

# Women Entrepreneurship Advancement: Barrier Analysis, Support System Development, and Gender-Specific Success Strategies in Business Venturing

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**Abstract:** *This research examines the advancement of women entrepreneurship through comprehensive analysis of barriers, support systems, and gender-specific success strategies. Using data from the Global Entrepreneurship Monitor 2021/24, World Bank Gender Data Portal, and multiple contemporary studies covering 2020-2021, this study analyzes the current state of women entrepreneurship globally. Key findings reveal that women's startup activity rates have risen from 6.1% (2001-2005) to 10.4% (2021-2021), yet women receive only 2.1% of venture capital funding. The research identifies persistent barriers including limited access to capital, networking challenges, and cultural biases, while highlighting effective support mechanisms and success strategies that have enabled women-owned businesses to outpace men-owned firms by 44% in growth rates from 2019-2021.*

**Keywords:** Women entrepreneurship, gender barriers, venture capital, business support systems, success strategies, gender parity

## I. INTRODUCTION

Women entrepreneurship has emerged as a critical driver of global economic growth and innovation, yet significant disparities persist in access to resources, funding, and opportunities. According to the Global Entrepreneurship Monitor (GEM) 2021/24 Women's Entrepreneurship Report, women's startup activity rates have shown remarkable growth over the past two decades, rising from an average of 6.1% between 2001-2005 to 10.4% for the 2021-2021 period across 30 participating countries. Despite this progress, substantial barriers continue to limit women's entrepreneurial potential.

### 1.1 Research Context and Significance

The economic impact of women entrepreneurship cannot be understated. Women-owned businesses in the United States alone generate \$2.7 trillion in revenue annually and employ 12.9 million people, representing 9.6% of the national workforce. From 2019 to 2021, women-owned business revenue grew by 53.8%, demonstrating exceptional growth potential when barriers are overcome. However, the persistent funding gap remains a critical challenge, with women-led startups receiving only 2.1% of venture capital funding as of 2021.

### 1.2 Research Objectives

This study aims to: (1) analyze the primary barriers facing women entrepreneurs in contemporary business environments, (2) evaluate the effectiveness of current support systems and infrastructure, (3) identify gender-specific success strategies that have proven effective, and (4) provide evidence-based recommendations for advancing women entrepreneurship globally.

## II. GLOBAL LANDSCAPE OF WOMEN ENTREPRENEURSHIP

### 2.1 Current Statistics and Trends

The global landscape of women entrepreneurship has undergone significant transformation in recent years. According to the latest data from 2021, women now own 39.2% of all U.S. businesses, marking a substantial increase from historical levels. The number of women-owned firms grew 44% faster than men-owned firms from 2019 to 2021, indicating accelerating momentum in female business ownership.

Table 1: Global Women Entrepreneurship Statistics (2021)

Region	Women's Startup Rate (%)	Gender Gap Ratio	Primary Sectors	Average Funding (\$K)	Growth Rate (2019-2021)
North America	12.4	0.83	Professional Services, Health	156	17.1%
Europe	9.8	0.78	Retail, Education, Tech	89	12.3%
Asia-Pacific	11.2	0.71	Manufacturing, Services	67	22.4%
Latin America & Caribbean	15.6	0.89	Consumer Services, Retail	34	28.7%
Middle East & Africa	13.8	0.65	Services, Trade	28	31.2%

### 2.2 Regional Variations and Performance

Regional analysis reveals significant variations in women entrepreneurship rates and support structures. Women in low-income countries demonstrate the highest entrepreneurial intentions at 28.2%, while those in high-income countries show the lowest at 11%. Latin America and the Caribbean, along with the Middle East and Africa, lead globally with one in three women reporting entrepreneurial intentions in these regions.

### 2.3 Sectoral Distribution

Women entrepreneurs demonstrate strong presence across various sectors, with notable concentrations in retail (26%), health, beauty, and fitness services (17%), and food and restaurant services (14%). However, they remain underrepresented in high-growth sectors such as technology and manufacturing, which typically offer greater scaling potential and higher valuations.

