
**Empowering Women Entrepreneurs: Challenges,
Opportunities, and Support Strategies: An exploratory
analysis**

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Abstract

This study explores the challenges, opportunities, and support strategies for women entrepreneurs, focusing on the impact of entrepreneurship policies and sustainability. Using structural equation modeling (SEM) with data from 509 women entrepreneurs, the research investigates the relationships between entrepreneurship policies, challenges, opportunities, and sustainability. Results indicate that entrepreneurship sustainability has a stronger positive influence on creating opportunities than on addressing challenges for women entrepreneurs. Women entrepreneurship policies significantly impact challenges and opportunities. Notably, entrepreneurship sustainability moderates the relationships between policies and both challenges and opportunities, with a stronger effect on the policy-challenge relationship. These findings suggest that while policies are crucial in mitigating challenges, they have less influence on generating opportunities. The study highlights the

importance of integrating sustainability principles into entrepreneurship policies to enhance their effectiveness in supporting women entrepreneurs. This research contributes to the understanding of women's entrepreneurship dynamics and provides insights for policymakers and support organizations to develop more targeted and effective strategies.

Key words: Women entrepreneurship, Entrepreneurship sustainability, Policy effectiveness, Gender equality in business, Entrepreneurial challenges

1. Introduction

Today, women entrepreneurship proves to be a very key factor for economic and social development in the world. Unfortunately, even today more and more women try to open a business of their personal, they have some difficulties and limitations that unite them and that prevent them from contributing equally to the economy (Shahvand et al. 2024). The purpose of this research is to analyse the relationship between women's entrepreneurship policies and issues, particularly opportunities and the part played by sustainability to influence the environment for women entrepreneurs. Currently most governments and organizations across the globe have developed policies and frames works for women entrepreneurs. Nonetheless, the impact of such measures in ending the complex crises that accuse women in business cannot

be described as fully satisfactory. that is why this research aims at filling this gap with an appraisal of the effects of women entrepreneurship policies and strategies on the experiences of challenge and opportunity (Baral et al. 2023). Additionally, since sustainability is a growing factor in organizations' operations, this research examines the mediating role of entrepreneurship sustainability in the link between policies, challenges, and opportunities. Incorporating sustainability as another meta category should be aimed at preventing oversimplification of those elements that determine the functioning of women entrepreneurs (Al Doghan et al. 2022). Furthermore, the study main question is as follows: 'What are the key factors influencing the empowerment of women entrepreneurs, and how do challenges, opportunities, and support strategies interact in this process?'

The relevance of this study, therefore, is that it may help policymakers, supporting organizations or entrepreneurs to know the best approach in enhancing women's business ventures. Through recognizing those particular policies and sustainability practices which affect the entrepreneurial process of women, the present research extends the knowledge concerning support measures to those which would be more effective. This paper is structured as follows: First of all, the analysis of literature related to the topic is provided, and then, the methodology. Moving to

statistical results, then finalising with conclusion, recommendations and limitation.

2. Literature review

2.1 Women entrepreneurship policies and strategies

Women entrepreneurship policies give important tasks for the development of gender equality in the business field and stimulation of the economic growth. Such policies are generally intended to solve the specific problems of women in relation to the creation and management of businesses, including, but not limited to, financing, contacts, and support. They include direct subsidies in the form of special loans or subsidies, training programs aimed at improving the competencies of business entities, and programs related to the reconciliation of work and family life. Also, equal representation of women in leadership positions and corporate boards would go a long way in supporting growth-oriented women entrepreneurs (Corrêa et al. 2024).

Directions in extending the support to those ladies who are already involved in business are closely connected with awareness of the problem and ceation of non discriminative conditions. This may entail creating women-oriented business incubation, growth, or acceleration hubs; creating incubation, growth, or acceleration support programs that allow women

business aspirants to link up with influential successful women business personalities; and supporting contracting of Women Business Enterprises/Women Owned Business Enterprises/Women Controlled Businesses by governments. Another approach is an attempt to eliminate prejudicial aspects when making investment choices; however, more diversification among the VC firms, angel investors, and even more (Tryphone and Mkenda, 2023). Moreover, the development of networks and communities to support women entrepreneurs to share the knowledge and interact with like-minded people might be helpful. When adopted in combination with extensive policies, the outlined tactics will go a long way in boosting women's entrepreneurial success and general economic growth (McAdam et al. 2019).

2.2 Women entrepreneurs Challenges

2.2.1 Access to Financial Resources

The most serious issue affecting women involved in business is the issue of finance, with many of them having restricted access to funds. It is a known fact that females face more challenges in getting credit, funding, and any other means of financing as compared to men. This is because of the gender differences in the lending procedures, low credits due to unfavorable economic standings over the centuries, and inability to provide securities which are mandatory in most commercial loan services.

