 0.001$). This study also demonstrates that SA has a significant influence on BS ($\beta = 0.895$, $t = 23.557$, $p < 0.001$). In addition to having a direct effect, SA can play a role as a mediator.

Table 6: Hypotheses estimation

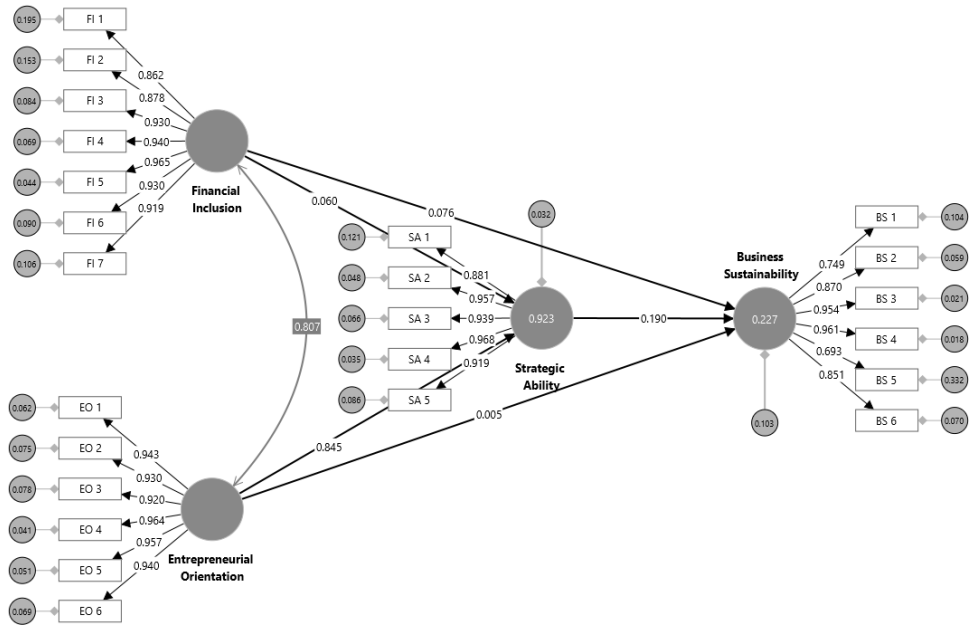
	Original sample	T statistics	P values	Decision
H1. FI → BS	0.037	1.284	0.200	Not confirmed
H2. FI → SA	0.140	3.336	0.001	confirmed
H3. EO → BS	0.057	1.498	0.135	Not confirmed
H4. EO → SA	0.737	21.642	0.000	confirmed
H5. SA → BS	0.895	23.557	0.000	confirmed
H6. EO → SA → BS	0.660	15.022	0.000	Full Mediation
H7. FI → SA → BS	0.126	3.315	0.001	Full Mediation

Source: Authors' calculation

Note. EO =entrepreneurial orientation, FI=financial inclusion, BS=business sustainability, SA=strategic agility

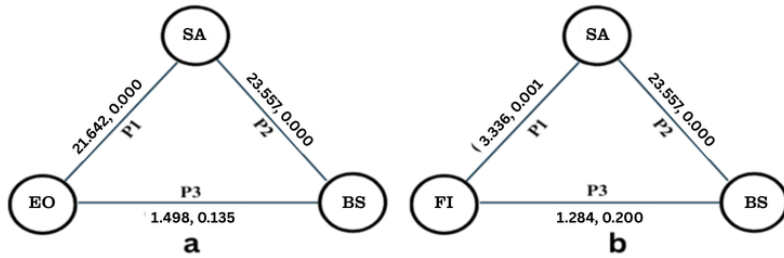
Indirect effect is provided using the bootstrapping method. As illustrated in Figure 3, based on Hair et al. (2021) mediation analysis, the direct effect (p3) between EO and FI variables on BS was examined. The indirect effect represents the strategic agility mediator in the connection between EO and FI on BS. The type of mediation was determined through mediation analysis procedures. Figure 3(a) shows a non-significant effect with a p3 value of 1.498 (>1.96) and 0.135 (<0.05). Indeed, Figure 3(b) shows a non-significant effect with a p3 value of 1.284 (>1.96) and 0.200 (<0.05). The indirect effect (p1×p2) indicates a significant indirect influence. The mediation estimation (Figure 3a), the EO–SA (p1) and SA–BS (p2) pathways are significant with positive directions. Meanwhile, EO–BS (p3) shows a non-significant influence. According to Zhao et al. (2010), this pattern is classified as indirect-only mediation or full mediation (see Table 7).

