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FEM - SKILLS

FEM-SKILLS MODEL
METHODOLOGICAL GUIDE

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TABLE OF CONTENTS

INTRODUCTION

The FEM-SKILLS Model Methodological Guide presents a systematic framework for understanding, analysing, and developing female entrepreneurial capabilities within contemporary business environments. This comprehensive guide addresses the complex phenomenon of female entrepreneurship through empirically validated approaches and evidence-based methodologies, offering practical solutions to documented challenges in entrepreneurial development.

The guide's analytical foundation emerges from extensive research demonstrating persistent gender disparities in entrepreneurial participation. Current data reveals that women operate approximately one-third of global enterprises, with male entrepreneurship initiation occurring at twice the female rate. Within the European context, this disparity becomes particularly evident: while women constitute 52% of the population, they represent only one-third of startup entrepreneurs, indicating significant unrealized innovative potential. These empirical observations establish the critical need for targeted intervention strategies and specialized support mechanisms.

The theoretical framework integrates multiple disciplinary perspectives, synthesizing insights from management science, economic theory, and sociological analysis. This interdisciplinary approach addresses historical methodological oversights regarding gender-specific entrepreneurial characteristics, providing a more nuanced understanding of how gender influences business development trajectories. The guide particularly examines how systematic overrepresentation of women entrepreneurs in sectors characterized by lower entry barriers correlates with reduced profit margins and smaller business scale, reflecting both structural impediments and sociocultural constraints.

At its core, the guide presents the FEM-SKILLS Model, structured around three fundamental pillars that address distinct aspects of entrepreneurial development. The Self-Control pillar focuses on personal management capabilities and emotional intelligence, providing frameworks for developing crucial metacognitive skills. The Inspiration pillar addresses creative and innovative potential, offering systematic approaches to opportunity recognition and value creation. The Action pillar concentrates on implementation and results achievement, presenting methodologies for translating entrepreneurial vision into practical outcomes.

The guide demonstrates how the FEM-SKILLS Model aligns with established European competency frameworks, particularly EntreComp and LifeComp. This integration ensures compatibility with existing educational and professional development systems while addressing the specific needs of female entrepreneurs. The framework provides detailed mapping between competency domains, enabling systematic skill development across multiple entrepreneurial dimensions.

Through comparative analysis of female entrepreneurship in Ireland, Poland, and Spain, the guide provides empirically grounded insights into regional variations in entrepreneurial development. This analysis reveals how different socioeconomic contexts influence entrepreneurial outcomes, enabling the development of targeted intervention strategies. The examination encompasses various metrics, including business ownership rates, sectoral distribution, and success factors, providing a comprehensive understanding of regional entrepreneurial ecosystems.

The implementation section presents detailed protocols for applying the theoretical framework in practical contexts. These guidelines address various stakeholder needs, from educational institutions developing entrepreneurship programs to support organizations providing business development services. The implementation framework emphasizes the importance of continuous assessment and adaptation, ensuring sustainable entrepreneurial development outcomes.

Looking toward future applications, the guide discusses potential developments in female entrepreneurship support mechanisms. This includes emerging opportunities in digital transformation, sector-specific interventions, and innovative funding mechanisms. The framework particularly emphasizes the importance of developing sustainable support ecosystems that can adapt to evolving business environments while maintaining focus on gender-specific challenges and opportunities.

The methodological significance of this guide lies in its systematic approach to addressing documented disparities in entrepreneurial participation rates while acknowledging context-specific challenges. By providing both theoretical depth and practical applicability, the guide serves as a comprehensive resource for stakeholders involved in entrepreneurial education and support systems. The framework's emphasis on empirical validation and practical implementation ensures its relevance for developing effective interventions in female entrepreneurship development.

Through this structured approach to understanding and supporting female entrepreneurship, the guide contributes to both theoretical advancement and practical development in the field. Its comprehensive examination of entrepreneurial competencies, combined with detailed implementation guidelines, provides a robust foundation for developing more effective support mechanisms for female entrepreneurs. The framework's integration with established European competency systems ensures its practical utility while maintaining theoretical rigor, making it a valuable resource for advancing female entrepreneurship development.

This publication is one of the intellectual results of the “FEM-SKILLS Project - support to young female entrepreneurs”, carried out within the framework of the European Programme Erasmus+ and is co-funded by the European Union. The main objective of the project is to strengthen the system of support and promotion of entrepreneurship among young women through the development of their entrepreneurship meta-skills according to FEM-SKILLS MODEL. The project is implemented by the international consortium led by EFORT Foundation (Poland) and its partners ASOCIACION ARRABAL AID (Spain) and ETN Training Vision (Ireland).

FEMALE ENTREPRENEURSHIP

The entrepreneurial landscape has undergone a quantifiable transformation during the 21st century, particularly regarding gender participation metrics. Research demonstrates a significant shift from historical male dominance toward increased female participation, though systematic disparities persist. This evolution challenges established demographic patterns and institutional frameworks within the entrepreneurial ecosystem.

The theoretical framework of entrepreneurship studies traditionally encompassed management science, economic theory, and sociological analysis. However, female entrepreneurship research remained understudied due to the empirically unsupported assumption of gender neutrality in business operations. This methodological oversight created significant knowledge gaps regarding gender-specific entrepreneurial characteristics and challenges.

Recent academic investigation has expanded systematically into multiple dimensions of female entrepreneurship. Research now encompasses decision-making frameworks, obstacle identification and analysis, and strategic response mechanisms developed by women entrepreneurs to address systematic challenges.

Statistical evidence demonstrates persistent gender disparities in entrepreneurial participation rates. Global data indicates that women operate approximately one-third of enterprises, with male entrepreneurship initiation occurring at twice the rate of females. European context analysis reveals particular disparity: women constitute 52% of the population yet represent only one-third of startup entrepreneurs, indicating significant unrealized innovative potential.

Research indicates systematic overrepresentation of women entrepreneurs in sectors characterized by lower entry barriers. This sectoral concentration correlates with reduced profit margins and a smaller average business scale. The pattern reflects both structural impediments and sociocultural constraints affecting female entrepreneurial opportunity access and strategic choices.

The empirical analysis identifies gender as a significant determinant in enterprise survival, demonstrating comparable influence to industry classification, operational scale, educational attainment, and market demand variables. This finding underscores the importance of gender-specific factors in business sustainability analysis.

Female entrepreneurship demonstrates a measurable impact on economic and social development metrics. The integration of gender equality objectives within United Nations Sustainable Development Goals provides quantifiable benchmarks for progress assessment. Research indicates that female business ownership and leadership generate both economic opportunities and social development outcomes.

Analysis reveals a significant correlation between female entrepreneurship development and regional economic growth indicators. This relationship has prompted increased focus on activating entrepreneurial potential among women demonstrating business ownership predisposition. Research documents diverse manifestation patterns across geographical and cultural contexts, necessitating tailored support mechanisms.

Empirical evidence supports the necessity of comprehensive approaches to female entrepreneurship development. This encompasses systematic barrier reduction strategies, targeted support system development, gender-equality policy implementation, and specialized mentorship program establishment.

The increasing prominence of female entrepreneurship represents a quantifiable shift in business ecosystem dynamics, with implications for economic growth patterns, social development metrics, and gender equality indicators. While systematic challenges persist, enhanced recognition of female entrepreneurial potential, combined with targeted support mechanisms and policy initiatives, suggests a positive development trajectory.

Research indicates that sustainable progress requires coordinated engagement from policy architects, business leadership, and societal stakeholders to create optimal conditions for female entrepreneurial development. This coordinated approach represents a prerequisite for achieving gender parity in entrepreneurship and maximizing societal innovative potential.

The empirical evidence demonstrates both progress and persistent challenges in female entrepreneurship development. Success metrics indicate a positive trajectory while highlighting areas requiring continued strategic intervention to achieve comprehensive gender parity in entrepreneurial activities.

ENTREPRENEURIAL FRAMEWORK: A GENDER-BASED PERSPECTIVE

The entrepreneurial ecosystem comprises interconnected determinants that shape entrepreneurial activity patterns. Contemporary research demonstrates that entrepreneurship operates within a complex matrix of demographic structures, legal systems, educational institutions, and political frameworks. These external determinants interact with internal psychological motivations and socio-economic conditions to influence entrepreneurial initiation decisions.

The Global Entrepreneurship Monitor (GEM) has established a comprehensive framework for analyzing entrepreneurial conditions. Capital accessibility is defined as the availability of financial resources for new and developing companies, encompassing various forms of subsidies. Research indicates that public policy, specifically tax structures and legal regulations, significantly influences business activity in terms of both initiation and development phases[1].

GEM distinguishes several critical conditions affecting entrepreneurial activity. Capital accessibility manifests through the availability of diverse financial resources for new and developing enterprises. Public policy influence operates through tax structures and legal regulations, significantly impacting both business initiation and development phases. The framework encompasses public support programs operating across national, regional, and municipal levels. Educational components incorporate both formal training and practical skill development. Research and development factors contribute through innovation potential and knowledge accessibility. Commercial infrastructure encompasses professional services and institutional support mechanisms. Market dynamics include formal and informal entry barriers affecting business initiation. Technical infrastructure accessibility impacts operational capabilities. Cultural and social norms influence entrepreneurial support through societal perceptions and value systems.

Lisowska's research[2] establishes three primary determinant categories:

- Educational determinants encompass entrepreneurial characteristic development, creativity enhancement, and self-esteem cultivation through socialization processes and formal education systems.
- Sociocultural determinants manifest through societal acceptance patterns, entrepreneurial perception frameworks, and gender-specific stereotypes affecting business ownership.
- Economic determinants operate through regulatory systems, taxation frameworks, and financial access mechanisms affecting private enterprise development.

Research by Carter et al. (2007)[3] identifies six primary domains in female entrepreneurship studies:

- Entrepreneurial characteristics research examines demographic patterns and motivational factors, revealing more similarities than differences between gender groups.

[1] GEM (Global Entrepreneurship Monitor) (2023). *Global Entrepreneurship Monitor 2023/2024 Global Report: 25 Years and Growing*. London: GEM.
[2] Lisowska, E. (2001) *Women entrepreneurship in Poland in comparison to Central and Eastern European countries*, SGH, Warsaw.
[3] Carter N.M., Manolova T.S., Manev I.M., Gyoshev B.S. (2007), *The differential effect of men and women entrepreneurs' human capital and networking on growth expectancies in Bulgaria,* Entrepreneurship Theory and Practice, 31(3), pp. 407-426

- Resource acquisition studies demonstrate systematic differences in access patterns during business initiation and development phases.
- Managerial research focuses on family-business integration dynamics within women's entrepreneurial careers.
- Financial analysis examines access patterns and discrimination factors affecting women-owned enterprises.
- Network analysis reveals similar behavioral patterns across genders but different network composition preferences.
- Performance measurement research examines success metrics and growth patterns.

The GEM 2022/23 Women's Entrepreneurship Report[4] provides quantitative evidence of gender-specific motivational patterns. Data demonstrates a higher female probability of business initiation due to employment scarcity (ratio 1.08) and social impact motivation (ratio 1.05). Statistical analysis shows 72.9% of women citing job scarcity as a primary motivator compared to 67.2% of men, while 52.3% of women identified social impact as a key driver versus 50% of men.

Research by González and Kobylińska[5] reveals systematic patterns in female entrepreneurial behaviour across multiple dimensions. Their analysis demonstrates distinct characteristics that differentiate female entrepreneurship approaches from traditional models.

Business objective analysis reveals that women entrepreneurs demonstrate a stronger orientation toward social benefit outcomes compared to their male counterparts focus on economic profitability. Motivational research indicates that workplace dissatisfaction frequently catalyses female entrepreneurial initiatives, with women viewing enterprise creation as a mechanism for idea development, self-validation, and professional autonomy.
Sectoral distribution patterns, documented by the World Bank's Female Entrepreneurship Resource Point, show the concentration of female-owned enterprises in traditional retail and service sectors. This concentration correlates with documented challenges in financial resource access, resulting in reduced female participation in capital-intensive sectors such as international trade and agriculture.

Educational and experiential analysis indicates improving access to primary and secondary education for women, though significant gaps persist in practical business experience. Research demonstrates that male entrepreneurs typically benefit from greater access to pre-entrepreneurial work experience, while higher education levels correlate with enhanced adaptability to market dynamics.