Moreover, female entrepreneurs claim to be overlooked or underestimated by banks and venture capitalists that offer a denser amount of loans or less beneficial conditions. The above proportions clearly show that women are under-funded in the startups more so, in the venture capital specialties. This financial deficit also negatively influences the start of women's ventures while at the same time constraining their requisite growth and competitiveness (Morsy, 2020; Coleman et al. 2019).

2.2.2 Training and Education

The fourth significant problem that prevails in the social environment and poses great risks for women aspiring to become successful entrepreneurs is the absence of training and education that is directed towards the unique needs of the fair sex. While many programs in general business education are offered, the majority of female business owners complain that adequate tailored programs relevant to their situation and needs when it comes to establishing and growing their businesses are missing. This entails financing training on matters concerning finance, negotiation, and technology, all of which remain a challenge for most women due to limited exposure (Byrne et al. 2019).

Moreover, the education level in developing countries has been a challenge for women entrepreneurs 'to develop a good strategic plan for their businesses or to run it efficiently. These extend to a knowledge deficiency with regards to role models and mentors in

the targeted sectors since women have lesser contact with successful peers who have overcome these hurdles. It should be noted that education and training are the needs that must be satisfied in order to improve the effectiveness of women entrepreneurs and the likelihood of success in entrepreneurial activities (Rudhumbu et al. 2020).

2.2.3 Work-Family Interface

One challenge arise from the office and family fronts is when the management of family responsibilities and business responsibilities prove to be challenging for most women entrepreneurs. This challenge has its roots from an orientation of the past where the woman is expected to take an all-encompassing role of being a wife, mother, and caregiver to elderly parents. With women balancing the roles of an employer, wife, and mother in most cases, entrepreneurship can be a stressful event in their lives, time consuming and thus a possible source of stress and burnout. Inadequate access to affordable or quality childcare or lack of social support can worsen this problem, as some women may have no choice but to compromise between starting a business and raising a family (Sergeevna, 2024).

Third, operating a business from home does away with physical barriers and often results in blurred work-life distinction. This

can affect business growth and stability because women would reduce their business location extension or limit their business interactions with other firms to meet family requirements. Again, the work to family equilibrium affects the decision-making aspect whereby some of the female entrepreneurs decide to locate their business in areas that give them more time with the family, this may affect the potential returns or expansion (Allen et al. 2021; Adisa et al. 2019).

2.3 Women entrepreneurs Opportunities

2.3.1 Learning potential

It is possible to state that the entrepreneurial process engraved with numerous learning opportunities for women, thus giving the latter a fertile ground for self-empowerment. being a business owner, women get the chance to manage different aspects within the business such as finances, business planning and development, leadership and business problem solving. It can be seen that this kind of learning by doing is in many ways more effective than the typical career in a large firm in the development of multidimensional skills (Roos, 2021). In addition, the difficulties that are present in the endeavors of entrepreneur lead to the character developments critical both in the business world as well as in life. There are network meetings, business coaching, and peer support – all types of learning

paradigms through which women can learn from one another, from numerous industries and sectors, and from the market ” (Harris, 2022). Also, the ongoing popularity of distance education and specific entrepreneur-focused programs for women in different countries offers opportunities for preserving and developing further education. Such learning potential does not only increase business know-how but also increases self-esteem and self-confidence needed in asking women to handle more responsibilities in the business world and societal stratum (Ahmed and Hyndman-Rizk, 2020).

2.3.2 Market opportunities

It is pertinent to understand that women entrepreneurs are well placed to fully exploit various opportunities in the market place since they originate from different perception and experiences. The first valuable trend relates to increase in the customer influence, specifically female customers who manage most of family consumption. Females-oriented markets known to be untapped are often understood by female business owners in OFEs because usually male-dominated businesses do not focus on these segments. The advancement of the information technology has also equalized the opportunities since women can participate in digital economy with relatively low entry barriers. Fields such as e-commerce, SMM, and online services are good

for women's startups, which can be successful in such areas (Agarwal et al. 2022).

In addition, equity and diversity have emerged as essential values in contemporary business, which opens promising prospects for women in such fields as supplier diversity or businesses striving for more gender diversity. The new business prospects, that are focused on sustainability and socially responsible actions, are created with the purpose to meet such values, that women entrepreneurs appreciate. Such values include the steps towards environmental friendly products through green technology, production of clothing through ethical means, and the introduction of social business (Miguel and Tonelli, 2023).