Figure 2: Structural model



Source: Authors' calculation, SmartPLS output

Figure 3: Mediating estimation



Source: Adapted from Hair et al. (2019)

Table 7: Decision for mediating estimation

Path	p3	p1×p2	Mediation Type
EO → SA → BS	Not significant	Significant	Full mediation
FI → SA → BS	Not significant	Significant	Full mediation

Source: Authors

Note. EO =entrepreneurial orientation, FI=financial inclusion, BS=business sustainability, SA=strategic agility

Discussion

In this study, financial inclusion (FI) shows no significant direct influence on business sustainability (BS), thereby rejecting the first hypothesis. This finding differs from Lestari et al. (2025), who emphasized the direct role of FI in supporting performance and BS among women entrepreneurs in Indonesia. This is also contrary to a prior study by Abdallah et al. (2025), which stated that FI is prominent for women entrepreneurs in the four Gulf countries and five Western Balkan countries. The explanation to support this finding is that women entrepreneurs in Bandung face challenges such as high banking costs, cultural norms, and limited financial education, which hinder their FI (Vong et al., 2014; Kodariyah et al., 2025).

In this study, FI successfully influences strategic agility (SA), confirming the second hypothesis. For women SMEs, adequate financial access enables greater flexibility in resource allocation and encourages strategic experimentation (Purwoto et al., 2025). In line with Chauvet and Jacolin (2017), the integration of financial technology into FI stimulates adaptive capabilities and escalates business resilience. Considering this matter, some studies (e.g., Abdallah et al., 2025; Antonijević et al., 2024) suggested enhancing FI among women entrepreneurs through education and empowerment.

The next finding indicates that entrepreneurial orientation (EO) failed to influence BS, rejecting the third hypothesis. This finding aligns with Abbas et al. (2022), who pointed out that EO requires mediation to deliver optimal impact on business performance. The fundamental explanation for this unexpected outcome is due to the fact that high EO among women SMEs does not automatically provide BS without adequate strategic agility (SA). In this context, high EO cannot ensure business sustainability without adequate strategic support. At the same time, another study remarked that EO promotes women entrepreneurs instead of BS (Umar et al., 2023). In addition, cultural factors can explain why women entrepreneurs in Bandung, Indonesia, face traditional expectations that restrict decision-making freedom and risk-taking behavior. Consistent with the Triple Bottom Line (TBL) theory, BS demands the integration of economic, social, and environmental dimensions (Gimenez et al., 2012). Therefore, innovation, proactivity, and risk-taking propensity inherent in EO must be transformed through SA to achieve impact on BS.

The subsequent finding reveals that EO influences SA, confirming the fourth hypothesis and supporting prior studies (Aloulou et al., 2024; Satar et al., 2025), which posited that EO facilitates the development of SA through adaptive capabilities. Concerning women entrepreneurs in Bandung, high EO stimulates proactivity in identifying opportunities and developing adaptive strategies. This finding indicates that EO is crucial for developing SA, which is vital in overcoming local economic and cultural challenges. A prior study by Rodrigues and Raposo (2011) remarked that EO has been proven to reinforce organizational capacity to respond to changes, which constitutes the essence of SA.

The next result shows that SA can directly influence BS, supporting the fifth hypothesis. This finding is consistent with Al Taweel and Al-Hawary (2021), who noted the prominent role of SA in achieving BS. Some prior studies stated that SA drives women entrepreneurs to respond swiftly to market demands and competitive pressures, thereby sustaining their businesses (Adesanya et al., 2024; Herath, 2023). To enhance SA among women entrepreneurs, Marin et al. (2024) suggested promoting soft skills and training with a focus on crisis management and adaptation to adverse situations. In addition, SA can fully mediate the connection between EO and BS, confirming the sixth hypothesis.

This finding indicated that EO in women SMEs must be transformed through strategic capabilities to enhance BS. Consistent with Elali (2021), SA helps organizations to convert entrepreneurial potential into sustainable competitive advantage and risk-taking to be directed toward adaptive strategies to accomplish BS. In addition, SA has been proven to fully mediate the linkage between FI and BS, supporting the seventh hypothesis. This finding confirms that SA can mediate the linkage between FI and BS by enabling women entrepreneurs to better utilize financial resources and adapt to changing market conditions (Adesanya et al., 2024).