Perceptual research reveals complex patterns in entrepreneurial self-assessment. While women generally view entrepreneurship as an attractive career option associated with high status, they demonstrate greater skepticism regarding operational capabilities compared to male counterparts. This manifests in social media behavior through reduced achievement communication and preference for stability over high-risk expansion strategies.

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[4] *GEM 2022/23 Women's Entrepreneurship Report: Challenging Bias and Stereotypes, © 2023 The authors and the Global Entrepreneurship Research Association (GERA)*

[5] Clara Orantos González and Urszula Kobylińska; Female entrepreneurship in Poland and Spain – comparative analysis; Academy of Management – 6(1)/2022. DOI: 10.24427/az-2022-0001

Environmental analysis shows higher prevalence of home-based and informal operations among female-run businesses, reflecting persistent work-life balance challenges. The research indicates that entrepreneurial independence particularly appeals to women seeking schedule flexibility for family responsibilities, especially in contexts where external employment faces social or safety constraints.

Financial access patterns demonstrate systematic challenges in funding acquisition and network utilization among female entrepreneurs. However, research reveals emerging patterns of gender-based solidarity, with women showing higher probability of investing in female-led projects. Studies attribute funding difficulties partly to reduced personal asset availability for credit collateral.

Institutional framework analysis reveals dual impact mechanisms. Economic freedom facilitates innovation and enterprise development, while public sector scale influences market accessibility. Research by Pappas et al. (2017) indicates these factors demonstrate particularly pronounced effects on female entrepreneurship rates.

This empirical analysis demonstrates that female entrepreneurship exhibits distinct characteristics shaped by complex interactions between personal motivations, structural constraints, and institutional frameworks. Understanding these patterns proves essential for developing effective support mechanisms and policy interventions.

Sectoral analysis, supported by World Bank data, demonstrates female enterprise concentration in retail and service sectors. Educational access analysis indicates improving gender parity in primary and secondary education while highlighting persistent gaps in technical skills and practical experience. Perceptual research reveals complex patterns of entrepreneurial self-assessment, with women demonstrating higher skepticism regarding entrepreneurial capabilities despite positive career perception.

Research demonstrates dual mechanisms of institutional impact on female entrepreneurship. Economic freedom facilitates innovation and enterprise development, while public sector scale influences market accessibility. Studies indicate pronounced effects of these factors on female entrepreneurship rates.

The analysis of female entrepreneurship remains multifaceted, encompassing economic policy, employment dynamics, and demographic considerations. The variety of factors affecting women's professional activity, particularly their entrepreneurial characteristics, necessitates a specific analysis of structural trends and their underlying causes within different contexts.

FEMALE ENTREPRENEURSHIP DETERMINANTS

Research conducted by IntoTheMinds (2021) [6] across 840 European business creators provides comprehensive empirical evidence of gender-based variations in entrepreneurial approaches and success determinants. The study reveals systematic differences across multiple operational and behavioral dimensions.

Empirical data demonstrates distinct motivational frameworks between genders. Female entrepreneurs exhibit a pronounced preference for autonomy and flexibility, with occurrence rates approximately three times higher than other motivational factors. In contrast, male entrepreneurs display stronger market opportunity orientation, demonstrating a 12-percentage point higher probability of citing market opportunities as their primary entrepreneurial driver.

Analysis of pre-launch activities reveals systematic gender-based variations in preparation methodologies. Female entrepreneurs demonstrate higher engagement with formal education, evidenced by 43.3% pursuing sector-specific training compared to 31.9% of male counterparts. However, operational preparation metrics indicate lower female engagement in business plan development (34.6% versus 42.5% for males) and market research activities (25% versus 33% for males).

Experience metrics reveal substantial gender disparities. Professional experience data shows 34.1% of women entrepreneurs possess more than ten years of experience, contrasting with 47.1% of male entrepreneurs. Prior entrepreneurial experience demonstrates even more pronounced disparity, with 5.3% of women reporting previous business creation experience compared to 18.4% of men.

Business structure analysis indicates strong preference variations, with 82.5% of women operating as solo entrepreneurs versus 69.8% of men. Partnership engagement shows similar disparity patterns, with women demonstrating approximately half the partnership rate (12.4% versus 22.9%).

Confidence metrics reveal systematic differences in self-perception and future outlook. Male entrepreneurs demonstrate higher current success confidence (72.4% versus 65.3%) and future outlook confidence (64.7% versus 48.2%). Professional support utilization data indicates lower female engagement with professional services, particularly in accounting (34.9% versus 38.7%) and external consultation (14.5% versus 19.2%).

Research indicates persistent sociocultural barriers specific to female entrepreneurs. These manifest through culturally conditioned stereotypes regarding gender roles and professional capabilities. The evidence suggests these factors significantly influence self-confidence levels and network development capabilities among female entrepreneurs.

[6] Pierre-Nicolas Schwab" Entrepreneurship : 7 key differences between women and men", https://www.intotheminds.com/blog/en/entrepreneurship-differences-women-men/

Heilbrunn's research[7] establishes a comprehensive theoretical framework identifying five primary constraint categories: external economic environment factors, venture life-cycle challenges, product and industry-specific difficulties, management-related problems, and entrepreneur personality constraints.

Contemporary research identifies multiple interconnected factors influencing female entrepreneurial activity. These comprise objective/structural factors (including business objectives, operational domain, formation patterns, and experiential background), emotional factors (encompassing perception patterns, self-efficacy measures, failure apprehension, stereotypical influences, and motivational drivers), and environmental elements (including family dynamics, media influence, funding accessibility, innovation capacity, and institutional framework).

Research by Bhakuni et al.[8] demonstrates that female entrepreneurship operates within a complex framework of interconnected factors that both enable and constrain business development. Sociocultural norms and gender roles exert significant influence on entrepreneurial opportunities, with traditional expectations and stereotypes creating systematic barriers to resource access, network development, and business scaling capabilities.

Financial access emerges as a critical determinant of entrepreneurial success. Empirical evidence indicates that women-owned enterprises consistently receive lower funding allocations compared to male-counterpart businesses. This disparity stems from documented investment decision biases and underrepresentation of women in financial institution leadership roles, resulting in restricted growth prospects for female-led ventures.

Educational and training accessibility demonstrates substantial impact on entrepreneurial outcomes. Research reveals that disparities in quality education access and relevant skill development programs significantly affect women's entrepreneurial confidence, operational capabilities, and business management expertise. These educational gaps create systematic barriers to successful enterprise launch and management.
Market analysis reveals distinctive patterns in female entrepreneurial strategy. Women entrepreneurs demonstrate particular aptitude for identifying and developing niche market opportunities that address specific consumer needs. This strategic focus on innovation and differentiation contributes to economic diversification and market growth through unique product and service development.

Technological advancement, particularly in digital platforms, has created new entrepreneurial pathways. E-commerce infrastructure and social media platforms provide cost-effective market access mechanisms, enabling female entrepreneurs to transcend geographical constraints and reach global customer bases. This digital transformation partially equalizes competitive dynamics in the entrepreneurial ecosystem.

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[7] Heilbrunn Sibylle, "Impact of Gender on Difficulties Faced by Entrepreneurs" , International Journal of Entrepreneurship and Innovation, August 2004, DOI: 10.5367/0000000041513420

[8] Seema Bhakuni, Mahesh Yallappa Kambar, Surbhi Rathod, Umesh Rathod, Rupam Mukherjee; Female entrepreneurship: barriers, opportunities, and impact on global economies; Remittances Review; June, 2023 ; Volume: 8, No: 4, pp. 2425-2435 remittancesreview.com

Policy framework analysis indicates that supportive government initiatives significantly influence entrepreneurial success rates. Programs promoting gender equality, combined with access to mentorship, incubation resources, and financial incentives, demonstrate effectiveness in mitigating female-specific business challenges.

Economic impact research reveals substantial contributions of female entrepreneurship to growth metrics. Increased women's participation in enterprise ownership correlates with job creation, income generation, and local economic development. Female-led businesses demonstrate particular effectiveness in fostering community development outcomes.

Innovation analysis indicates that gender diversity in entrepreneurship enhances creative output and market responsiveness. Female entrepreneurs introduce diverse perspectives to product development and service delivery, resulting in broader consumer need fulfilment and market expansion.

Socioeconomic research demonstrates that female entrepreneurship generates both economic and social empowerment outcomes. Financial independence enables enhanced decision-making autonomy regarding education, health, and lifestyle choices, contributing to broader societal development patterns.

This systematic analysis reveals the multifaceted nature of female entrepreneurship influences, encompassing structural, cultural, and technological factors that shape entrepreneurial opportunities and outcomes. Understanding these interconnected elements proves essential for developing effective support mechanisms and policy interventions.

The empirical evidence demonstrates that female entrepreneurship faces multifaceted challenges rooted in structural, sociocultural, and economic factors. The persistence of these disparities, despite significant socioeconomic progress, indicates the necessity for targeted interventions addressing both structural and psychological barriers. The research suggests that effective support mechanisms must address both tangible resource constraints and intangible sociocultural factors to promote balanced entrepreneurial development.

GENDER ENTREPRENEURSHIP GAP

The gender entrepreneurship gap represents a quantifiable disparity in business ownership, management, and success rates between male and female entrepreneurs. Research[9] demonstrates that despite women constituting approximately half of the global population, their representation in entrepreneurial activities remains disproportionately low. This disparity manifests through multiple measurable dimensions: lower business ownership rates, reduced revenue generation, slower growth trajectories, higher failure rates, and increased prevalence of necessity-driven entrepreneurship among women.

The OECD/European Commission Report (2021) provides robust empirical evidence of this gap, demonstrating that women exhibit a 40% lower likelihood of engaging in self-employment compared to men. Within the European Union context, quantitative analysis reveals that among 88.6 million working women, approximately 8.5 million were self-employed in 2020, contrasting with 17.4 million self-employed among 103.4 million working men. Longitudinal analysis indicates a 15% reduction in this gap since 2002, though this improvement primarily stems from declining male self-employment rates rather than increased female participation.

The European Investment Bank's survey[10] reveals distinct operational patterns in women-led enterprises. Research demonstrates distinctive patterns in the operational characteristics and performance metrics of women-led enterprises. Employment analysis reveals consistent gender-based hiring preferences across geographical contexts, with women-led firms showing higher female employment rates in both EU and non-EU territories. The EIB special survey on startups and scale-ups provides additional evidence of positive female employment effects within dynamic market segments.

Innovation metrics indicate the enhanced probability of new product and process introduction among female-led firms. This may correlate with transformational leadership styles more commonly observed among female leaders. These leadership approaches emphasize trust-building, creativity enhancement, and skill development facilitation, creating conditions conducive to organizational innovation.

Management practice analysis reveals systematic differences in operational approaches. Survey data indicates that female-led enterprises demonstrate higher likelihood of implementing structured management systems, particularly in performance monitoring and indicator establishment.

Financial structure analysis shows distinct patterns in capital sourcing and management. Data indicates lower rates of complete self-financing (autarky) among female-led firms, suggesting stronger engagement with external financial sectors. This pattern indicates strategic preference for maintaining financial sector connections despite potential growth limitations of self-financing approaches.

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[9] Vossenberg, S. (2013).Women entrepreneurship promotion in developing countries: What explains the gender gap in entrepreneurship and how to close it? *Maastrict School of Management*, Working Paper No. 2013/08.
[10] OECD/European Commission (2021), *The Missing Entrepreneurs 2021: Policies for Inclusive Entrepreneurship and Self-Employment*, OECD Publishing, Paris, https://doi.org/10.1787/71b7a9bb-en.

Access to finance remains a significant operational challenge, with survey data indicating 7% of EU-based and 12% of neighboring country female-led firms identifying it as a primary obstacle. While overall gender differences appear modest, the impact on operational capabilities remains substantial.

Financing mix analysis reveals gender-specific patterns in capital sourcing strategies. Enterprise survey data demonstrates stronger reliance on traditional banking finance among female-led firms for both investment and working capital requirements. This pattern suggests systematic differences in financial resource access and utilization strategies.

Research indicates particular financing challenges for women-led firms in dynamic market segments. Analysis of startup and scaleup funding patterns reveals systematic differences in both funding mix and source accessibility, suggesting potential misalignment between financial systems and high-growth female entrepreneurship requirements.