2.4 Entrepreneurship sustainability

2.5 Women entrepreneurship policies and strategies and Women entrepreneurs Challenges

Even in the best and most progressive of cases, policies and interventions regarding women entrepreneurs are formulated with the purpose of targeting exactly the challenges that working women entrepreneurs face. The purpose of these programs is the minimization of such factors as limited availability of financial resources, the absence of knowledge, and the clash between work and home responsibilities (Xheneti et al. 2019). Loan policies could mean that loans targeted to women firms should be

arranged categorically in a manner that grants such firms easy access to funds they need due to the main challenge of sourcing for funds. In closing the training and education gap, it can be done through support for education and mentoring programs that can be developed under the government or non profit organizations. It can be recommended to find out the ways of the management of the work-family interface making reference to the recommendations regarding the policies that promote flexible work arrangements and enhance childcare responsibilities (Aristei and Gallo, 2022). However, it should be noted that to what extent such strategies are effective in the attempt to respond to the difficulties can be informed considerably. For some challenges, especially those that are grounded in strongly etched cultural practices and/ or unconscious bias, it might be useful to come up with broader and longer term strategies that have to be used besides policy measures (Hale, 2023).

2.6 Women entrepreneurship policies and strategies and Women entrepreneurs Opportunities

Such steps as those concerning policy and related initiatives regarding women entrepreneurs are involved in the process of creation and development of opportunities for the female entrepreneurs. Measures of this kind can potentially create conditions conducive to the creation of ecosystems, the promotion of innovations, and the creation of new opportunities

and markets. For examples, ‘supplier diversity programs’ that are required by regulation contain a prospectus of a market for firms that are run by women if not managed by them. As the number of choices available multiplies in high-growth technology fields, the best way to achieve the goal of increasing the availability of those choices is to promote women to obtain STEM occupations (Corrêa et al. 2024).

The learning potential of the networks can be enhanced hence the proliferation of policies that supports women business networks and associations to enhance information dissemination and mentoring. However, based on the research findings of this study, it was evident that the policies may not directly contribute much to the generation of opportunities as they do to removing challenges. Nevertheless, based on this, one may infer that while the policies contain the probability to proffer openings, the ability of females with entrepreneurial endeavors to seize such breaks may depend on several factors other than policies’ assistance (Kimbu et al. 2020).

2.7 Women entrepreneurship policies and strategies and Women entrepreneurs Opportunities and Entrepreneurship sustainability

The relationship between Women’s entrepreneurship policy, Opportunities and feasibility of entrepreneurship is a dynamic and complex structure. The existing proven strategies in the field

of sustainability can open up unique opportunities for women to create value and start new businesses in developing fields like green technology, a sustainable clothing industry, or social entrepreneurship. The research identified common areas with the characteristics that are usually attributed to the number of female entrepreneurs, namely, social responsibility and planning for the future (Ghouse et al. 2021). From the notion of sustainability, there are clear prospects of gains which focus on special policies that assist the women entrepreneurs to gain competitive advantages especially in markets that are increasingly affected by the environmental impacts and social responsibilities. In addition, the study's results show that the measures of sustainability of entrepreneurial activities provide a larger positive impact on the opportunity generation than on issues solving (Méndez-Picazo et al. 2021).

Based on the information provided, it can be deduced that the legal measures that may be most advantageous in creating new business opportunities for women entrepreneurs are the incentives to environmentally sound corporate behaviour. Thus, the finding that sustainability only moderates the link between policies and both opportunities, and problems emphasizes how it is crucial to consider integration of sustainability into the base elements of policies regarding entrepreneurship. As a result, governments are capable of increasing the overall efficiency of the support programs and, in the framework of this process, there

are potential possibilities to enhance the effectiveness of the female-led enterprises (Rajapakse et al. 2022).

Therefore, the proposed Research Model is as follows:

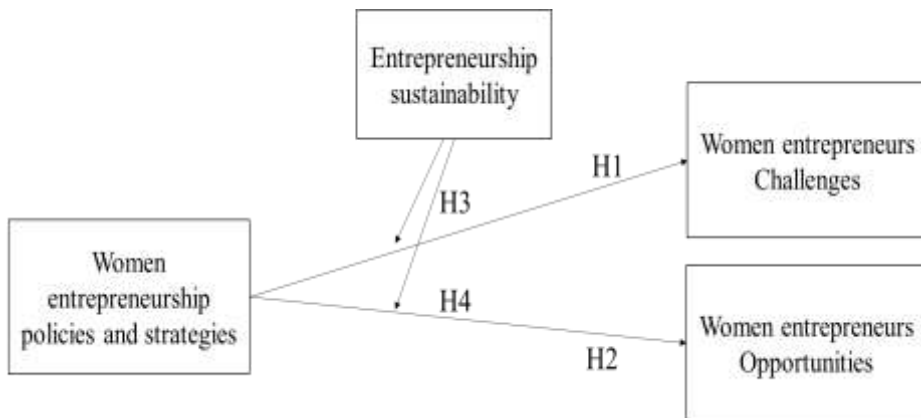


Figure 1: Conceptual model

Source: Developed by the author

Research Hypotheses

H1: Women Entrepreneurship policies and strategies has a significant effect on Women entrepreneurs Challenges