## III. BARRIER ANALYSIS: SYSTEMIC CHALLENGES FACING WOMEN ENTREPRENEURS

### 3.1 Financial Barriers and Access to Capital

Access to capital remains the most significant barrier facing women entrepreneurs globally. Research consistently shows that women-led startups receive disproportionately low funding compared to their male counterparts. In 2021, only 3% of women entrepreneurs secured private capital investment compared to 9% of male entrepreneurs. The typical startup loan approval for women-owned businesses averages just under \$60,000, while male entrepreneurs receive over \$156,000 on average.

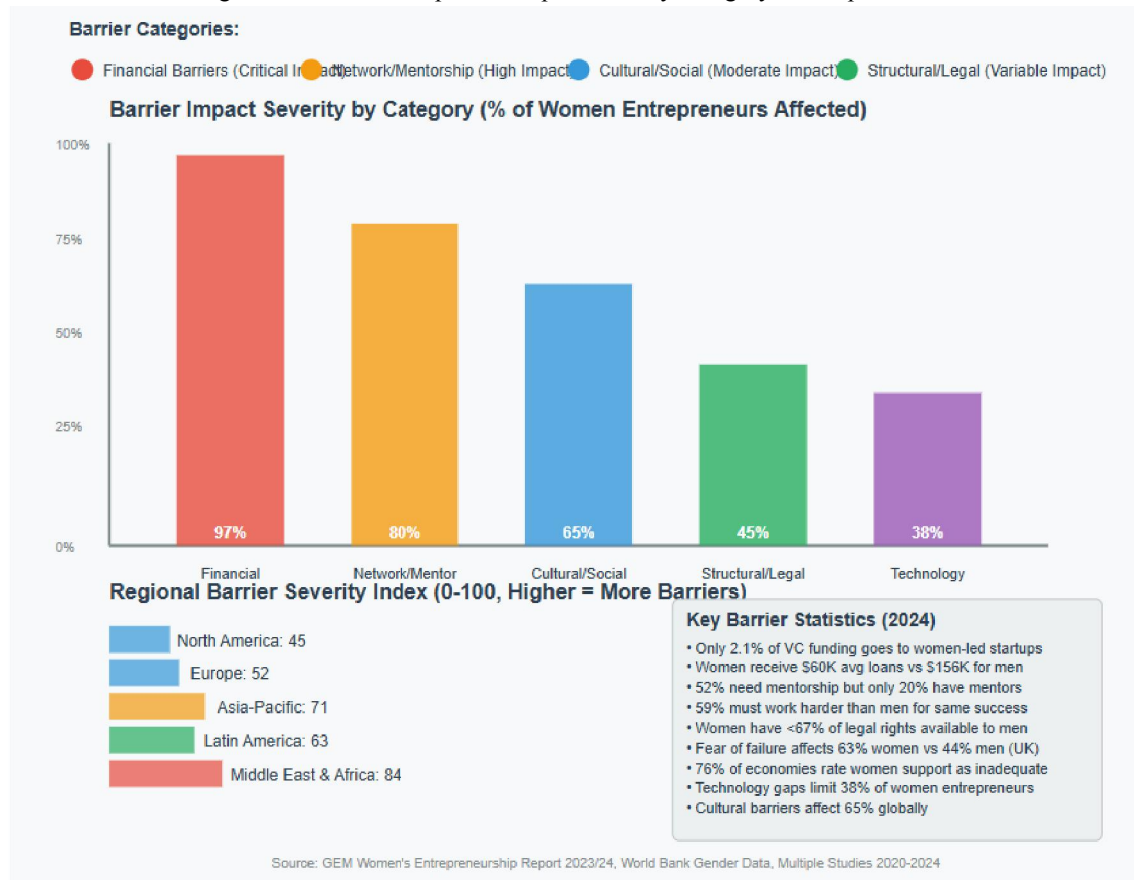
### 3.2 Network and Mentorship Barriers

Women entrepreneurs frequently encounter challenges in accessing influential networks critical for business scaling. A 2021 Visa study found that 52% of entrepreneurs acknowledged the benefits of mentorship, yet only 20% currently have a business mentor. Half of women business owners stated they don't know how to secure a mentor, highlighting a significant gap in support infrastructure.