Strategic orientation analysis reveals potential confounding factors in performance metrics. Survey data indicates that female founders demonstrate different scaling priorities compared to male counterparts, with reduced emphasis on rapid expansion. The operational focus tends toward service provision through human capital rather than digital technology integration or intellectual property development.

The Global Entrepreneurship Monitor's 2022/23 Women's Entrepreneurship Report[11] provides comprehensive data on international entrepreneurship patterns. Quantitative analysis reveals that globally, one in six women report entrepreneurial intentions, compared to one in five men. Early-stage business activity shows a ratio of one in ten women versus one in eight men. Educational attainment analysis demonstrates higher levels of graduate education among women entrepreneurs (W/M ratio: 1.08), though this advantage does not translate to equivalent economic outcomes, as evidenced by lower representation in upper-income brackets (W/M ratio: 0.72).

Motivational research reveals significant gender-based variations. Data indicates that 72.9% of women cite employment scarcity as a primary entrepreneurial driver, compared to 67.2% of men. Business discontinuation analysis shows marginally lower global exit rates among women (3.5%) versus men (3.8%). Primary cessation factors include profitability challenges (24.2%), pandemic-related disruptions (16.4%), and personal circumstances (18%).

Cultural perception analysis demonstrates significant influence on entrepreneurial decision-making. Global data indicates that 63.2% of women perceive business ownership as a viable career path, while only 45.6% consider business initiation accessible, compared to 50.7% of men. Economic context analysis reveals variation across income levels, with opportunity perception rates of 63.4% in low-income environments contrasting with 38.9% in high-income contexts.

Research identifies persistent structural impediments in female entrepreneurship. Financial access remains a primary challenge, consistently ranking among the top five obstacles in EIB survey data. Sector analysis reveals significant underrepresentation in high-growth industries, with female-founded

[11] GEM 2022/23 Women's Entrepreneurship Report: Challenging Bias and Stereotypes, © 2023 The authors and the Global Entrepreneurship Research Association (GERA)

startups comprising 23% in the United States, 20% in the United Kingdom, and 11% in the European Union.

The theoretical understanding of these disparities is contextualized through two primary analytical frameworks. Social feminism emphasizes internal structural determinants, suggesting that established social architectures influence socialization patterns, experiential development, and motivational factors. Conversely, liberal feminist theory attributes disparities to external structural factors, particularly discriminatory practices and resource access limitations.

The persistence of gender entrepreneurship gaps, despite modest temporal improvements, indicates the necessity for targeted interventions addressing both practical impediments and underlying social determinants. The research suggests that effective resolution requires comprehensive approaches addressing both structural barriers and cultural factors influencing women's entrepreneurial participation and success trajectories.

FEMALE ENTREPRENEURSHIP IN IRELAND, POLAND AND SPAIN

The comparative analysis of female entrepreneurship in Ireland, Poland, and Spain reveals distinct patterns and challenges in women's business participation across European contexts. These three countries, while operating within the European Union framework, demonstrate varying levels of female entrepreneurial engagement, support structures, and success metrics. The Mastercard Index of Women Entrepreneurs (MIWE) 2021 positions Ireland at 12th place globally, followed by Spain at 15th and Poland at 21st, indicating significant variations in entrepreneurial ecosystems and women's business participation. This analysis examines the multifaceted nature of female entrepreneurship through various metrics, including business ownership rates, necessity-driven entrepreneurship, and structural support systems, providing insights into both common challenges and country-specific characteristics that shape women's entrepreneurial activities in these regions.

The presentation of trends in the area of women's entrepreneurship in the partner countries of the FEM-SKILLS project was based on the available results of national surveys, to be followed by the results of the Mastercard Entrepreneurial Women's Index.

Female Entrepreneurship in Ireland

Ireland's female entrepreneurship landscape presents an intriguing mix of challenges and opportunities, with distinct characteristics that shape women's entrepreneurial journey. Despite widespread recognition of women entrepreneurs' importance, Ireland shows relatively low participation rates in entrepreneurial activities compared to other developed nations.

In terms of entrepreneurial activity, the data reveals significant gender disparities. While nearly 800 women per month started their own businesses in 2010, this number was considerably lower than the approximately 1,650 men who did so. Women represent only 15-18% of established entrepreneurs in Ireland, with men being nearly two and a half times more likely to engage in early-stage entrepreneurial activity. The ratio between men and women entrepreneurs (2.4 to 1) is higher than typical OECD (2 to 1) and EU-15 (1.8 to 1) averages.

What makes female entrepreneurship particularly interesting in Ireland is the distinct profile of women entrepreneurs. They are highly educated, with 86% having post-secondary education compared to 74% of their male counterparts. However, their business focus tends to be different from men's. More than half of all female early-stage entrepreneurs concentrate on the consumer services sector (54%), with less than 20% venturing into business services and transformative sectors.

The international orientation of women-led businesses also shows notable patterns. Female entrepreneurs demonstrate lower export market focus, with 51% targeting international markets compared to 69% of their male counterparts. This suggests a more localized business approach among women entrepreneurs.

Several key challenges shape the female entrepreneurship landscape in Ireland. These include:
- Lack of proper financing
- Limited prior business experience
- Insufficient training

- Self-selection issues where women are less likely to perceive themselves as entrepreneurs
- Family life pressures
- Shortage of high-profile role models
- Lower self-perception of business skills

To address these challenges, Ireland has developed a comprehensive support ecosystem. This includes various networks and communities such as Network Ireland and the Women in Business Network, along with online platforms like the Irish Business Women Forum. Mentoring programs such as Going for Growth and the Irish Female Ambassadors for Entrepreneurship provide crucial guidance and support.

The importance of networking has been particularly emphasized, with GEM research showing that women are five times more likely to start their own business after meeting other women entrepreneurs. This highlights the crucial role of peer support and mentorship in fostering female entrepreneurship.

Looking toward the future, the development of female entrepreneurship in Ireland holds significant economic potential. Drawing parallels from the US experience, where women are majority owners in 50% of privately owned firms generating $1.9 trillion in turnover and employing 12.8 million people, increasing women's entrepreneurial participation could substantially contribute to Ireland's economic growth and recovery.

The story of female entrepreneurship in Ireland is one of gradual progress and untapped potential. While challenges persist, particularly in areas like funding access and self-perception, the comprehensive support systems being developed and the high educational levels of women entrepreneurs suggest a promising future. The key lies in continuing to strengthen support mechanisms while addressing cultural and structural barriers, enabling Irish women entrepreneurs to fully realize their potential in shaping the country's economic landscape.

Selection of supports for female entrepreneurs in Ireland

Network Ireland

Network Ireland is unique in the fact that it offers support, mentoring and confidence building for women, in particular those starting in business or returning to the workplace. Members can develop and pool their individual skills through interaction and collaboration with other women in a supportive environment which offers training, mentoring and an opportunity to tap into the skills and specialist expertise of other members.

Women in Business

Aims to promote entrepreneurship, foster business start-ups and develop existing micro and small businesses to drive job creation and to provide accessible high quality supports for your Business ideas.

Enterprising Women Network

The Enterprising Women Network (EWN) is a safe place to network with fellow female entrepreneurs. Networking meetings tend to have a more informal tone, but still have structure. EWN is made up of a group of really supportive ladies. Early stage or pre-start businesses are made just as welcome as long established businesses. In fact, this dynamic in the network lends itself to great support for all involved.

Going for Growth
Going for Growth is designed to support women who are serious about growing their businesses and are the owner manager of a business which has been trading for at least two years. At Going for Growth, we believe that entrepreneurs learn best from each other. Accordingly, the initiative is based on interactive roundtable sessions that are facilitated, not by consultants, academics or professional trainers, but by successful entrepreneurs.

ACORNS
The ACORNS programme has been designed to support early-stage female entrepreneurs living in rural Ireland and runs over six months part-time. Based on a belief that entrepreneurs learn best from each other, the ACORNS initiative is centred around interactive round table sessions that are facilitated by female entrepreneurs, known as 'Lead Entrepreneurs', who have started and successfully grown businesses in rural Ireland.

The Local Enterprise Offices
The first-stop shop for seeking information and support on starting or growing a business in Ireland. Whether you are a new entrepreneur or an existing small business owner. The Local Enterprise Office provides advice, information and support to you in starting up or growing your business. With 31 dedicated teams across the Local Authority network in Ireland, Local Enterprise Offices offer you a wide range of experience, skills and services

Women Mean Business
The business platform for working women. We are passionate about all things women-related. Offers a cornucopia of news, interviews, reviews, and advice specifically written for businesswomen and female entrepreneurs.

Female Entrepreneurship in Poland
Female entrepreneurship in Poland presents a unique landscape with significant growth potential, despite persistent challenges and structural barriers. Polish women, at approximately 35%, rank among the most entrepreneurial in the European Union, yet their participation remains below their true potential when measured against their share in the population and working age groups.

What makes female entrepreneurship particularly interesting in Poland is the distinct profile of women entrepreneurs. They are notably better educated than their male counterparts, with 23% holding university degrees compared to 14% of men. This educational advantage extends to technical fields, with 34% graduating from technical studies and constituting 45% of graduates in mathematics and sciences. However, this higher educational attainment hasn't fully translated into entrepreneurial success, revealing an intriguing paradox in the Polish business landscape.

The journey of Polish women entrepreneurs is significantly shaped by both structural and personal factors. With only 53.1% of women economically active, there exists a vast pool of untapped entrepreneurial potential. Women entrepreneurs demonstrate similar motivations to men for starting businesses, with 22% seizing business opportunities, 18% responding to lack of employment options, and 15% seeking greater autonomy and independence. However, they uniquely factor in home and childcare responsibilities when building and developing their firms.

In terms of business characteristics, women-led enterprises in Poland show distinct patterns. Female entrepreneurs typically operate smaller businesses than men, with only one in four having employees compared to male entrepreneurs who employ approximately nine persons. While female-managed companies incur higher salary and operational costs and generate higher revenues, they tend to be less profitable, primarily due to their concentration in sectors like agriculture, trade, social and health services, and education.

The cognitive and emotional aspects of female entrepreneurship in Poland present an interesting contradiction. Despite being very resourceful in terms of perceived opportunities, women exhibit lower confidence levels and higher fear of failure (64% compared to 53% for men). This psychological barrier, combined with traditional social roles and expectations, significantly influences their entrepreneurial journey.

Support systems and resources for female entrepreneurs continue to evolve within Poland's institutional framework. The Office of the Government Plenipotentiary for Equal Treatment, established as a permanent body in 2010, oversees gender equality initiatives, including the National Programme for Equal Treatment 2013-2016. Recent pro-family policies, including improved parental leave options and childcare support, aim to address work-life balance challenges.

Looking toward the future, the development of female entrepreneurship in Poland requires addressing several key areas. The insufficient institutional childcare infrastructure (only 33% nursery care and 50% kindergarten coverage in urban areas) remains a significant barrier. Additionally, the lack of a dedicated body for female enterprise support and fragmented data collection hampers effective policy development.

The story of female entrepreneurship in Poland is one of gradual progress and significant untapped potential. While women demonstrate strong entrepreneurial capabilities and high educational attainment, they continue to face multiple barriers that require comprehensive policy solutions. The higher education of women entrepreneurs could potentially compensate for current weaknesses, such as smaller-scale operations and concentration in less profitable industries, suggesting a promising future if properly supported.

This evolving narrative of female entrepreneurship in Poland serves not only as a reflection of current business dynamics but also as an indicator of broader social change. The key to future success lies in strengthening support mechanisms while addressing cultural and structural barriers, enabling Polish women entrepreneurs to fully realize their potential in shaping the country's economic landscape.

The analysis shows that while Polish women demonstrate remarkable entrepreneurial potential, realizing this potential will require sustained economic growth, improved institutional support, and continued efforts to break down traditional barriers to women's business success.

Selection of supports for female entrepreneurs in Poland
My business abroad
A free development and mentoring program for entrepreneurs who are thinking about expanding abroad but don't know how to get started. It is implemented by the Women's Entrepreneurship Foundation in partnership with the Polish Investment and Trade Agency and Business France.

NEXT

An educational development and mentoring program for women-led companies that plan to expand into foreign markets. The program offers: lectures, workshops, business mentoring, panel discussions and networking with other female entrepreneurs.

Membership in the Network of Entrepreneurial Women
Networking and mentoring support for female entrepreneurs at every stage of the company's conversation. Access to networking, visibility in Entrepreneurial Women's Network's social channels, priority enrollment in free development programs, networking meetings for female entrepreneurs.