H2: Women Entrepreneurship policies and strategies has a significant effect on Women entrepreneurs opportunities

H3: Entrepreneurship sustainability moderates the relationship between Women Entrepreneurship policies and strategies and Women entrepreneurs Challenges

H4: Entrepreneurship sustainability moderates the relationship between Women Entrepreneurship policies and strategies and Women entrepreneurs opportunities

3. Methods

The present study uses an empirical and descriptive research approach to investigate the factors of women Entrepreneurs such as: Challenges, Opportunities, and Support Strategies. Women entrepreneurs who work to earn their own income having established their own business form the samples for the study. Consequently, the sample for the study was completed through a judgemental nonprobability sampling approach. Spread of questionnaires was done through Google forms and 509 individuals participated in the survey.

$$n = \frac{Z^2 * p * (1 - p)}{e^2} = \frac{(1.96)^2 * 0.5 * (1 - 0.5)}{0.05^2} = 385 < 509$$

Before distributing the questionnaires, a constructive panel study was performed to include the viewpoint of the qualified advisors, and a pilot study by 69 Respondents. The completed questionnaire was

changed to reflect the suggestions given by the officials and employees. The questionnaire developed for the study included four major parts. Beginning with section of A of descriptives then section B contained aspects like This section contained aspects like women entrepreneurship policies and strategies (Siddiqui and Jan, 2019), Women entrepreneurs challenges and its dimensions are Access to financial resources, Training and Education and Work-family interface (Aladejebi, 2020), Women entrepreneurs opportunities and its dimensions are learning potential and market opportunities (Farr-Wharton and Brunetto, 2007), Entrepreneurship sustainability (Hosseininia and Ramezani, 2016).

The collected data were then analyzed using statistic techniques in order to reveal useful information and relations. The bibliometric data collected through the survey was then subjected to a Professional quantitative analysis utilizing Structural Equation Modeling (SEM). Consequently, SEM is favoured in different scholars, as it allows for a testing of the relationships between the variables which are observed and latent at the same time. In particular, this powerful statistical technique allowed the researchers to not only confirm the validity of the proposed research hypotheses but also to develop and estimate a complex model containing both measurement and structure parts.

Thus, SEM analysis was most probably performed using such appropriate software as. Due to this approach, this approach can be analysed direct effects and moderation within the

hypothesized model. The study methodology most probably entailed using confirmatory factor analysis (CFA) to confirm the measurement model and place validity in this case, followed by the use of structural modelling to analyse the relationships between constructs postulated in the hypothesis.

Probably, in the process of assessment of the model's fitness, the attempts have been made to use several goodness of fit measures, such as chi-square statistics, comparative fit index (CFI) and Fornell-Larcker.

It was especially important due to the analytical approach of this study by SEM for hypothesis testing; thus, the study was able to make specific conclusions on the relationships proposed in their research model, which helped them in explaining their research questions and advancing the existing knowledge in the field of study.

4. Statistical Analysis

Table (1): Frequency table for demographics of the sample

	Categories	Frequency	Percentage
Age Group	Less than 30	219	0.43
	30-40	263	0.52
	More than 40	27	0.05
Completed Educational Level	High School	180	0.35
	Undergraduates	264	0.52
	Post-graduates	65	0.13
Firm size	Small	139	0.27
	Medium	370	0.73

Source: Calculations based on 509 women entrepreneurs analysed using SPSS 26

In terms of age, the majority of respondents fall within the 30-40 age group, accounting for 263 individuals or 52% of the sample. This is followed by the Less than 30 age group with 219 individuals (43%), while the More than 40 category represents a smaller portion, comprising 27 individuals (5%). Regarding education level, the largest proportion of respondents are undergraduates, making up 52% of the sample with 264 individuals. High school graduates account for 35% with 180 individuals, and post-graduates represent 13% with 65 individuals. For firm size, the data reveals that a significant majority of the entrepreneurs operate in medium-sized firms, with 370 respondents (73%). Small firms are represented by 139 respondents, making up 27% of the sample.