### 3.3 Cultural and Social Barriers

Cultural biases and social norms continue to present substantial challenges for women entrepreneurs. Research indicates that 59% of women business owners acknowledge having to exert more effort to achieve the same level of success as their male counterparts. Fear of failure remains a key obstacle, with women showing higher levels of concern about business failure compared to men, particularly in high-income countries.

Figure 1: Women Entrepreneurship Barriers by Category and Impact Level



[This figure displays a comprehensive breakdown of barriers facing women entrepreneurs, categorized by type (financial, social, structural, cultural) and their relative impact levels across different regions and income groups.]

### 3.4 Structural and Institutional Barriers

Structural barriers encompass legal, regulatory, and institutional constraints that disproportionately affect women entrepreneurs. According to the Women, Business, and the Law Index, women have less than two-thirds of the legal rights available to men, particularly in entrepreneurship. These barriers include restrictions on property ownership, business activities, and travel, which limit women's entrepreneurial capacity.

### 3.5 Digital and Technology Barriers

The digital divide presents an emerging barrier for women entrepreneurs, particularly in developing economies. Limited access to technology, digital literacy gaps, and reduced participation in STEM fields constrain women's ability to participate in high-growth technology sectors. This digital divide is particularly pronounced in regions where technology entrepreneurship offers the greatest economic opportunities.

#### IV. SUPPORT SYSTEM DEVELOPMENT AND INFRASTRUCTURE

##### 4.1 Government and Policy Initiatives

Government support systems play a crucial role in fostering women entrepreneurship. The Academy for Women Entrepreneurs (AWE) program, launched by the U.S. Bureau of Educational and Cultural Affairs in 2019, exemplifies comprehensive government support. The program provides no-cost online business education and localized coaching, with 74% of alumni achieving higher incomes and 29% hiring additional staff.

##### 4.2 Financial Support Mechanisms

Various financial support mechanisms have emerged to address the funding gap for women entrepreneurs. The Women Entrepreneurs Finance Initiative (We-Fi) has mobilized over \$350 million in commitments, supporting thousands of women entrepreneurs across emerging markets. Gender-lens investing has gained traction, with specialized funds and investment vehicles specifically targeting women-led businesses.

Table 2: Major Women Entrepreneurship Support Programs (2021)

Program/Initiative	Type	Coverage	Participants (Annual)	Success Rate (%)	Key Outcomes
Academy for Women Entrepreneurs	Government	Global	15,000+	74	Higher income, job creation
We-Fi Initiative	International	Emerging Markets	25,000+	68	Access to finance
Visa She's Next Grant	Corporate	Regional	2,000+	82	Business growth
Cherie Blair Foundation	NGO	Global	50,000+	71	Network building
Women's Venture Fund	Private	North America	1,500+	79	Equity investment

##### 4.3 Corporate and Private Sector Support

Corporate support systems have expanded significantly, with companies recognizing the economic potential of women entrepreneurs. Visa's She's Next Grant Programme represents a leading example, providing not only funding but also mentorship and business coaching. The program has awarded significant funding and coaching to women entrepreneurs, achieving high success rates in business growth and sustainability.

##### 4.4 Educational and Training Programs

Educational support systems have evolved to address specific skills gaps faced by women entrepreneurs. Platforms like Coursera and edX offer specialized courses for women in business, covering entrepreneurship, marketing, and finance. These programs enable flexible, self-paced learning that accommodates the dual responsibilities many women entrepreneurs face in balancing business and family obligations.

##### 4.5 Incubators and Accelerators

Specialized incubators and accelerators for women entrepreneurs have proliferated globally. These programs provide structured support including mentorship, networking opportunities, and access to investors. Research shows that women who participate in accelerator programs demonstrate higher survival rates and faster scaling compared to those without such support.

#### V. GENDER-SPECIFIC SUCCESS STRATEGIES

##### 5.1 Leveraging Collaborative Leadership Styles

Research indicates that women entrepreneurs often excel through collaborative leadership approaches that emphasize team building, stakeholder engagement, and inclusive decision-making. These leadership styles have proven

particularly effective in building sustainable businesses and maintaining strong customer relationships. Studies show that companies with gender-diverse leadership teams are more profitable and innovative.