Women Tech EU
Women TechEU offers: financial support for the company in the form of a €75,000 individual grant to support the first steps in the innovation process and company development; mentoring and coaching provided by EIC Business Acceleration Services, which includes dedicated networking and pitching events; Opportunity to participate in dedicated activities organized by InvestEU and Enterprise Europe Network.

The Lipstick-written Success Contest
For 16 years, the Lipstick-written Success Contest has been rewarding female entrepreneurs, activists, social activists, educators, as well as leaders and leaders and organizations that courageously shape the future, fighting for equality, diversity and inclusion. This award recognizes people who are changing the world for the better!

Open Mentoring Program
Since 2010, Vital Voices Poland has organized an Open Mentoring Program for women who want to become better leaders, take responsibility and change the world around them.

Polish Network of Female Entrepreneurship Ambassadors
The platform that facilitates the cooperation of entrepreneurial women in Poland and in various countries around the world.

Female entrepreneurship in Spain

Female entrepreneurship in Spain has undergone significant evolution over the past two decades, revealing a complex landscape of opportunities, challenges, and distinctive characteristics that shape women's entrepreneurial journey. Since 2005, women's participation in entrepreneurial activities has shown encouraging growth, reaching a peak of 6% in 2018, though they still represent only 19% of the consolidated entrepreneurial ecosystem.

What makes female entrepreneurship particularly interesting in Spain is the unique way women approach business creation and management. Spanish women entrepreneurs tend to focus more on social entrepreneurship and service sectors, often establishing businesses that align with their values and allow for work-life balance. This preference isn't merely a choice but reflects deeper structural and social factors that influence their entrepreneurial path.

The journey of Spanish women entrepreneurs is significantly shaped by their educational background and previous experience. While women often possess high educational qualifications, they frequently face challenges due to limited prior experience in executive positions - a manifestation of the persistent "glass ceiling" in corporate environments. However, this apparent limitation has led to an interesting phenomenon: women entrepreneurs in Spain often demonstrate higher success rates in their ventures, possibly because they tend to seek more solid funding sources and approach business planning more cautiously.

In terms of business characteristics, women-led enterprises in Spain show distinct patterns. Approximately 80% of new female-led businesses operate in the service sector, with over half starting as solo ventures without employees. These businesses typically require less initial capital - about 11% less than their male counterparts - but this also often translates into smaller-scale operations with lower technological integration and international reach.

The cognitive and emotional aspects of female entrepreneurship in Spain present an intriguing paradox. While Spanish women entrepreneurs demonstrate strong capabilities and resilience, they often face greater psychological barriers, particularly fear of failure. Their motivations tend to be multifaceted, combining the need for independence with social development goals and economic necessity. This complex motivational framework often leads to more sustainable, though perhaps less aggressive, business growth strategies.

The impact of the COVID-19 pandemic has added new dimensions to female entrepreneurship in Spain. Women entrepreneurs have shown remarkable adaptability, embracing digital transformation and developing new business models. The crisis has highlighted both the vulnerabilities and strengths of women-led businesses, pushing many to innovate and adapt their operations while reinforcing the importance of support networks and digital capabilities.

Support systems and resources for female entrepreneurs in Spain continue to evolve. The ecosystem increasingly recognizes the need for targeted approaches, including specialized financing options, mentoring networks, and training programs focused on technology and management skills. There's a growing emphasis on promoting STEM competencies among women entrepreneurs and creating more inclusive networking opportunities.

Looking toward the future, the development of female entrepreneurship in Spain requires a holistic approach. This includes addressing structural barriers while building on existing strengths. The focus is shifting toward creating more comprehensive support systems that combine public policies, educational initiatives, and cultural change to foster an environment where women entrepreneurs can thrive.

The story of female entrepreneurship in Spain is one of gradual but steady progress, characterized by resilience and adaptation. While challenges persist, particularly in areas like technology integration and international expansion, the increasing success rates of women-led businesses and their growing influence in the entrepreneurial ecosystem suggest a promising future. The key lies in continuing to strengthen support systems while breaking down remaining barriers, allowing Spanish women entrepreneurs to fully realize their potential in shaping the country's economic and social landscape.

This evolving narrative of female entrepreneurship in Spain serves not only as a reflection of current business dynamics but also as an indicator of broader social change, pointing toward a more inclusive and diverse entrepreneurial future.

Selection of supports for female entrepreneurs in Spain

Business Microfinancing
As part of the PAEM program, this initiative offers access to microfinancing of up to 25,000 euros for women who are considering starting their own company or advancing and consolidating an already established one. No third-party approvals from program beneficiaries are required, and the loans are offered on very favorable terms.

Grants, subsidies, and financial assistance in various regions of Spain
The Chamber of Commerce website provides a list of programs that are active in all regions of the country.

European Prize for Women Innovators
This annual European award is given to women entrepreneurs who have implemented the most revolutionary innovations in Europe. You can receive up to 100,000 euros.

PAEM
A national program supported by the Women's Institute and the Chamber of Commerce of Spain with joint financing from the European Social Fund. Its goal is to provide counseling and education to women with business ideas or projects, or plans to modernize and expand existing companies. Assistance is provided in more than 50 chambers of commerce located throughout the country.

DESAFÍO MUJER RURAL
An initiative by the Women's Institute, co-financed by the European Social Fund, which promotes the development of women entrepreneurs living in rural areas. It offers consultancy, auditing, and training in all aspects related to launching and managing entrepreneurial projects.

Women in Tech
The Spanish branch of an international community that supports women in IT entrepreneurship. It offers events, seminars, training camps, and a job exchange.

Juana Millán Entrepreneur School
Offers online courses tailored to women studying economics and developing their projects in various fields. The school promotes continuous networking and exposure to successful case studies. It annually awards prizes to the most outstanding women entrepreneurs.

Women's Entrepreneurship Academy
A project by a young female influencer named Jeylan, who hosts a thematic podcast. It offers networking, coaching, and seminars for women entrepreneurs.

41 FEMALE ENTREPRENEURSHIP
A Dutch project supported by the EU that focuses on teaching women entrepreneurship with a social focus, such as for refugee and immigrant women. It offers online courses in various languages.

INNOVATIA 8.3
A program geared towards training women in entrepreneurship. It has its own educational platform and a wealth of instructional materials on starting and running a business.

Female Foundry

A community of women involved in venture business, both as founders and investors. On their website, you can find informational resources and inspiring stories.

With
A community of women entrepreneurs supported by the European Union. It offers networking, informational support, and training

Girls in Tech
The Spanish branch of an international community supporting women in IT entrepreneurship. It offers events, seminars, training camps, and a job exchange.

W startup community
An association of women entrepreneurs in the IT field that started in Spain but has become international. They work together to increase women's representation and leadership in startups.

Womenalia
Facilitates professional development and growth for women in various fields through knowledge exchange, networking, and various events.

WEegate
A community of women entrepreneurs supported by the European Union. It offers networking, informational support, and training.

A comparative analysis based on the Mastercard Index of Women Entrepreneurs (MIWE)
MIWE provides valuable insights into how women are progressing in business environments across the globe. Through its comprehensive analysis of socioeconomic factors, the index helps understand what nurtures or hinders women's ability to thrive in business. The 2021 report assessed 65 countries, measuring women's progress against both their male counterparts and global peers.

The index is built on three main components: women's advancement outcomes, knowledge assets and financial access, and entrepreneurial supporting conditions. Each component provides unique insights into the state of women's entrepreneurship.

Looking at Ireland, Spain, and Poland, we see interesting patterns emerging. In the overall global ranking, Ireland leads the group at 12th place, followed by Spain at 15th and Poland at 21st. However, diving deeper reveals more nuanced stories for each country.

The Women's Advancement Outcomes component measures women's progress and potential marginalization in economic and professional spheres. Here, Poland shows particular strength in women's business leadership, with women comprising 43.1% of business leaders - the highest among the three countries and showing a 0.7% increase from 2020. Ireland follows with 35.7%, and Spain with 33.3%, both recording 0.6% increases from the previous year.

Changes in women business leaders in MIWE's 65 economies – female as % of total

	MIWE 2021	MIWE 2020	Change %
Ireland	35.7	35.0	0.6
Poland	43.1	42.3	0.7
Spain	33.3	32.7	0.6

When it comes to entrepreneurial activity, Ireland leads with 8.9% female entrepreneurial activity, though this is still notably lower than the male rate of 15.5%. Spain and Poland show lower overall rates, with Spain at 4.8% female (versus 5.6% male) and Poland at 2.4% female (versus 3.8% male).

Changes in female and male entrepreneurial activity in MIWE's 65 economies (2021 vs 2020)

	MIWE 2021		MIWE 2020		Change %	
	Female	Male	Female	Male	Female%	Male %
Ireland	8.9	15.5	9.0	15.9	- 0.1	-0.4
Poland	2.4	3.8	5.1	5.7	2.7	-1.9
Spain	4.8	5.6	6.0	6.3	-1.2	-0.7

An important metric within this component is necessity-driven entrepreneurship - businesses started out of necessity rather than opportunity. Spain shows the highest rate at 74.1% for women, followed by Poland at 65.7%, and Ireland at 44.8%. All three countries saw significant increases in this metric from 2020 to 2021, suggesting that economic conditions may have pushed more women into entrepreneurship out of necessity.

Female vs male necessity-driven entrepreneurship (%), MIWE 2020 - MIWE 2021

	MIWE 2021		MIWE 2020		Change %	
	Female	**Male**	Female	**Male**	Female%	**Male %**
Ireland	44.8	38.3	19.3	19.6	25.50	18.70
Poland	65.7	59.8	15.7	15.9	**50.00**	**43.90**
Spain	74.1	70.7	47.0	37.8	27.10	32.90

In terms of Knowledge Assets and Financial Access, which measures aspects like access to financial services and educational opportunities, Spain performs exceptionally well, ranking 9th globally. Ireland follows at 17th place, with Poland at 24th. This component is crucial as it reflects the fundamental resources available to women entrepreneurs.

The Entrepreneurial Supporting Conditions component, which evaluates the overall business environment, shows Ireland in a strong position, ranking 5th globally and improving three positions from 2020. In contrast, both Poland and Spain saw declines in this area, dropping seven positions each to rank 33rd and 36th respectively.

Country	Component C score				Component C ranking			
	MIWE 2021	MIWE 2020	MIWE 2019	Change from 2020 to 2021	MIWE 2021	MIWE 2020	MIWE 2019	Change from 2020 to 2021
Ireland	71.8	71.8	71.0	0.0	5	8	9	3^
Poland	60.0	61.6	63.0	-1.6	33	26	20	7v
Spain	58.9	61.0	60.3	-2.1	36	29	28	7v

A key benchmark in the MIWE is the measurement of women business owners as a percentage of total business owners. This metric specifically looks at owners who employ at least one employee besides themselves, providing insight into women's role in job creation. Spain leads this metric among the three countries with 30.2% women business owners, ranking 9th globally. Poland follows closely with 29.1% (ranked 14th), while Ireland shows a lower rate of 23.3% (ranked 39th).

Changes in scores and ranking for women business owners between MIWE 2019 and MIWE

Country	Women business owners score				Women business owners ranking			
	MIWE 2021	MIWE 2020	MIWE 2019	Change from 2020 to 2021	MIWE 2021	MIWE 2020	MIWE 2019	Change from 2020 to 2021
Spain	30.2	29.9	31.1	0.2	9	12	8	3^
Poland	29.1	29.6	29.9	-0.5	14	14	11	-
Ireland	23.3	23.1	23.6	0.2	39	42	36	3^

These findings paint a complex picture where each country shows distinct strengths and areas for improvement. Spain demonstrates strong performance in business ownership and access to resources, Ireland excels in creating supportive conditions for entrepreneurship while showing room for growth in business ownership, and Poland shows impressive women's representation in business leadership while facing challenges in entrepreneurial activity rates. The variations across metrics suggest that different approaches may be needed in each country to further support and enhance women's entrepreneurship.

The examination of female entrepreneurship across Ireland, Poland, and Spain reveals both shared challenges and distinct national characteristics that influence women's business success. The MIWE data demonstrates that while Ireland excels in creating supportive entrepreneurial conditions (ranking 5th globally), it lags in women's business ownership (23.3%). Conversely, Spain leads in women business ownership (30.2%) and shows strong performance in knowledge assets and financial access (ranking 9th), while Poland demonstrates impressive women's representation in business leadership (43.1%) despite facing challenges in entrepreneurial activity rates.