Table (2): Reliability and Validity analysis on the variables in phenomenon

Variables	Items	Loadings	Outer VIF	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Entrepreneurs hip sustainability	BS1	0.698	1.26	0.658	0.814	0.596
	BS2	0.866	1.54			
	BS3	0.743	1.298			
Women Entrepreneur Challenges	EC1	0.591	1.445	0.812	0.866	0.521
	EC2	0.733	1.653			
	EC3	0.818	2.084			
	EC4	0.772	1.83			

	EC5	0.632	1.386			
	EC6	0.756	2.016			
Women Entrepreneur Opportunities	EO2	0.756	1.251	0.663	0.817	0.597
	EO3	0.792	1.367			
	EO4	0.77	1.286			
Women Entrepreneur Policies	EP2	0.888	1.899	0.728	0.845	0.647
	EP3	0.708	1.475			
	EP4	0.806	1.419			

Source: Calculations based on 509 women entrepreneurs analysed using SmartPLS 3

Observing the VIFs in the study, they were all less than five. This result is consistent with Shrestha (2020) showing there is no multicollinearity in the statements. The reliability was evaluated using the Cronbach Alpha. As shown in Table II, each variable's Cronbach Alpha was higher than 0.6. Therefore, each of the statements can be used in summarizing the included variables in the study (Taber, 2018). To get closer to determining the statements' accuracy in conveying the factors, both the Composite Reliability (CR) and the Average Variance Extracted (AVE) were computed. Each of the factors had a CR above 0.7 and AVE above 0.5, which implies that the assumptions can be applied to take the elements into consideration (Kamis et al., 2020).

Table (3): Fornell-Larcker Criterion for discriminant validity analysis

	Entrepreneurship sustainability	Women Entrepreneur Challenges	Women Entrepreneur Opportunities	Women Entrepreneur Policies
Entrepreneurship sustainability	0.772			
Women Entrepreneur Challenges	0.672	0.722		
Women Entrepreneur Opportunities	0.662	0.701	0.773	
Women Entrepreneur Policies	0.596	0.628	0.654	0.804

Source: Calculations based on 509 women entrepreneurs analysed using SmartPLS 3

The Fornell-Larcker Criterion is a common method used to assess discriminant validity in structural equation modelling. According to this criterion, a construct should have a higher correlation with its own measures than with any other construct in the model, as indicated by the square root of the AVE being greater than the inter-construct correlations. These results indicate that each construct in the model has adequate discriminant validity, as each construct is more closely related to its own measures than to those of other constructs. This suggests that the constructs are distinct from one another and that the measurement properties of model are appropriate.

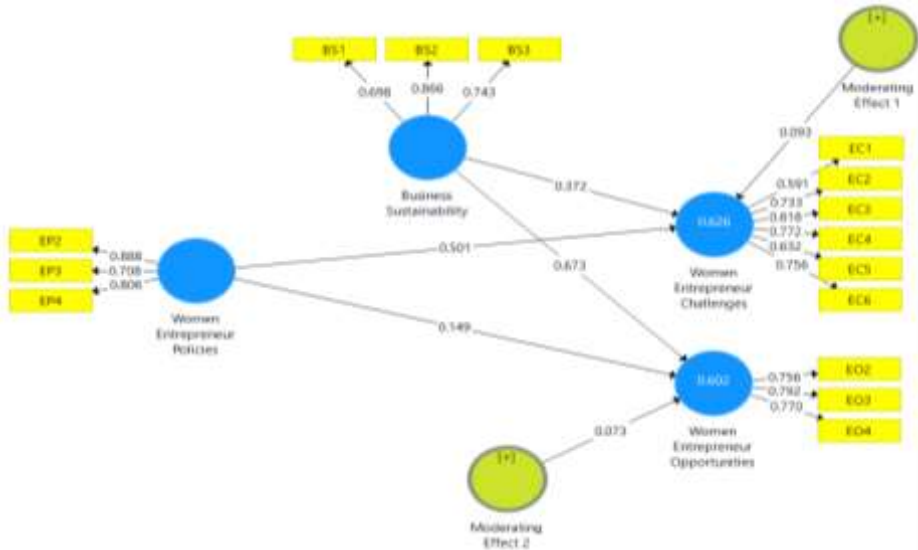


Figure (2): Structural Equation Model for the phenomenon

Source: Calculations based on 509 women entrepreneurs analysed using SmartPLS 3

Figure II shows how the relationships between the variables are built in the Structural Equation Model (SEM). SEM is used to investigate the impact of variables on each other and gives an understanding of the phenomenon. Using basic bootstrapping, 500 sub samples were used in the further analysis.

Table (4): Bootstrapping results of the structural equation model

	Original Sample	Standard Deviation	T Statistics	P Values
Entrepreneurship sustainability -> Women Entrepreneur Challenges	0.372	0.04	9.257	0
Entrepreneurship sustainability -> Women Entrepreneur Opportunities	0.673	0.037	18.062	0
Women Entrepreneur Policies -> Women Entrepreneur Challenges	0.501	0.041	12.292	0
Women Entrepreneur Policies -> Women Entrepreneur Opportunities	0.149	0.042	3.53	0
Moderating Effects				
Moderating Effect of Entrepreneurship sustainability on the relationship between Women Entrepreneur Policies and Women Entrepreneur Challenges	0.093	0.029	3.194	0.001
Moderating Effect of Entrepreneurship sustainability on the relationship between Women Entrepreneur Policies and Women Entrepreneur Opportunities	0.073	0.028	2.648	0.008