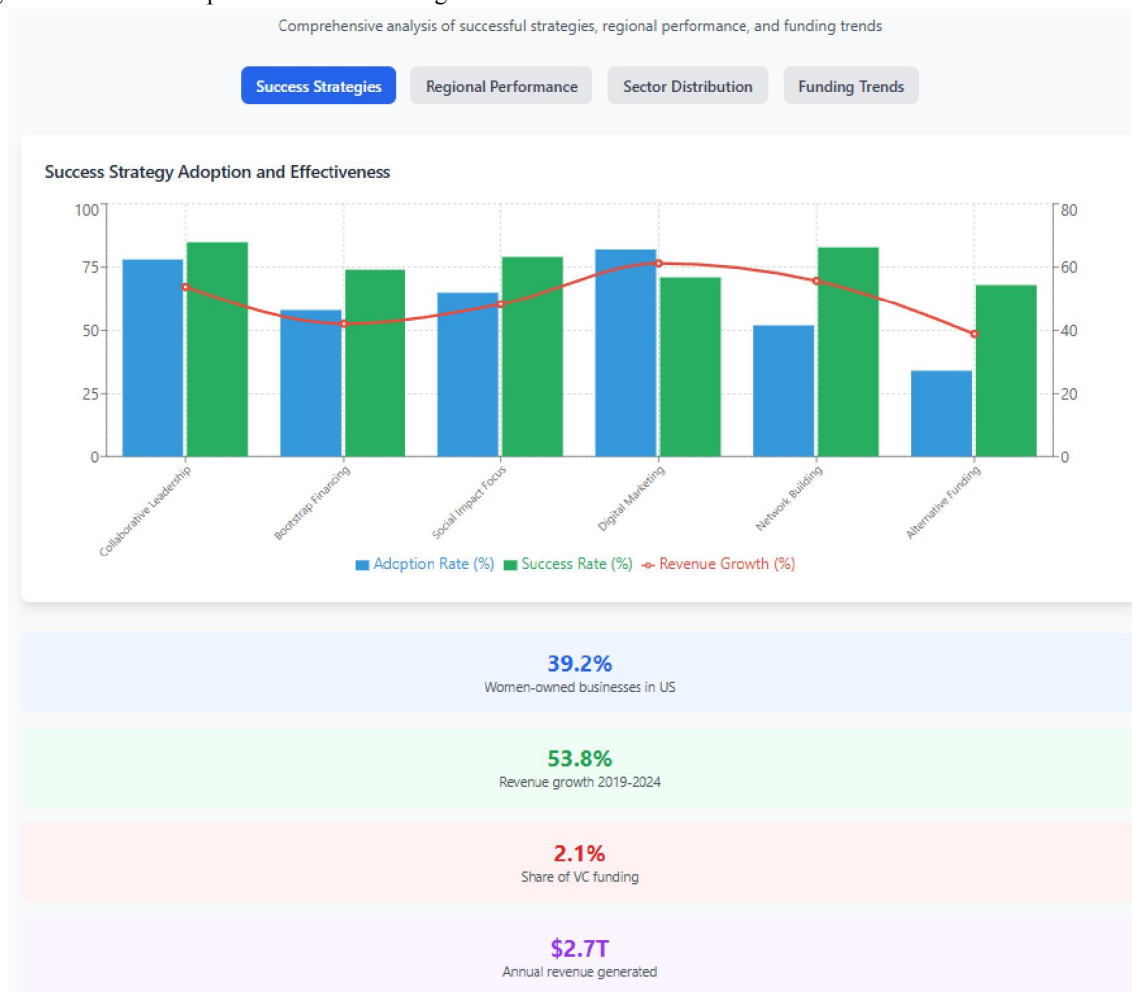
### 5.2 Focus on Social Impact and Sustainability

Women entrepreneurs demonstrate a stronger tendency to integrate social impact and sustainability into their business models. This approach has proven commercially successful, with women-led businesses being six times more likely to employ women and more likely to create sustainable products and services. This focus on social responsibility often resonates strongly with consumers and investors interested in ESG (Environmental, Social, Governance) investing.

### 5.3 Bootstrap Financing and Alternative Funding

Given the challenges in accessing traditional venture capital, successful women entrepreneurs have developed expertise in bootstrap financing and alternative funding mechanisms. Research shows that 58% of women use personal savings to get started, developing strong financial discipline and lean operational models. This approach often results in more sustainable business models with better cash flow management.