The findings align with the Triple Bottom Line (TBL) framework, which integrates economic, social, and environmental aspects of business sustainability (Gimenez et al., 2012). In this regard, improving financial literacy enhances financial management among women entrepreneurs (Tumba et al., 2022). In addition, an environmental perspective is required to provide innovative programs in promoting BS. Dynamic Capabilities Theory (DCT) also explains that businesses need adaptive capacity to sense opportunities and adjust operations under changing conditions (Teece et al., 1997). Within the Resource-Based View, financial literacy, innovation

capability, and institutional support are valuable internal resources that sustain competitiveness and long-term growth (Barney, 1991). Gender-responsive policies should enhance access to finance and technology for women entrepreneurs.

Conclusion

The study has important theoretical implications. First, this research adds empirical evidence of the direct and indirect links of EO and FI on BS, contributing to the literature on how these factors impact long-term business viability. Second, the study contributes to the literature on strategic management by showing that SA acts as a critical mediator in the connection between EO, FI, and BS. Hence, there is a need for the capability to adapt and deal with market changes. Next, the bottom-line model is that enhancing EO and FI is not sufficient for BS unless SA is developed.

The research findings indicate that SA constitutes a key factor for achieving BS among women-owned SMEs. Therefore, business practitioners need to develop the capability to detect environmental changes and implement adaptive strategies through various initiatives, such as training, workshops, and mentoring programs. The technological aspect is also essential, as digitalization can enhance business responsiveness. Furthermore, although EO does not directly influence BS, this EO contributes robustly to SA. Hence, women SMEs need to sharpen product and process innovation, and risk-taking courage through training and entrepreneurial communities. On the other hand, the incorporation of FI must be conducted by enhancing financial literacy and integrating financial technology into business operations.

Limitation and Future Direction

This study has several limitations that should be considered in the interpretation of results. First, the GFI and AGFI values fall within the marginal fit range (0.887 and 0.855), although still acceptable according to the criteria of Hair et al. (2019), indicating that the model could be strengthened by adding relevant variables or indicators. Second, the R² value for business sustainability of 22.7% indicates that 77.3% of the variance is still explained by other factors outside the model, necessitating

exploration of additional factors that influence the business sustainability of women SMEs. Third, the research focuses on women SMEs, which limits the generalizability of the results to other sectors or contexts; thus, replication studies across different sectors and regions would strengthen the external validity of the findings.

Based on the findings and limitations of this research, several future research directions can be recommended. First, an exploration of additional factors that influence the business sustainability of women's SMEs, such as social support, access to technology, and government policies. Second, the development of longitudinal models to understand the inter-variable relationships in the long-term. Third, comparative research on women-and men-owned SMEs to identify differences in patterns and factors affecting business sustainability. Fourth, a deeper investigation into other mediation mechanisms linking entrepreneurial orientation and financial inclusion to business sustainability.

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Appendix 1. Research Instruments

Business Sustainability	SD D N A SA
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My business focuses on increasing income and reducing expenses to improve efficiency.

My business seeks to enhance financial stability and maintain sound financial health.

My business strives to expand opportunities to sell products to more markets or customers.

My business adopts methods to reduce or properly manage production waste.

My business uses environmentally friendly materials, conserves raw resources, and selects suppliers who demonstrate environmental responsibility.

My business ensures that its products are safe to use and prioritizes customer health and safety.

Entrepreneurial Orientation

My business consistently innovates its products to remain competitive within the local market.

My business introduces new and innovative products to the market.

My business usually acts early in response to anticipated market conditions.

My business continuously seeks new opportunities to address changing market conditions.

My business consistently adapts to meet fluctuating market demands.

My business utilizes emerging opportunities as part of its overall business strategy.

Organizational Capability

My business applies flexible marketing methods such as advertising, promotion, and distribution for various product types.

My business adjusts production processes to align with the characteristics of different products.

My business modifies product strategies to match the needs of targeted markets.

My business provides services that can be adapted according to customer requests.

My business develops products based on customer feedback and specific market requirements.

My business observes how customers use or benefit from its products to improve future designs and performance.

Strategic Agility

My business responds quickly to changes in competitors' strategies.

My business makes product adjustments when customer needs or complaints change.

My business adjusts production levels according to customer demand.

My business applies innovative and modern methods to maintain and increase customer loyalty.

My business actively seeks new customers or markets for its products and services.

My business takes advantage of opportunities in new or emerging markets