Source: Calculations based on 509 women entrepreneurs analysed using SmartPLS 3

The path coefficient of Entrepreneurship sustainability effect on Women Entrepreneur Challenges is 0.372, suggesting a positive significant impact. In comparison, the path coefficient from Entrepreneurship sustainability to Women Entrepreneur Opportunities is significantly higher at 0.673, indicating a stronger positive influence. This comparison shows that Entrepreneurship sustainability has a much greater impact on creating opportunities for women entrepreneurs than on addressing their challenges. Furthermore, Women Entrepreneur Policies have positive significant impact on Women Entrepreneur Challenges with coefficient of 0.501, demonstrating a significant positive effect. In contrast, the path coefficient of the effect of Women Entrepreneur Policies on Women Entrepreneur

Opportunities is 0.149, which is relatively weaker, highlighting that while policies are crucial in mitigating challenges, they have a less significant influence in generating opportunities for women entrepreneurs.

Regarding the moderating effects, the data reveals that Entrepreneurship sustainability significantly enhances the relationships between women entrepreneur policies and both challenges and opportunities. Specifically, the moderating effect of Entrepreneurship sustainability on the relationship between Women Entrepreneur Policies and Women Entrepreneur Challenges is stronger. This indicates that Entrepreneurship sustainability strengthens the positive impact of policies on challenges faced by women entrepreneurs. Similarly, the moderating effect on the relationship between Women Entrepreneur Policies and Women Entrepreneur Opportunities suggest that Entrepreneurship sustainability also enhances the positive influence of policies on creating opportunities. These findings underline the role of Entrepreneurship sustainability in strengthening the effects of supportive policies, thereby contributing to both reducing challenges and increasing opportunities for women entrepreneurs.

Table (5): Model Evaluation Metrics of the structural equation model

	R Square	R Square Adjusted	SSO	SSE	Q ²
Women Entrepreneur Challenges	0.626	0.624	3054	2074.989	0.321
Women Entrepreneur Opportunities	0.602	0.600	1527	987.5	0.353

Source: Calculations based on 509 women entrepreneurs analysed using SmartPLS 3

For Women Entrepreneur Challenges, the R Square value is 0.626, indicating that approximately 62.6% of the variation is explained by the independent variables in the model. The adjusted R Square is slightly lower at 0.624, accounting for the number of predictors and sample size, and suggesting a good fit with minimal model overfitting. The positive Q² value suggests that the model has predictive relevance for this construct (Chin et al., 2020). For Women Entrepreneur Opportunities, the R Square value stands at 0.602, meaning that 60.2% of the variance is explained by the model. The adjusted R Square value is 0.600, indicating a slight adjustment for model complexity. This positive Q² value also indicates good predictive relevance for this construct. These metrics suggest that the model is robust and reliable in capturing the relationships among the variables under study (Chin et al., 2020).

4.6 Discussion

The implications of this research offer a much-needed contribution in understanding and improving the existing knowledge on women's entrepreneurship, focusing on the relationships between the policies, issues, opportunities and sustainability factors. As such, the results are consistent with prior research while, at the same time, providing new insights into these and similar relationships. Like the previous research done by Corrêa et al. (2024), Tryphone and Mkenda (2023), the study supports the proposition of the WEP as key in responding to issues confronting females in business. The strong positive relation between policies and challenges as indicated by the path coefficient of 0.501 is consistent with literature that argues that challenges are strongly in the literature have supported the need for the provision of financial assistance and training and work life balance policies among others (Xheneti et al., 2019, Aristei & Gallo, 2022).

Nonetheless, the present research identifies the following new perspective on policies and opportunities. According to Kimbu et al. (2020), the policies develop and support the opportunities for female entrepreneurs; however, this research enriches the understanding of these factors, evidence that the effect of policies in the opportunities is weaker than in the challenges (path coefficient 0.149). This gap implies that although policies play a vital role in reducing barriers, policy mechanisms seem to be

weaker concerning the creation of opportunities. This study adds to the literature on policy utilisation and raises suggestive implications for revisiting the traditional mode of policy-making. Thus, this work can be considered as a substantial contribution to the prior studies since the proposed model contains the construct of entrepreneurship sustainability. The positive and significant relationship between sustainability and the opportunities dimension conforms with the recent literature calling for the potential of sustainability-focused enterprises for female entrepreneurs (Ghouse et al., 2021; Méndez-Picazo et al., 2021). From the perspective of the above points, this supports a current trend of business strategy that stress sustainable systems as one of the most effective means of achieving competitive advantages and creating new opportunities in global markets including green technology and social business.