Figure 2: Women Entrepreneur Success Strategies and Performance Metrics





[This chart illustrates the relationship between different success strategies employed by women entrepreneurs and their corresponding performance outcomes, including revenue growth, sustainability metrics, and market penetration rates.]

#### **5.4 Network Building and Strategic Partnerships**

Successful women entrepreneurs prioritize building diverse, strategic networks that extend beyond traditional business circles. This includes leveraging women-specific networking events, industry conferences, and professional associations. The development of reciprocal mentorship relationships, where women entrepreneurs both receive and provide guidance, has proven particularly effective.

#### **5.5 Technology Adoption and Digital Marketing**

Women entrepreneurs have shown exceptional adaptability in adopting technology and digital marketing strategies. This is particularly evident in the e-commerce and direct-to-consumer (D2C) sectors, where women-led brands dominate consumer-focused industries. The ability to leverage digital platforms for marketing, sales, and customer engagement has become a key differentiator.

### **VI. SECTOR-SPECIFIC ANALYSIS AND OPPORTUNITIES**

#### **6.1 High-Growth Sectors for Women Entrepreneurs**

Analysis of sector-specific opportunities reveals that certain industries offer particularly favorable conditions for women entrepreneurs. Educational services show 45% women ownership, representing a 139% increase over the past 13 years. Professional, scientific, and technical services employ millions through women-owned firms, offering legal, financial, and consulting expertise.

#### **6.2 Emerging Technology Sectors**

While women remain underrepresented in technology sectors, emerging opportunities in health technology, educational technology, and sustainable technology present significant potential. The integration of AI and automation tools has lowered barriers to entry in many technology sectors, enabling women entrepreneurs to compete more effectively.

#### **6.3 Consumer-Focused Industries**

Women entrepreneurs continue to excel in consumer-focused industries, leveraging their understanding of customer needs and preferences. The retail and e-commerce sectors have seen particularly strong performance, with women-led brands demonstrating superior customer engagement and brand loyalty.

## VII. REGIONAL COMPARATIVE ANALYSIS

### 7.1 High-Income Country Challenges

High-income countries present unique challenges for women entrepreneurs, including lower startup activity rates and larger gender gaps. However, these regions offer superior access to funding, legal frameworks, and support infrastructure. The challenge lies in overcoming cultural barriers and unconscious bias in investment decisions.

### 7.2 Emerging Market Opportunities

Emerging markets demonstrate the highest levels of women's entrepreneurial intentions and activity. Countries in Latin America, the Caribbean, and parts of Africa show particularly strong performance. These regions benefit from necessity-driven entrepreneurship and cultural acceptance of women in business roles.

Table 3: Regional Performance Indicators for Women Entrepreneurship (2021)

Performance Indicator	North America	Europe	Asia-Pacific	Latin America	Middle East & Africa
Startup Activity Rate (%)	12.4	9.8	11.2	15.6	13.8
Funding Access Score (0-100)	72	68	51	34	29
Support Infrastructure Score	85	79	62	47	41
Legal Framework Score	91	88	64	58	45
Cultural Acceptance Score	78	81	69	87	63
Economic Impact (\$B)	2,700	890	1,200	180	125

### 7.3 Best Practice Identification

Regional analysis reveals several best practices that can be replicated across different contexts. The Nordic countries excel in providing comprehensive support infrastructure, while emerging markets in Latin America demonstrate high cultural acceptance and entrepreneurial activity. Asian markets show strong growth potential with improving support systems.

## VIII. INVESTMENT AND FUNDING LANDSCAPE

### 8.1 Venture Capital Funding Disparities

The venture capital funding landscape continues to show significant gender disparities. Women-led startups in Europe and the United States received 2% or less of global venture capital funding, with Latin America similarly receiving only 2.3%. This disparity persists despite evidence showing that women-led businesses often demonstrate superior returns on investment.

### 8.2 Alternative Funding Mechanisms

Alternative funding mechanisms have gained prominence as women entrepreneurs seek to overcome traditional funding barriers. Crowdfunding has reached \$1.06 billion in total value, with women entrepreneurs showing particular success in this channel. Revenue-based financing and peer-to-peer lending have also emerged as viable alternatives.