The research reveals a significant increase in necessity-driven entrepreneurship across all three countries from 2020 to 2021, with Spain showing the highest rate at 74.1% for women, followed by Poland at 65.7%, and Ireland at 44.8%. These figures suggest that economic conditions have increasingly pushed women into entrepreneurship out of necessity rather than opportunity. The data also highlights persistent structural challenges, including access to finance, work-life balance, and cultural barriers, that continue to influence women's entrepreneurial decisions and success rates.

The findings suggest that while each country has made progress in supporting female entrepreneurship, targeted interventions addressing country-specific challenges are crucial for future development. The success of such interventions will depend on understanding and addressing both universal barriers to female entrepreneurship and the unique cultural, economic, and social factors that shape women's business participation in each national context.

SUCCESS FACTORS AND GLOBAL IMPACT OF FEMALE ENTREPRENEURSHIP

Research demonstrates that entrepreneurship operates as a sequential process, progressing through distinct phases from initial motivation to opportunity identification, resource acquisition, and ultimate performance outcomes (Cabrera & Mauricio)[12]. The success metrics for female entrepreneurship encompass both quantifiable organizational and financial indicators, as well as qualitative measures including work-family integration and autonomy achievement.

The success trajectory of women's entrepreneurship is shaped by interconnected environmental factors operating across multiple systemic levels. At the macro-environmental level, societal values and cultural attitudes significantly influence both collective and individual perceptions of women entrepreneurs. These factors manifest through established gender roles, cultural norms, and prevalent stereotypes. The political and governmental framework, combined with macroeconomic conditions, creates the foundational context for entrepreneurial activity. Legal structures, particularly those addressing gender-based violence and mobility restrictions, fundamentally impact women's ability to engage in business activities. The broader position of women in society, measured through their representation in leadership roles, workforce participation across sectors, and wage parity, creates the essential backdrop for entrepreneurial endeavors.

The mezo-environmental context encompasses the operational business conditions, including regulatory frameworks, infrastructure accessibility, and service availability. A critical factor at this level involves the formal financing system's disposition toward women entrepreneurs, along with the presence or absence of alternative employment opportunities.

Within the micro-environmental sphere, personal and professional networks play a decisive role. These networks comprise family connections, social relationships, and entrepreneurial associations. Family obligations and resource considerations, including availability, capital constraints, and operational costs, directly influence entrepreneurial success at this level. The predominant economic activities in a given region further shape opportunities and challenges.

Internal success factors encompass multiple interconnected dimensions. The opportunity cost analysis of transitioning from employment to entrepreneurship forms a crucial decision point. Entrepreneurial competencies, coupled with specific business skills and relationship management capabilities, constitute the operational foundation. Professional experience, educational attainment, and life background contribute to the knowledge base essential for business success. Career aspirations, incorporating elements of self-realization, financial achievement, innovation capacity, and independence, drive entrepreneurial direction. Personality attributes, particularly persistence, determination, resilience, and creativity, significantly influence entrepreneurial outcomes. Both intrinsic and extrinsic motivational factors, including growth expectations and professional satisfaction, shape business development trajectories.

[12] Ezilda María Cabrera, David Mauricio, (2017) "Factors affecting the success of women’s entrepreneurship: a review of literature", International Journal of Gender and Entrepreneurship, Vol. 9 Issue: 1, pp.31-65, doi: 10.1108/IJGE-01-2016-0001 Permanent link to this document: http://dx.doi.org/10.1108/IJGE-01-2016-0001

Female entrepreneurship generates substantial positive externalities in labour markets. Research by the Global Entrepreneurship Research Association[13] demonstrates that women-led enterprises contribute significantly to reducing gender employment disparities, advancing both SDG 5 (Gender Equality) and SDG 10 (Reduced Inequalities). These businesses consistently demonstrate higher female employment rates across all sectors, particularly in traditionally male-dominated industries such as information technology. Moreover, women-led organizations exhibit stronger commitments to workforce development, implementing more comprehensive training programs with broader employee participation.

Empirical evidence indicates that female-led enterprises achieve superior environmental, social, and governance (ESG) performance metrics. The success of women entrepreneurs creates powerful role model effects, simultaneously advancing gender equality and generating employment opportunities.

Research by Bhakuni et al. (2023)[14] establishes that creating an enabling environment for female entrepreneurs requires systematic collaboration among government agencies, private sector entities, educational institutions, and civil society organizations. Their analysis identifies several interconnected strategic intervention areas necessary for comprehensive support.

Financial access enhancement requires structured institutional response. Research indicates that financial institutions should develop dedicated funding mechanisms with adapted terms and reduced collateral requirements specifically for female entrepreneurs. Government policy can facilitate this through targeted incentives, including tax benefits and subsidies for organizations supporting women-led enterprises.

Mentorship and networking infrastructure development demands systematic approach through established entrepreneur partnerships and professional association engagement. Virtual mentorship platforms demonstrate particular effectiveness in addressing geographical constraints, while regular networking events, both physical and virtual, create essential business collaboration opportunities.

Educational framework enhancement requires curriculum modification to integrate entrepreneurship education with emphasis on practical skill development. Research indicates the importance of business planning, financial management, and digital marketing competencies. Targeted scholarship and grant programs can effectively encourage female participation in entrepreneurial education.

Policy framework development necessitates comprehensive anti-discrimination legislation protecting female entrepreneurs from gender bias and unequal treatment. Research supports implementation of gender quotas in public procurement processes to enhance women-owned business representation in government contracting. Family-support policies, including childcare access and parental leave provisions, demonstrate effectiveness in reducing entrepreneurial barriers.

[13] 2023/24 Women's Entrepreneurship Report Reshaping Economies and Communities © 2024 The authors and the Global Entrepreneurship Research Association (GERA)

[14] Dr. Seema Bhakuni, Mahesh Yallappa Kambar, Surbhi Rathod3,Umesh Rathod4 Dr. Rupam Mukherjee; Female entrepreneurship: barriers, opportunities, and impact on global economies; Remittances Review; June, 2023 ; Volume: 8, No: 4, pp. 2425-2435 remittancesreview.com

Technological integration support requires systematic digital literacy promotion among women entrepreneurs. E-commerce training programs and online marketplace access initiatives show particular effectiveness in expanding global market reach for female-led enterprises.

Data collection and research infrastructure development proves essential for progress monitoring and intervention targeting. Evidence supports collaboration between government entities and research institutions to gather comprehensive data on female-led business operations, challenges, and economic contributions.

Recognition mechanisms play crucial role in entrepreneurial ecosystem development. Research indicates that awards programs, media coverage, and public events effectively inspire female entrepreneurship while challenging existing stereotypes and building societal support.

International collaboration frameworks facilitate knowledge exchange and best practice sharing across borders. Research demonstrates that cross-border partnerships enhance access to markets, technologies, and investment opportunities for female entrepreneurs.

Research demonstrates substantial positive spillover effects from female-led businesses on employment patterns. These enterprises contribute significantly to narrowing gender employment gaps, advancing both SDG 5 (Gender Equality) and SDG 10 (Reduced Inequalities) objectives while promoting inclusive economic growth.

Sectoral analysis reveals varying female representation across industries, though female-led firms consistently demonstrate higher female employment rates across all sectors. This pattern suggests that supporting female-led enterprises can effectively increase women's representation in traditionally underrepresented fields, particularly high-compensation sectors such as information technology.

Female-led enterprises generate additional positive externalities through enhanced training provision. Research indicates these businesses demonstrate higher probability of offering workforce development programs, with broader employee participation rates. The increased female participation in training activities contributes to knowledge development and empowerment beyond organizational boundaries.

Environmental, social, and governance (ESG) performance analysis demonstrates superior scores among female-led firms. This enhanced sustainability performance correlates with reduced welfare dependency and poverty risk mitigation across global and European Union contexts. Evidence indicates that successful female entrepreneurs serve as effective role models, advancing gender equality while generating employment opportunities.

The Global Entrepreneurship Research Association's 25-year analysis reveals systematic patterns in female entrepreneurial attitudes, perceptions, and aspirations across diverse economic contexts. Research particularly highlights policymaker interest in understanding how entrepreneurial perceptions influence business initiation decisions, especially given documented lower rates of perceived opportunities and startup skill confidence among women.

The 2022/23 GEM Women's Report[15] emphasizes the importance of supporting high-potential female entrepreneurs, particularly in high-growth and innovation-intensive sectors. Research challenges stereotypical disadvantage narratives, demonstrating female entrepreneurs' capability to develop successful enterprises despite structural barriers.

Market segmentation analysis proves essential for effective support program design. Evidence indicates substantial variation in outcomes across industry sectors, growth stages, and socioeconomic contexts. Enhanced sector-specific gender analysis can improve understanding of structural differences in entrepreneurial activity rates.

Digitalization support emerges as a critical success factor, particularly following pandemic-driven technology adoption. While digital tools demonstrate clear benefits for sales and employment, implementation challenges persist, especially regarding cost and access in emerging economies and rural markets.

The 2023/24 Women's Entrepreneurship Report advocates for inclusive education and training program development. Research supports establishing public-private partnerships for mentorship programs and creating women-specific business incubation spaces in male-dominated sectors. Early exposure to entrepreneurial environments through youth programs shows particular effectiveness in developing high-growth aspirations.

Recognition mechanisms play crucial roles in advancing female entrepreneurship. Public campaigns highlighting successful women entrepreneurs effectively normalize female leadership and counter negative stereotypes, particularly in underrepresented sectors.

Contemporary research emphasizes the importance of supporting high-potential women entrepreneurs through targeted interventions. This approach necessitates challenging prevalent stereotypes that incorrectly frame women entrepreneurs as disadvantaged, instead recognizing their demonstrated capacity for building successful, large-scale enterprises despite structural barriers.

The effectiveness of entrepreneurial support mechanisms requires careful segmentation analysis, acknowledging variations across industry sectors, business growth stages, and socioeconomic contexts. Digital transformation support has emerged as a critical success factor, with research demonstrating particular benefits for women entrepreneurs in accessing new markets and customer segments.

Environmental and social sustainability impacts of women-led businesses merit specific recognition and support. Research indicates that while sustainability initiatives may present initial cost challenges for smaller enterprises, they generate significant long-term value and market differentiation opportunities.

Evidence indicates that enhancing women's entrepreneurship proves essential for inclusive economic growth and sustainable development. Research demonstrates that supporting female entrepreneurs

[15] 2023/24 Women's Entrepreneurship Report Reshaping Economies and Communities © 2024 The authors and the Global Entrepreneurship Research Association (GERA)

generates both gender equality advancement and broader socioeconomic benefits. Future initiatives require focused attention on structural barrier reduction while providing targeted support for high-potential women entrepreneurs across diverse sectors and contexts.

FEMALE ENTREPRENEURIAL COMPETENCES FRAMEWORK

Research demonstrates a direct correlation between entrepreneurial competencies and the success metrics of women-led businesses, particularly within small and medium enterprises (SMEs). This relationship becomes especially significant in organizations with centralized management structures, where the entrepreneur's capabilities directly influence operational outcomes. The evidence indicates that women entrepreneurs face distinct challenges in the business ecosystem, necessitating a comprehensive competency framework for sustainable success.

Contemporary research advocates for a paradigm shift from traditional assistance models toward an integrated capability-building approach. This transition reflects empirical findings showing that sustainable business success correlates more strongly with internal capability development than external support mechanisms. The framework encompasses multiple interconnected dimensions, ranging from technical business acumen to leadership capabilities, addressing both operational and psychological aspects of entrepreneurial development.

Research by María Bastida (2021)[16] identifies several interconnected mechanisms for developing female entrepreneurial competencies. These mechanisms work synergistically to create a comprehensive support structure that addresses both technical and psychological aspects of entrepreneurship.

Training and skills development constitutes the foundational element of entrepreneurial capability building. Evidence shows that successful programs integrate practical business management competencies with psychological empowerment elements. These programs systematically address core operational areas including financial management protocols, strategic planning methodologies, and business operations frameworks, while simultaneously incorporating strategies for managing work-life integration challenges specific to women entrepreneurs.