Additionally, the mediating role of entrepreneurship sustainability between policies and challenges and opportunities has not been examined in the literature before thus being a contribution of this research. With this discovery, it is recommended that attempts be made to improve the entrepreneurship policies by incorporating sustainability principles a theme of research not well covered in the previous papers. This is in consonant with the view of Rajapakse et al. (2022), who pointed that sustainability factors of support

programs enhance the overall efficiency of support programs for women supported enterprises.

The results also show that its effect is significantly higher for opportunities ($M = 0.673$) than for challenges ($M = 0.372$), which is quite valuable in terms of understanding how the principles of sustainability can be capitalized on in the context of women's entrepreneurship. This implies that sustainability as a strategy might work more as a way of creating opportunities rather than solve existing challenges, and hence, the findings can provide policy makers and support organizations with an insight. The explanatory adequation of model ($R^2 = 0.626$ for challenges and 0.602 for opportunities) gives evidence of its efficiency to detect the relationships among the variables under analysis. The further positive Q^2 values for the interpretable nonlinear relation bring more evidence into the model's predictive significance, enhancing the validity of results.

Thus, the study seems to support many of the findings highlighted in prior literature on women's entrepreneurship; at the same time, it brings fresh insights into the functions of policies and sustainability. Consequently, there is a need for other studies that would highlight the strengths that must be promoted for women entrepreneurs, along with the weaknesses that need to be strengthened and the threats that must be avoided with sustainability as a focus. Subsequent research should examine

further the ways in which sustainability results in improved policy efficiency and generates avenues for female endeavours.

5. Conclusion

The current research offers a meaningful contribution to understanding the multifaceted phenomenon of women's entrepreneurship with the emphasis on the relationship between policies, issues, opportunities and sustainability. Thus, the results show that despite the fact that women entrepreneurship policy helps to solve definite problems, the role of the mentioned policy in the creation of opportunities remains limited. Highlighting, the research reveals the factor of entrepreneurship sustainability in which the role of creating new opportunities for women entrepreneurs has a higher statistically significant positive correlation compared to reducing a challenges factor. This paper also establishes the self-mediation role of sustainability in the associations between the specified policies and both the threats and opportunities in support of entrepreneurship, which indicates sustainability's prospect in amplifying the efficiency of the strategies. These findings have highlighted the need for the incorporation of sustainability practices in the policies and support systems aimed at the enhancement of entrepreneurship with regard to women. In summary, this study fills the gap in knowledge of the antecedents of women entrepreneurs' success

and the implications of this knowledge for policy-making efforts are discussed.

6. Recommendation and limitations

Accordingly, the priorities should be to incorporate sustainability as a concept to strategies for women entrepreneurs by availing relevant policies. It may include training of sustainability conscious programs, promotion of sustainable business practice, and provision of funds for sustainable innovation. What's more, they should be crafted to address difficulties as well as to establish new possibilities to act for the simple reason that these two processes may well call for different mechanisms. In addition, it is suggested that women entrepreneurs' support programs should focus on the areas that are associated with skills and networks linked to the identification and exploitation of M&S opportunities arising from sustainability. These may include; providing links between young women who would like to start sustainable businesses with experienced sustainable business people and providing avenues for young inspired sustainable business men and women to learn from each other and cooperate in such sustainable business areas.

Moreover, since the concept of sustainability is reported to have a profound influence on opportunities than challenges, the current study encourages the entrepreneurship education as well as incubation programs to pay more attention toward the

sustainability as an opportunity rather than a threat in a bid to foster competitive advantage among firms.

Practical Implications

The following are the policy, educational and organizational implications for both policymakers, educators, and women entrepreneurs drawn from the results of this study. Policymakers should first understand these challenges and advance policies that encourage sustainable entrepreneurship among women. These may involve rewards and monetary bonuses, sponsorship of youth by companies, and skill development schemes. Second, institutions offering courses in entrepreneurship should use sustainability as a concept in teaching the management subject matter and focusing on the competitive advantage that sustainability issues offer. Third, women entrepreneurs should also try probing their network and extending their contacts with sustainable business entities and counterparts to expand their own sustainable business knowledge and resource base.

Theoretical Implications

In this research, the following theoretical and practical propositions support its value to knowledge advancement on women's entrepreneurship and sustainability. It enriches the knowledge about the correlations between the concepts of sustainability and entrepreneurial activities and, especially, the

prospects and issues that women entrepreneurs face. The paper also contributes to the literature by proposing a conceptual model that enables the investigation of the link between sustainability-oriented policies and entrepreneurship results, which can be advanced in future research. Also, it points to the need for the enhancement of the literature on entrepreneurship so as to incorporate the factor of sustainability into the opportunities and the chances for gaining competitive advantages.

As for the major limitations, while the study discusses many areas, the number of respondents reached out to is merely 509 women entrepreneurs, thus the situations described may not be representative of all the contexts of the world and various cultures.