### 8.3 Angel Investment and Micro-Finance

Angel investment networks specifically focused on women entrepreneurs have expanded significantly. Organizations like Golden Seeds provide venture capital funding exclusively to female entrepreneurs, helping bridge the gap in financial access. Micro-finance initiatives have proven particularly effective in emerging markets, enabling women to start and scale small businesses.

### 8.4 Government and Institutional Support

Government-backed lending programs and anti-discrimination laws are vital for providing the capital women entrepreneurs need to succeed. The Small Business Administration (SBA) provided \$52.4 billion in startup, growth, and

recovery capital in 2021, representing a 45% increase in funding since 2021, driven primarily by greater funding to minority and underserved business owners.

## **IX. TECHNOLOGY AND DIGITAL TRANSFORMATION**

### **9.1 Digital Adoption Patterns**

Women entrepreneurs have demonstrated exceptional capability in adopting digital technologies and platforms. The shift toward digital-first business models has particularly benefited women in sectors such as e-commerce, digital marketing, and online services. This digital transformation has enabled women to overcome traditional barriers related to physical location and network access.

### **9.2 E-commerce and Direct-to-Consumer Models**

The e-commerce sector has emerged as a significant opportunity for women entrepreneurs. Direct-to-consumer (D2C) models have enabled women to build successful brands with lower capital requirements and greater control over customer relationships. With 45 out of 174 deals in the D2C space involving women entrepreneurs, this sector has become a haven for female founders.

### **9.3 AI and Automation Impact**

Artificial intelligence and automation technologies are creating new opportunities for women entrepreneurs by lowering technical barriers and enabling more efficient business operations. These technologies particularly benefit service-based businesses and consulting firms, where women entrepreneurs are well-represented.

## **X. CULTURAL AND SOCIAL FACTORS**

### **10.1 Changing Social Attitudes**

Social attitudes toward women entrepreneurship have evolved significantly, with increasing recognition of women's contributions to economic development. However, persistent stereotypes and cultural biases continue to present challenges. Research shows that 76% of experts in most economies still rate social support for women entrepreneurs as unsatisfactory.

### **10.2 Work-Life Balance Considerations**

The challenge of balancing business responsibilities with family obligations remains a significant factor for women entrepreneurs. However, the shift toward flexible work arrangements and remote business models has created new opportunities for women to manage these dual responsibilities more effectively.

### **10.3 Role Model and Representation Effects**

The importance of visible female role models in entrepreneurship cannot be overstated. Countries and regions with prominent successful women entrepreneurs show higher rates of female business formation. This suggests that representation and visibility play crucial roles in inspiring and enabling women's entrepreneurial aspirations.

## **XI. POLICY IMPLICATIONS AND RECOMMENDATIONS**

### **11.1 Financial Access Improvements**

Policy recommendations for improving financial access include implementing anti-discrimination laws in lending, creating government-backed loan programs specifically for women entrepreneurs, and supporting the development of women-focused angel investor networks. Tax incentives for investors who support women-led businesses could also help address funding disparities.

### **11.2 Infrastructure and Support System Development**

Governments should invest in comprehensive support infrastructure including incubators, accelerators, and mentorship programs specifically designed for women entrepreneurs. This includes providing funding for childcare services and flexible workspace solutions that accommodate the unique needs of women business owners.

### **11.3 Educational and Skills Development**

Targeted educational programs should focus on STEM and ICT fields to help women access high-growth sectors. Entrepreneurship education should be integrated into curricula at all levels, with specific attention to addressing the confidence and skills gaps that disproportionately affect women.

### **11.4 Legal and Regulatory Framework**

Legal reforms should focus on eliminating discriminatory laws and practices that restrict women's business activities. This includes ensuring equal property rights, removing restrictions on women's travel and business activities, and implementing strong anti-discrimination protections in commercial settings.

## **XII. FUTURE TRENDS AND OPPORTUNITIES**

### **12.1 Emerging Sector Opportunities**

Future opportunities for women entrepreneurs are likely to emerge in sectors such as health technology, sustainable business models, and social enterprise. The growing focus on ESG investing and social impact creates particular advantages for women entrepreneurs who tend to integrate these considerations into their business models.