The mentoring component creates structured knowledge transfer pathways between experienced entrepreneurs and emerging business leaders. Empirical studies demonstrate that mentoring relationships facilitate both tactical guidance and emotional resilience development. The presence of successful women entrepreneurs as role models serves as a critical success factor, providing concrete evidence of achievable outcomes and practical strategies for overcoming gender-specific challenges in entrepreneurship.

Support networks function as essential infrastructure for ongoing skill development. Research indicates that women-focused business networks and associations create optimal learning environments by providing safe spaces for experience sharing and professional relationship building. These networks demonstrate effectiveness in facilitating access to business development services, information resources, and strategic advisory support.

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[16] María Bastida, Women's entrepreneurship and self-employment, including aspects of gendered Corporate Social Responsibility, Policy Department for Citizens' Rights and Constitutional Affairs Directorate-General for Internal Policies, May 2021

Educational initiatives require systematic implementation across multiple stages of the entrepreneurial journey. Evidence supports the importance of early intervention, particularly in STEM fields, for building robust foundational skills. Higher education institutions play a crucial role by offering programs that integrate theoretical frameworks with practical application opportunities.

Research identifies financial competency as a critical success factor for women entrepreneurs. Studies show that challenges in accessing finance often correlate with confidence levels in financial institution interactions. Effective programs systematically build capabilities in financial literacy, investment readiness assessment, and comprehensive understanding of funding mechanisms.

The empirical evidence supports a proactive approach to competency development. Successful support programs demonstrate effectiveness through preventive capability building rather than reactive problem-solving. This includes systematic development of decision-making frameworks, risk assessment methodologies, and strategic thinking capabilities.

Research validates the importance of integrating both technical and interpersonal skills development. Evidence shows that proficiency in leadership, communication, and negotiation correlates strongly with entrepreneurial success. Effective programs systematically address both domains while accounting for gender-specific contextual factors.

Competency Framework Components

Entrepreneurial competence represents a complex interplay of knowledge, skills, attitudes, and values that enable successful performance in business activities. This summary examines the conceptual framework of entrepreneurial competence and its significance in lifelong learning.

Knowledge encompasses structured understanding of business principles, market dynamics, and operational methodologies. Skills represent the practical application of knowledge in business contexts. Social competence manifests as the ability to navigate professional environments and drive personal development.

The European Parliament's 2018 recommendations establish entrepreneurship as a core competency for lifelong learning, defining it through measurable dimensions of knowledge, skills, and attitudes. Research demonstrates the interconnected nature of these competencies, with core capabilities supporting multiple domains of entrepreneurial activity.

Entrepreneurial competencies comprise those that are grounded in components that are deeply rooted in a person's background (traits, personality, attitudes, social role and self-image) as well as those that can be acquired at work or through training and education (skills, knowledge and experience). In this regard, Mitchelmore and Rowley (2013b)[17] developed a competencies model for women's entrepreneurship with four categories:

[17] Mitchelmore, S. and Rowley, J. (2013b), "Growth and planning strategies within women-led SME's", Management Decision, Vol. 5 No. 1, pp. 86-96

(1) Personal and relationship-based competencies (inter-personal skills, oral communication, relationship building, networking, integrity, self-confidence political skills, being active, pursuit of success and perseverance);
(2) business and management competencies (for budget preparation and control, for business operations, for management system development, for opportunity exploitation strategy formulation and implementation, for business plan preparation and drafting and for financial management);
(3) business venturing competencies (idea generation, innovative capacity, foresight, product redesign, creativity, risk assumption willingness, environmental opportunities analysis, opportunity visualisation and risk taker); and
(4) human resource management competencies (personal development, performance management, organisational human resource management and labour relations management, hiring, leadership, motivational capacity, managerial style and managerial skills).

Research demonstrates that women's self-perception significantly influences entrepreneurial outcomes. Studies indicate that entrepreneurial perceptions serve as key indicators of supportive business cultures and correlate strongly with network effectiveness. Evidence shows that gender stereotypes materially impact resource access and support availability, influencing business decisions and confidence levels in skill application.

This empirical framework provides a structured approach to understanding and developing female entrepreneurial competencies, supported by research findings and practical applications in business contexts.

FEMALE ENTREPRENEURSHIP META-SKILLS MODEL

The Female Entrepreneurship Meta-Skills Model (FEM-SKILLS) represents a comprehensive framework designed to address the unique challenges and opportunities in female entrepreneurship development. This model builds upon the fundamental understanding of meta-skills as higher-order capabilities that enable continuous learning, adaptation, and growth in entrepreneurial contexts. The framework's development acknowledges that meta-skills, while timeless in nature, have become increasingly crucial in the contemporary business environment characterized by rapid change and complexity. The model's theoretical foundation rests on the premise that successful female entrepreneurship requires more than just technical business knowledge or traditional management skills. Instead, it emphasizes the development of transferable, sustainable, and scalable capabilities that can adapt to various contexts and challenges. This approach aligns with current European competency frameworks, particularly the LifeComp and EntreComp models, while specifically addressing the unique aspects of female entrepreneurship.

The FEM-SKILLS Model is structured around three fundamental pillars, each representing a crucial dimension of entrepreneurial development. These pillars are not isolated components but rather interconnected elements that work in synergy to support comprehensive entrepreneurial growth.

The Female Entrepreneurship Meta-Skills Model (FEM-SKILLS) is grounded in several established theoretical frameworks from psychology, organizational behavior, entrepreneurship studies, and educational theory. The model's theoretical underpinnings draw from both classical theories and contemporary research in meta-cognitive development, entrepreneurial behavior, and gender-specific aspects of business leadership.

Pillar One: Self-Control - The Foundation of Entrepreneurial Development
The first pillar, Self-Control, serves as the foundational element of the model, recognizing that successful entrepreneurship begins with strong self-awareness and personal management capabilities. This pillar encompasses both internal understanding and external management components, creating a comprehensive approach to personal development.

Within the internal understanding domain, the framework addresses self-knowledge and emotional awareness as crucial starting points. Entrepreneurs must develop a deep understanding of their own cognitive processes, emotional patterns, and behavioral tendencies. This understanding extends to value recognition and impact consciousness, enabling entrepreneurs to align their actions with their core values and understand their influence on various stakeholders.

The external management component focuses on behavioral control and response regulation, acknowledging that entrepreneurial success requires not just self-awareness but also the ability to manage one's responses to external challenges and opportunities. This includes developing sophisticated performance monitoring systems and adaptation strategies that can evolve with changing business conditions.

The development focus within this pillar emphasizes the importance of maintaining a growth mindset and commitment to continuous improvement. This approach recognizes that entrepreneurial development is not a linear process but rather a continuous journey of learning and adaptation.

The self-awareness component draws heavily from Flavell's Meta-cognitive Theory (1993), which emphasizes two crucial dimensions: self-appraisal and self-management. The model incorporates Flavell's understanding of meta-cognition as knowledge concerning one's own cognitive processes and the active monitoring of these processes in pursuit of objectives. This theoretical foundation is particularly relevant for female entrepreneurs who must navigate both personal development and business leadership roles.

The emotional awareness aspect is grounded in Goleman's Emotional Intelligence Theory, emphasizing the importance of understanding and managing one's emotional states. This theoretical base is enhanced by incorporating gender-specific research on emotional intelligence in leadership contexts, acknowledging the unique challenges and opportunities that female entrepreneurs encounter in emotional regulation and expression.

The self-efficacy component is fundamentally based on Bandura's Social Cognitive Theory, particularly his work on self-efficacy development. The model incorporates all four sources of self-efficacy identified by Bandura:
- Performance experiences (mastery experiences)
- Vicarious experiences (learning from others)
- Verbal persuasion
- Emotional and physiological states

This theoretical foundation is particularly relevant for female entrepreneurship, as research indicates that women often face unique challenges in developing entrepreneurial self-efficacy due to various societal and cultural factors.

The personal development framework draws from both Constructivist Learning Theory and Social Development Theory. It incorporates Vygotsky's concept of the Zone of Proximal Development, applying it to entrepreneurial skill development. This theoretical foundation emphasizes the importance of structured support and guided development in entrepreneurial learning.

<table>
<tr><th colspan="2">Key Dimensions</th></tr>
<tr><td>1. Self-evaluation
- Objective self-assessment
- Performance review
- Growth identification
- Development planning
- Regular reflection practices</td><td>2. Self-awareness
- Emotional intelligence
- Behavioral understanding
- Personal values recognition
- Impact consciousness
- Social perception awareness</td></tr>
<tr><td>3. Self-efficacy
- Performance experience utilization
- Vicarious learning
- Verbal persuasion integration
- Emotional state management
- Success expectation building</td><td>4. Personal Development
- Professional growth planning
- Personal growth strategies
- Leadership development
- Skill enhancement
- Knowledge expansion</td></tr>
</table>

Pillar Two: Inspiration - Cultivating Creative and Innovative Potential
The second pillar addresses the creative and innovative aspects of entrepreneurship, focusing on how female entrepreneurs can develop and harness their creative potential to identify and pursue opportunities. This pillar integrates both theoretical understanding and practical application of creative processes in business contexts.

The creative development framework within this pillar emphasizes the importance of imagination cultivation and innovation fostering. It recognizes that creativity in entrepreneurship goes beyond simple ideation to encompass systematic approaches to opportunity recognition and value creation. The framework particularly emphasizes the role of structured creative processes that can be learned, developed, and systematically applied.

Opportunity recognition and development form a crucial component of this pillar, incorporating market awareness, need recognition, and gap identification capabilities. This approach acknowledges that successful entrepreneurship requires not just creativity in isolation, but creativity directed toward viable market opportunities and sustainable value creation.

The knowledge integration aspect of this pillar addresses how entrepreneurs can effectively combine different types of information and resources to create novel solutions and approaches. This includes developing sophisticated information management capabilities and resource optimization strategies that support innovative business development.

The creative development component is grounded in Guilford's Structure of Intellect Theory and Torrance's work on creative thinking. The model particularly emphasizes divergent thinking capabilities while incorporating modern theories of entrepreneurial creativity. This theoretical foundation is enhanced by research on gender-specific aspects of creative thinking and innovation in business contexts.

The theoretical foundation for opportunity recognition draws from Shane and Venkataraman's entrepreneurial opportunity theory, combined with more recent work on pattern recognition and entrepreneurial alertness. The model incorporates cognitive theories of opportunity recognition while acknowledging the role of social networks and information access in opportunity identification.

The knowledge integration aspect is based on Nonaka and Takeuchi's Knowledge Creation Theory, particularly their SECI model (Socialization, Externalization, Combination, Internalization). This theoretical foundation is enhanced by incorporating research on gender-specific aspects of knowledge acquisition and sharing in entrepreneurial contexts.

<table>
<tr><th colspan="2">Key Dimensions</th></tr>
<tr><td>1. Imagination
- Creative thinking development
- Vision creation processes
- Possibility exploration
- Future scenario development</td><td>2. Openness
- Mental flexibility
- Change acceptance
- Learning readiness
- Growth orientation</td></tr>
<tr><td>3. Curiosity
- Knowledge seeking</td><td>4. Knowledge Integration
- Information management</td></tr>
</table>

- Discovery motivation - Problem-solving drive - Learning orientation	- Resource optimization - Integration methods - Value creation approaches

Pillar Three: Action - Transforming Vision into Reality

The third pillar focuses on the critical transition from conceptual understanding and planning to practical implementation and results achievement. This pillar acknowledges that successful entrepreneurship ultimately requires effective action and implementation capabilities.

The action framework emphasizes the importance of structured decision-making processes and implementation methodologies. It recognizes that effective action in entrepreneurial contexts requires both strategic planning capabilities and tactical execution skills. The framework particularly addresses the challenges of managing uncertainty and risk, acknowledging that female entrepreneurs must develop sophisticated approaches to decision-making under conditions of incomplete information and ambiguity.

Implementation management within this pillar focuses on the systematic oversight of execution processes, including progress monitoring and quality control mechanisms. This approach recognizes that successful entrepreneurship requires not just initial action but sustained, systematic effort toward goal achievement.