Thus, the facts, concerns, and opportunities of female entrepreneurs might differ depending on the region, economy, and culture they act within.

Further, the study design of cross-sectional means that one is only able to compare the current state of affairs and still does not account for the dynamics of the process of entrepreneurship. Perhaps, Longitudinal studies might give more information on how these relationships change as the businesses and policies change.

A limitation that exists in all studies that employ surveys to gather data is the one that comes with self-reporting; therefore, the results obtained herein may have been biased. Subsequently, future studies could incorporate more objective scenario data concerning business performance and policies' efficiency.

Finally, although our study reveals that sustainability is perceived as important by the interviewees, the research does not explore further regarding the particular sustainability actions or standards that seem to work best. Future studies could identify which perspectives of sustainability are the most effective in generating opportunities for female entrepreneurs. Nonetheless, this research contributes to the existing knowledge the dynamics of policies, challenges, opportunities and sustainability issues affecting women's entrepreneurship and is useful for academic and policy purposes.

Data availability: To the best of the author's knowledge, the exhaustive dataset that has been collected and subjected to a rigorous analysis in the course of conducting this research is currently not available to the public. Nevertheless, related individuals can access more information given their request to the study's author. The author will address them all and, mostly if permitted, assists the qualified researchers with the required information for dissemination of the study findings while adhering to all the pertinent ethical standards and the privacy legislation.

Competing interests: In view of this and following the ethical consideration policy set for research at Badr University, it is hereby affirmed that there is no conflict of interest regarding this study. This also includes financial, personal, political, religious or other affiliations which may in one way or the other affect the proper conduct of research, the analysis or presentation of data

contained in this research work. In this study, the author will uphold the best practices of pushing for scientific precision and nonpartisanship.

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Appendix

Appendix A

Measurement Development

Variable	Sub variable	Statements	source
Women entrepreneurship policies and strategies		1. your leadership is able to persuade others of our viewpoint 2. Your strategic planning process is oriented towards grabbing the opportunity 3. You strongly emphasize research and development, technological leadership and innovations. 4. You focus on improving your firms existing services	4 statements A 5-point Likert scale. Siddiqui and Jan (2019).
Women entrepreneurs Challenges	Access to Financial Resources	5. Banks usually provide more financial resources to men in comparison with women 6. Usually, women have restricted access to the necessary financial resources for running a business	6 statements A 5-point Likert scale. Aladejebi (2020).
	Training and Education	7. A lack of adequate training and education limits women's involvement in business 8. Fewer training providers are available for women in terms of quantity and quality	
	Work-Family Interface	9. Having young children limits women's involvement in Business 10. Lacking moral support from the family affects the performance of women entrepreneurs and limits their involvement	

Women entrepreneurs Opportunities	Learning potential	11. You learn a lot about new business opportunities from attending network meetings 12. You learn a lot about business from talking to other entrepreneurs	4 statements A 5-point Likert scale. Farr-Wharton and Brunetto (2007)
	Market opportunities	13. Belonging to a network has benefited your business by presenting you with new markets 14. You have joined the network because you wanted to find a new business opportunities	
Entrepreneurship sustainability		15. Your enterprise use new innovations 16. Your enterprise use new technology and mechanism 17. Your enterprise offers durable Products/services 18. Production that damage the environment less are a new opportunities to attract investors and customers	4 statements A 5-point Likert scale. Hosseininia and Ramezani (2016)

Appendix

Questionnaire

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Women entrepreneurship policies and strategies						
1. Your leadership is able to persuade others of our viewpoint 2. Your strategic planning process is oriented towards grabbing the opportunity 3. You strongly emphasize research and development, technological leadership and innovations. 4. You focus on improving your firms existing services						
Women entrepreneurs Challenges						
Access to Financial Resources	5. Banks usually provide more financial resources to women in comparison with men					
	6. Usually, men have restricted access to the necessary financial resources for running a business					
Training and Education	7. A lack of adequate training and education limits men than women involvement in business					
	8. Fewer training providers are available for men than women in terms of quantity and quality					
Work-Family Interface	9. Having young children limits men involvement in Business more than women					
	10. Lacking moral support from the family affects the performance of men than women entrepreneurs and limits their involvement					
Women entrepreneurs Opportunities						
	11. You learn a lot about new business opportunities from attending network meetings					

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Learning potential	12. You learn a lot about business from talking to other entrepreneurs					
Market opportunities	13. Belonging to a network has benefited your business by presenting you with new markets					
	14. You have joined the network because you wanted to find a new business opportunities					
Entrepreneurship sustainability						
	15. Your enterprise use new innovations 16. Your enterprise use new technology and mechanism 17. Your enterprise offers durable Products/services 18. Production that damage the environment less are a new opportunities to attract investors and customers					