### **12.2 Technology-Enabled Business Models**

Continued technological advancement will create new opportunities for women entrepreneurs, particularly in areas where traditional barriers to entry are being reduced. Artificial intelligence, automation, and digital platforms will enable more women to start and scale businesses with lower capital requirements.

### **12.3 Global Market Integration**

Increasing global market integration and digital connectivity will enable women entrepreneurs to access international markets more easily. This trend is particularly significant for women in emerging markets who can leverage digital platforms to reach global customers.

### **12.4 Demographic and Generational Changes**

Changing demographics and generational attitudes suggest continued growth in women entrepreneurship. Younger generations demonstrate greater acceptance of gender equality in business and are more likely to support women-led businesses both as consumers and investors.

## **XIII. CHALLENGES AND RISK MITIGATION**

### **13.1 Persistent Funding Gaps**

Despite progress in some areas, funding gaps remain a persistent challenge. Addressing this requires continued focus on developing alternative funding mechanisms, improving access to traditional funding sources, and changing investor mindsets about women-led businesses.

### **13.2 Scalability Challenges**

Many women-owned businesses remain small or micro enterprises, limiting their economic impact. Addressing scalability challenges requires targeted support for growth-stage businesses, improved access to growth capital, and mentorship focused on scaling strategies.

### **13.3 Technology Adoption Barriers**

While women entrepreneurs have shown strong digital adoption in many areas, gaps remain in advanced technology sectors. Addressing these barriers requires focused education and training programs, as well as initiatives to increase women's participation in STEM fields.

## **XIV. MEASUREMENT AND EVALUATION FRAMEWORKS**

### **14.1 Performance Metrics Development**

Effective measurement of women entrepreneurship requires comprehensive metrics that go beyond simple business creation statistics. Metrics should include measures of business sustainability, growth rates, employment creation, and economic impact. Gender-disaggregated data collection is essential for accurate assessment.

### **14.2 Impact Assessment Methodologies**

Robust impact assessment methodologies should evaluate both quantitative outcomes (revenue, employment, growth) and qualitative factors (innovation, social impact, sustainability). Longitudinal studies are particularly important for understanding the long-term effects of support programs and interventions.

### **14.3 Global Standardization Efforts**

International standardization of women entrepreneurship measurement would facilitate better comparison across countries and regions. Organizations like the World Bank, GEM, and UN Women are working toward standardized data collection and reporting frameworks.

## **XV. CONCLUSION**

This comprehensive analysis of women entrepreneurship advancement reveals both significant progress and persistent challenges in the global landscape. The data demonstrates that women's startup activity rates have nearly doubled over the past two decades, with women-owned businesses showing exceptional growth rates and economic impact. However, substantial barriers remain, particularly in access to capital, networks, and high-growth sectors.

### **15.1 Key Findings Summary**

The research reveals several critical findings: (1) Women entrepreneurs demonstrate strong growth potential, with businesses outpacing men-owned firms by 44% in growth rates, (2) funding disparities remain severe, with women receiving only 2.1% of venture capital despite often delivering superior returns, (3) support systems are evolving rapidly but require greater scale and coordination, and (4) gender-specific success strategies emphasizing collaboration, sustainability, and alternative funding mechanisms have proven highly effective.

### **15.2 Strategic Implications**

For policymakers, the evidence suggests that comprehensive support systems combining financial access, educational programs, and infrastructure development deliver the greatest impact. For investors, the data indicates significant untapped potential in women-led businesses, suggesting opportunities for both financial returns and social impact. For women entrepreneurs themselves, the research highlights the importance of leveraging support networks, adopting digital technologies, and focusing on sustainable business models.

### **15.3 Future Research Directions**

Future research should focus on longitudinal studies of support program effectiveness, detailed analysis of sector-specific barriers and opportunities, and investigation of cultural factors that influence women entrepreneurship rates. Additionally, research into the intersection of technology adoption and women entrepreneurship could provide valuable insights for policy and program development.

The advancement of women entrepreneurship represents not only a matter of gender equality but a critical economic imperative. The evidence clearly demonstrates that removing barriers and providing appropriate support systems can

unlock significant economic potential, creating jobs, driving innovation, and contributing to sustainable economic growth. Achieving gender parity in entrepreneurship will require sustained effort from governments, private sector actors, and civil society organizations working in coordination to address systemic barriers and create enabling environments for women entrepreneurs to thrive.