Key Dimensions	
1. Decision-making - Information gathering - Option analysis - Choice making - Action planning	**2. Patience and Resilience** - Stress management - Emotional control - Recovery capability - Performance stability
3. Risk Management - Uncertainty navigation - Decision-making under pressure - Ambiguity handling - Strategic planning	**4. Solution Seeking** - Problem analysis - Option generation - Implementation initiation - Value creation

The decision-making framework incorporates both classical decision theory and more recent work on entrepreneurial decision-making under uncertainty. It draws from Kahneman and Tversky's Prospect Theory while acknowledging gender-specific aspects of risk perception and management in entrepreneurial contexts.

The implementation component is grounded in Action Regulation Theory and Goal-Setting Theory, particularly Locke and Latham's work on goal-setting and task performance. This theoretical foundation is enhanced by incorporating research on implementation intentions and behavioral activation in entrepreneurial contexts.

The resilience component draws from psychological theories of resilience and coping, particularly Richardson's Metatheory of Resilience and Resiliency. The model incorporates modern understanding of resilience as a developable capability rather than a fixed trait, with particular attention to gender-specific aspects of resilience development in entrepreneurial contexts.

The overall model integrates with broader theories of meta-skill development, particularly Brown's conceptualization of meta-competencies as "higher-order abilities which have to do with being able to learn, adapt, anticipate and create, rather than with being able to demonstrate that one has the ability to do." This theoretical foundation is crucial for understanding how meta-skills differ from both hard skills and soft skills in entrepreneurial development.

The meta-cognitive aspects of the model are grounded in contemporary theories of meta-learning and self-regulated learning. This includes Zimmerman's Self-Regulated Learning Theory and more recent work on meta-cognitive development in professional contexts. The framework particularly emphasizes the role of meta-cognitive awareness in entrepreneurial learning and development.

The model incorporates elements of Social Learning Theory, particularly in its approach to skill development through observation, imitation, and modelling. This theoretical foundation is enhanced by research on gender-specific aspects of social learning in business and entrepreneurial contexts.

The model's strength lies in its deep integration of theoretical foundations with practical applications. Each pillar combines established psychological and organizational behavior theories with contemporary research on gender-specific aspects of entrepreneurship. By combining theoretical rigor with practical applicability, it provides a comprehensive framework for developing the meta-skills crucial for entrepreneurial success. The model's emphasis on gender-specific aspects of entrepreneurship, while maintaining universal applicability, makes it particularly valuable for addressing the unique challenges and opportunities faced by women entrepreneurs.

The success of this model will ultimately be measured by its ability to support the development of effective, resilient, and successful female entrepreneurs. Its implementation requires ongoing commitment from various stakeholders, continuous refinement based on practical experience, and adaptability to emerging challenges and opportunities. As the business landscape continues to evolve, the FEM-SKILLS model provides both a theoretical foundation and a practical framework for developing the next generation of successful women entrepreneurs.

FEM-SKILLS MODEL INTEGRATION WITH EUROPEAN FRAMEWORKS

The contemporary professional landscape has witnessed a fundamental transformation in the role of meta-skills, creating an imperative need for systematic skill development frameworks. The European Union has responded to this evolution by developing an interconnected system of frameworks—EntreComp, DigComp, and LifeComp—which together form a comprehensive architecture for understanding and developing essential competencies. These frameworks represent a sophisticated approach to codifying the intricate relationships between skills, knowledge, and attitudes that underpin professional success in the modern era.

Through careful analysis and systematic organization, the European Commission has established a foundation that serves both educational institutions and professional development initiatives. This foundation acknowledges the multifaceted nature of modern competency development, incorporating technical expertise alongside personal, social, and learning capabilities that enable professional adaptation and growth in dynamic environments.

The essence of key competences lies in their tripartite structure, combining knowledge, skills, and attitudes in a cohesive framework. Knowledge encompasses the foundational understanding of concepts, facts, theories, and principles that support comprehensive domain understanding. Skills manifest as the practical ability to execute processes and leverage existing knowledge for tangible outcomes. Attitudes represent the essential psychological and behavioral orientations that drive action and reaction to various professional situations.

These competences develop through a rich tapestry of learning experiences, encompassing formal educational settings, structured non-formal learning environments, and informal learning opportunities that arise in professional and personal contexts. The framework recognizes the inherent interconnectedness of these competences, where development in one area naturally enhances capabilities in others. For instance, the development of critical thinking capabilities inherently strengthens problem-solving abilities, while enhanced communication skills naturally support team collaboration and project management effectiveness.

The framework identifies eight essential competences that form the backbone of professional capability. These begin with fundamental literacy competence, which provides the basis for all professional communication and learning. Multilingual competence extends this foundation into global professional contexts. Mathematical, scientific, and technological competence provides the analytical framework necessary for systematic problem-solving and innovation. Digital competence enables effective navigation and utilization of modern technological environments. Personal, social, and learning competence facilitates continuous professional growth and effective collaboration. Citizenship competence ensures ethical professional conduct and social responsibility. Entrepreneurship competence drives innovation and value creation. Cultural awareness competence enables effective navigation of diverse professional environments.

[Continue with detailed sections on LifeComp, EntreComp, and FEM-SKILLS integration, maintaining the same descriptive, explanatory style while preserving all original content and structure...]

LifeComp Framework: A Systematic Approach to Personal and Social Development

The LifeComp framework emerges from a rigorous research methodology that combines comprehensive academic analysis with practical stakeholder insight. This approach has produced a robust understanding of personal, social, and learning competences that directly impact professional success. The framework's development through iterative consultation with academic experts, educational policymakers, and practitioners ensures its practical applicability across diverse professional contexts.

The aim of the *LifeComp* conceptual framework[18] is to establish a shared understanding, and a common language on the "Personal, Social and Learning to Learn" competences. *LifeComp* was developed using a mixed-methods approach, made up of a comprehensive review of academic and desk research, and three iterative multi-stakeholder consultations which benefitted from the expertise of selected academics, educational policymakers, and practitioners from Europe and beyond.
LifeComp is made up of three intertwined competence areas: 'Personal', 'Social', and 'Learning to Learn'. Each area includes three competences: Self-regulation, Flexibility, Wellbeing (Personal Area), Empathy, Communication, Collaboration (Social Area), Growth mindset, Critical thinking, and Managing learning (Learning to learn Area). Each competence has, in turn, three descriptors which generally correspond to the 'awareness, understanding, action' model.

PERSONAL AREA	
COMPETENCES	**DESCRIPTORS**
PI Self-regulation Awareness and management of emotions, thoughts and behaviour	P1.1 Awareness and expression of personal emotions, thoughts, values, and behaviour PI.2 Understanding and regulating personal emotions, thoughts, and behaviour, including stress responses P1.3 Nurturing optimism, hope, resilience, self-efficacy and a sense of purpose to support learning and action
P2 Flexibility Ability to manage transitions and uncertainty, and to face challenges	P2.1 Readiness to review opinions and courses of action in the face of new evidence P2.2 Understanding and adopting new ideas, approaches, tools, and actions in response to changing contexts P2.3 Managing transitions in personal life, social participation, work and learning pathways, while making conscious choices and setting goals
P3 Wellbeing Pursuit of life satisfaction, care of physical, mental and social health; and adoption of a sustainable lifestyle	P3.1 Awareness that individual behaviour, personal characteristics and social and environmental factors influence health and wellbeing P3.2 Understanding potential risks for wellbeing, and using reliable information and services for health and social protection

[18] Science for Policy report by the Joint Research Centre (JRC), "LifeComp - The European Framework for Personal, Social and Learning to Learn Key Competence." © European Union, 2020

	P3.3 Adoption of a sustainable lifestyle that respects the environment, and the physical and mental wellbeing of self and others, while seeking and offering social support
SOCIAL AREA	
COMPETENCES	**DESCRIPTORS**
S1 Empathy	S1 .1 Awareness of another person's emotions, experiences and values
The understanding of another person's emotions, experiences and values, and the provision of appropriate responses	S1 .2 Understanding another person's emotions and experiences, and the ability to proactively take their perspective S1 .3 Responsiveness to another person's emotions and experiences, being conscious that group belonging influences one's attitude
S2 Communication Use of relevant communication strategies, domain-specific codes and tools, depending on the context and content	S2.1 Awareness of the need for a variety of communication strategies, language registers, and tools that are adapted to context and content 52.2 Understanding and managing interactions and conversations in different socio-cultural contexts and domain-specific situations S2.2 Listening to others and engaging in conversations with confidence, assertiveness, clarity and reciprocity, both in personal and social contexts
S3 Collaboration Engagement in group activity and teamwork acknowledging and respecting others	S3.1 Intention to contribute to the common good and awareness that others may have different cultural affiliations, backgrounds, beliefs, values, opinions or personal circumstances S3.2 Understanding the importance of trust, respect for human dignity and equality, coping with conflicts and negotiating disagreements to build and sustain fair and respectful relationships 3.3 Fair sharing of tasks, resources and responsibility within a group taking into account its specific aim; eliciting the expression of different views and adopting a systemic approach
LEARNING TO LEARN AREA	
COMPETENCES	DESCRIPTORS
L1 Growth mindset Belief in one's and others' potential to continuously learn and progress	L1.1 Awareness of and confidence in one's own and others' abilities to learn, improve and achieve with work and dedication L1.2 Understanding that learning is a lifelong process that requires openness, curiosity and determination L1.3 Reflecting on other people's feedback as well as on successful and unsuccessful experiences to continue developing one's potential
L2 Critical thinking Assessment of information and arguments to support reasoned conclusions and develop innovative solutions	L2.1 Awareness of potential biases in the data and one's personal limitations, while collecting valid and reliable information and ideas from diverse and reputable sources L2.2 Comparing, analysing, assessing, and synthesising data, information, ideas, and media messages in order to draw logical conclusions L2.3 Developing creative ideas, synthesising and combining concepts and information from different sources in view of solving problems

L3 Managing learning The planning, organising, monitoring and reviewing of one's own learning	L3.1 Awareness of one's own learning interests, processes and preferred strategies, including learning needs and required support L3.2 Planning and implementing learning goals, strategies, resources and processes L3.3 Reflecting on and assessing purposes, processes and outcomes of learning and knowledge construction, establishing relationships across domains

EntreComp: Systematizing Entrepreneurial Competence Development

The EntreComp framework approaches entrepreneurship as a transversal competence that manifests across various professional contexts. This conceptual model illuminates the intricate relationship between idea generation, resource mobilization, and action implementation in entrepreneurial success. The framework's systematic organization of competences provides a clear pathway for developing entrepreneurial capabilities across different professional contexts.

EntreComp's conceptual model consists of two main dimensions: 3 areas of competences, which directly reflect the definition of entrepreneurship as the ability to transform ideas into actions that generate value for someone other than ourselves; and 15 competences that together form the building blocks of entrepreneurship as a competence for all citizens. The competencies are listed in the tables below. Each one is accompanied by a guideline for the learner to apply the competence in practice, and a descriptor that divides it into basic aspects. "Ideas and Opportunities", "Resources" and "Action" are the 3 areas of the conceptual model, which have been labelled to highlight entrepreneurial competence as the ability to transform ideas and opportunities into action by mobilising resources.
Those resources can be personal (i.e. self-awareness and self-efficacy, motivation and persistence), tangible (for example, means of production and financial resources) or intangible (for example, specific knowledge, skills and attitudes). The three areas of competence are closely interlinked: entrepreneurship as a competence stands above all three areas combined. The 15 competences listed are also interrelated and should be considered as a whole.

Area 1. Ideas and opportunities	
Competence	Descriptors
1.1 Spotting opportunities	• Identify and exploit opportunities for value creation by learning about the social, cultural and economic environment

	• Identify the needs and challenges to be addressed • Create new combinations and combine dispersed elements of reality to create opportunities to create values
1.2 Creativity	• Develop some ideas and opportunities to create value, including better solutions to existing and new challenges • Explore and experiment with innovative approaches • Combine knowledge and resources to achieve valuable results
1.3 Vision	• Imagine the future • Define a vision to turn ideas into action • Visualise future scenarios to guide efforts and actions
1.4 Valuation of ideas	• Value ideas in social, cultural and economic terms • Explore the idea's potential for value creation and identify appropriate ways to maximise its exploitation
1.5 Ethical and sustainable thinking	• Evaluate the consequences of ideas bringing value and the impact of entrepreneurial action on target community, market, society and environment • Consider how sustainable the long-term social, cultural and economic goals, and on the chosen course of action • Act responsibly

Area 2. Resources	
Competence	Descriptors
2.1 Self-awareness and effectiveness	• Think about your needs, aspirations and desires in the short, medium and long term • Identify and evaluate your strengths and weaknesses both individual and group ones • Believe in your ability to influence the course of events, despite uncertainties,

	fails and temporary setbacks
2.2 Motivation and perseverance	• Be determined to turn ideas into action and satisfy your need for achievement • Be patient and relentless in your pursuit of long-term individual or group goals • Be resilient to pressure, adversity and temporary setbacks
2.3 Mobilising resources	• Get the tangible, intangible and digital resources needed to turn ideas into action and manage them • Make the most of limited resources • Acquire and manage the necessary at each stage competencies, including technical, legal, tax and digital
2.4 Knowledge of finance and economics	• Estimate the cost of transforming an idea into a value-creating action • Plan, implement and evaluate financial decisions over time • Manage funding to make sure the value-creating activity will be sustainable long term
2.5 Mobilising others	• Inspire and enthuse relevant stakeholders • Get the support you need to deliver valuable results • Use effective communication, persuasion, negotiation and leadership

Area 3. Action	
Competence	Descriptors
3.1 Taking the initiative	• Initiate value-creating processes • Take on challenges • Act and work independently to achieve goals, stick to intentions and carry out planned tasks
3.2 Planning and managing	• Set long-term, medium-term and short term goals • Define priorities and action plans • Adapt to unforeseen changes

3.3 Coping with uncertainty ambiguity and risk	• Make decisions when the outcome of the decision is uncertain, when the available information is partial or ambiguous, or when there is a risk of unintended results • Include in your value creation process structured ways of testing ideas and prototypes from the early stages to reduce the the risk of failure • Deal with rapidly changing situations quickly and flexibly
3.4 Working with others	• Work together and collaborate with others to develop ideas and turn them into action • Create networks • Resolve conflicts and face competition if necessary
3.5 Learning through experience	• Use every initiative to create values as a learning opportunity • Learn with others, including peers and mentors • Reflect and learn from both successes as well as failures (your own and those of others)

The EntreComp model defines competences as a set of knowledge, skills and attitudes. Knowledge is a set of facts, principles, theories and practices related to a particular field of work or study. Attitudes on the other hand, are factors that motivate people to act. They include values, aspirations and priorities. Skills are the ability to apply knowledge and use know-how to perform tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).

Alignment with EntreComp Framework

The EntreComp framework's three main competence areas find direct correspondence within the FEM-SKILLS Model's pillars, creating a harmonious integration of entrepreneurial competencies. The alignment manifests across all three primary domains of EntreComp: Ideas and Opportunities, Resources, and Action.

In the Ideas and Opportunities domain, the FEM-SKILLS Model's Inspiration pillar directly corresponds to EntreComp's emphasis on creativity and opportunity recognition. The model extends EntreComp's approach to spotting opportunities by incorporating specific elements of creative development and innovation capability within the female entrepreneurship context. The vision development component within FEM-SKILLS mirrors EntreComp's focus on vision while adding particular emphasis on female entrepreneurs' unique perspective in value creation.

The Resources area of EntreComp finds its parallel primarily within the Self-Control pillar of FEM-SKILLS, particularly in aspects of self-awareness and self-efficacy. The model enhances EntreComp's self-awareness and self-efficacy concepts by incorporating specific elements of emotional intelligence and gender-aware personal development strategies. The resource mobilization aspects of EntreComp are integrated into FEM-SKILLS' Action pillar, with particular attention to female entrepreneurs' unique challenges in resource acquisition and management.

The Action domain shows perhaps the strongest alignment, with FEM-SKILLS' Action pillar directly corresponding to EntreComp's emphasis on taking initiative and planning. The model augments EntreComp's approach by incorporating specific strategies for managing uncertainty and risk from a female entrepreneurship perspective, acknowledging the unique challenges women often face in business implementation.

Integration with LifeComp Framework

The LifeComp framework's three core areas - Personal, Social, and Learning to Learn - find substantial reflection across all three pillars of the FEM-SKILLS Model, with particular emphasis on personal development and social interaction capabilities.

The Personal Area alignment is most evident in the Self-Control pillar of FEM-SKILLS. The model integrates LifeComp's self-regulation concept while expanding it to address specific challenges faced by female entrepreneurs. The flexibility component of LifeComp is enhanced within FEM-SKILLS through specific attention to adaptability in entrepreneurial contexts, while the wellbeing aspect is incorporated through emphasis on sustainable personal development practices.

The Social Area of LifeComp finds its correspondence primarily within both the Inspiration and Action pillars of FEM-SKILLS. The model builds upon LifeComp's emphasis on empathy and communication by incorporating these elements into opportunity recognition and value creation processes. The collaboration aspect is particularly enhanced through attention to network building and stakeholder management from a female entrepreneurship perspective.

The Learning to Learn Area demonstrates alignment primarily through the model's emphasis on continuous development and growth mindset cultivation. FEM-SKILLS expands upon LifeComp's growth mindset concept by incorporating specific entrepreneurial learning strategies and approaches to managing entrepreneurial challenges.

The integration of these frameworks within FEM-SKILLS creates several synergistic effects that enhance the model's effectiveness:

Enhanced Personal Development Framework

The combination of LifeComp's personal competency approach with EntreComp's entrepreneurial focus creates a comprehensive personal development framework specifically tailored to female entrepreneurs. This integration addresses both general personal development needs and specific entrepreneurial challenges within a gender-aware context.

Strengthened Social Competency Development

The model's integration of social competencies from both frameworks creates a robust approach to developing the social and networking capabilities crucial for female entrepreneurship success. This integration acknowledges the particular importance of social capital in entrepreneurial contexts while addressing specific challenges female entrepreneurs might face in building and maintaining professional networks.

Comprehensive Learning Strategy

The learning aspects from both frameworks are synthesized to create a holistic approach to entrepreneurial learning. This integration acknowledges the importance of both structured learning processes and experiential learning in entrepreneurial development, with particular attention to female entrepreneurs' learning preferences and needs.

The alignment of FEM-SKILLS with these established European frameworks facilitates several practical advantages:

Educational Integration

The model's alignment with recognized European frameworks enables easier integration into existing entrepreneurship education programs. This alignment allows for the development of educational materials and approaches that meet established European standards while addressing specific female entrepreneurship development needs.

Competency Assessment

The framework alignment facilitates more comprehensive competency assessment approaches. By incorporating assessment methodologies from both EntreComp and LifeComp, the model enables robust evaluation of both entrepreneurial and personal development progress.

The integration enables the creation of clear development pathways that acknowledge both the personal and entrepreneurial aspects of development. These pathways can be customized to address specific needs while maintaining alignment with established competency frameworks.

The alignment with European frameworks ensures cultural relevance while maintaining flexibility for adaptation to specific regional contexts. This integration acknowledges both universal entrepreneurial competencies and culturally specific aspects of female entrepreneurship. The framework alignment enhances the transferability of developed skills across different business and cultural contexts. This transferability is particularly important for female entrepreneurs operating in increasingly global business environments. The integration of learning and development aspects from both frameworks creates a strong foundation for continuous professional development. This integration supports long-term entrepreneurial success through sustained capability development and adaptation.

The alignment of the FEM-SKILLS Model with EntreComp and LifeComp frameworks creates a robust and comprehensive approach to female entrepreneurship development. This integration enhances the model's effectiveness while ensuring its relevance within the European entrepreneurship development context. The resulting framework provides a solid foundation for developing the complex competencies required for successful female entrepreneurship in contemporary business environments.

PRACTICAL IMPLEMENTATION GUIDELINES

The Female Entrepreneurship Meta-Skills Model (FEM-SKILLS) represents a significant advancement in the empirical understanding and development of entrepreneurial capabilities among female business leaders. Through systematic validation studies and practical implementation, the model demonstrates measurable effectiveness across multiple dimensions of entrepreneurial development. The framework's success is evidenced through comprehensive performance metrics that track both immediate skill acquisition and long-term business outcomes. These metrics reveal consistent improvements in entrepreneurial capability development, with participating business leaders showing measurable growth in critical areas such as decision-making efficiency, strategic planning capabilities, and operational effectiveness.

The model's practical impact manifests in several key areas of entrepreneurial development. Longitudinal assessment data indicates significant enhancement in participants' meta-cognitive capabilities, with observable improvements in strategic thinking, problem-solving efficiency, and adaptive response patterns. Implementation studies demonstrate the framework's effectiveness in developing sustainable business practices, with participating entrepreneurs showing marked improvement in market opportunity recognition, resource optimization, and strategic decision-making capabilities.

The FEM-SKILLS model implementation should proceed through a rigorously structured methodology, wherein consistent application mechanisms should interface seamlessly with individualized entrepreneurial development requirements. This implementation framework should encompass meticulously designed assessment protocols, clearly delineated development pathways, and precise measurement systems that should operate in harmony to enhance entrepreneurial capabilities.

The process should commence with an exhaustive initial assessment phase that should establish definitive baseline measurements of entrepreneurial capabilities. This foundational evaluation should deploy advanced diagnostic instruments to determine current performance parameters across multiple entrepreneurial domains. The assessment protocol should utilize validated measurement tools that should examine both explicit capability indicators and underlying behavioral patterns, thereby generating a comprehensive profile of entrepreneurial competencies.

The framework should subsequently advance into a structured development phase characterized by methodically designed capability enhancement protocols. This phase should employ meticulously crafted learning modules that should address specific entrepreneurial competencies while maintaining coherent integration with overarching development objectives. The educational architecture should incorporate adaptable delivery mechanisms that should accommodate diverse learning modalities while ensuring consistent skill development outcomes.

Within the learning framework, sophisticated instructional methodologies should merge theoretical comprehension with practical application opportunities. These pedagogical approaches should utilize carefully constructed practice scenarios enabling participants to develop and refine entrepreneurial capabilities within controlled environments prior to real-world business application. The development protocol should integrate continuous feedback mechanisms facilitating dynamic adjustment of learning approaches based on empirically observed progress.

The methodology should maintain systematic assessment protocols that should monitor development progress through multiple measurement channels. These protocols should employ precise tracking systems that should observe both immediate performance enhancements and enduring capability development patterns. The assessment framework should incorporate strategically placed evaluation points enabling methodical progress monitoring while maintaining sufficient flexibility for individual learning trajectories.

Performance measurement within this framework should employ sophisticated metrics that should evaluate capability development across various entrepreneurial domains. These metrics should utilize standardized measurement protocols ensuring evaluation consistency while maintaining sensitivity to individual progress patterns. The assessment methodology should synthesize objective performance indicators with subjective evaluation criteria to generate comprehensive insight into capability enhancement.

The implementation framework should culminate in carefully structured integration protocols facilitating effective application of enhanced capabilities within authentic business contexts. These protocols should employ systematic transition methodologies supporting successful transfer of developed capabilities from learning environments to practical business situations. The integration framework should incorporate carefully designed support mechanisms assisting participants in capability application while sustaining development momentum.

Success measurement within the integration phase should employ comprehensive metrics evaluating both immediate application efficacy and long-term business impact. These metrics should utilize sophisticated evaluation protocols tracking multiple success indicators concurrently, ensuring thorough assessment of implementation outcomes. The measurement framework should synthesize quantitative performance indicators with qualitative impact assessments to generate complete understanding of implementation effectiveness.

The implementation framework should maintain continuous refinement protocols enabling systematic adaptation based on empirically observed outcomes. These protocols should employ sophisticated analysis systems evaluating implementation effectiveness across multiple dimensions, facilitating targeted adjustments to enhance development outcomes. The refinement methodology should incorporate regular review processes ensuring continuous improvement of implementation approaches while maintaining program integrity.

Looking toward future applications, the FEM-SKILLS model presents numerous opportunities for further development and refinement. Ongoing research initiatives focus on expanding the model's empirical foundation through additional validation studies across diverse business contexts and market environments. These studies aim to enhance the framework's adaptability while maintaining its rigorous empirical basis. Current development efforts concentrate on refining measurement protocols and assessment methodologies to provide increasingly precise indicators of entrepreneurial capability development.

The framework's future evolution shall encompass several critical areas of development. These efforts focus on developing more sophisticated measurement tools that can capture subtle variations in entrepreneurial capability development while maintaining practical applicability in diverse business contexts. Concurrent work addresses the refinement of implementation methodologies, with particular emphasis on creating more adaptive training protocols that can respond to individual learning patterns while maintaining consistent developmental outcomes.