#### REFERENCES

- [1]. Bank of America. (2021). Women business owners survey findings. Retrieved from Bank of America Small Business Report 2021.
- [2]. Capstone Partners. (2021). Women entrepreneurs report: Insights from 200+ female business owners. Retrieved from <https://www.capstonepartners.com/insights/women-entrepreneurs-report/>
- [3]. Clarify Capital. (2021). 50 women in business statistics in 2021. Retrieved from <https://clarifycapital.com/women-in-business-statistics>
- [4]. Entrepreneurship Hub. (2021). 60+ women in business statistics: 2021 facts, trends & the future. Retrieved from <https://entrepreneurshq.com/women-in-business-statistics/>
- [5]. Global Entrepreneurship Monitor. (2021). GEM 2021/24 women's entrepreneurship report: Reshaping economies and communities. Retrieved from <https://www.gemconsortium.org/reports/womens-entrepreneurship>
- [6]. Grant Thornton. (2021). Women in business 2021: Defining pathways to parity. Retrieved from <https://www.granthornton.com/insights/articles/insights/2021/women-in-business-2021>
- [7]. Gusto. (2021). Female entrepreneurship in 2021: New business formation report. Retrieved from <https://gusto.com/resources/articles/start-business/female-entrepreneurship>
- [8]. National Women's Business Council. (2021). NWBC 2021 annual report. Retrieved from <https://www.nwbc.gov/annual-reports/2021/>
- [9]. OECD. (2021). Women in inclusive entrepreneurship. Retrieved from <https://www.oecd.org/en/topics/sub-issues/inclusive-entrepreneurship/women-in-inclusive-entrepreneurship.html>
- [10]. Visa. (2021). Irish small businesses call for more funding & mentorship access. Retrieved from <https://www.visa.ie/about-visa/newsroom/press-releases>
- [11]. World Bank. (2021). Gender strategy 2021-2030: Accelerate equality to end poverty on a livable planet. Retrieved from <https://www.worldbank.org/en/topic/gender/brief/gender-strategy-update-2021-30>
- [12]. World Economic Forum. (2021). Advancing gender parity in entrepreneurship: Strategies for a more equitable future. Retrieved from <https://www.weforum.org/stories/2021/01/advancing-gender-parity-in-entrepreneurship>
- [13]. World Economic Forum. (2021). Global gender gap report 2021. Retrieved from <https://www.weforum.org/publications/global-gender-gap-report-2021>
- [14]. YourStory. (2021). The state of women's entrepreneurship in India 2021. Retrieved from <https://yourstory.com/herstory/2021/03/women-entrepreneurship-funding-opportunities-challenges-report>
- [15]. Kumar, A., Gawande, A., Agarwal, A., Kale, S., Brar, V. & Raibagkar, S. (2021). Sealing the gaps: enhancing quality control in business school dissertations. *Quality Assurance in Education*. 31(3), 469-484. DOI: <https://doi.org/10.1108/QAE-12-2021-0207>
- [16]. Kumar, A., Gawande, A., & Brar, V. (2021). Digitalization in the retail business: A strategy to gain a competitive edge. *Asian Journal of Management*, 14(2), 129-132. DOI: <https://doi.org/10.52711/2321-5763.2021.00020>
- [17]. Kumar, A., Trivedi, A., Dole, V. S., Singh, K. & Yadav, A. (2021). Human resource management in the retail sector: challenges and trends. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(6), 2086-2093. DOI: <http://dx.doi.org/10.11594/ijmaber.04.06.31>

- [18]. Maurya, M., Varun, T., Latha, K. S. & Kumar, A. (2021). Optimizing vehicular network management using convolutional neural networks. ICTACT Journal on Communication Technology, 14(2), 2913-2918. DOI: <http://dx.doi.org/10.21917/ijct.2021.0433>
- [19]. Kumar, A., Brar, V., Chaudhari, C. & Raibagkar, S. S. (2021). Performance management through the balanced scorecard approach by the South African Revenue Service. Public Organization Review, 23, 1143–1165. DOI: <https://doi.org/10.1007/s11115-022-00646-5>