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Marijana Maksimović
Institute of Social Sciences
Center for Economic Research
Belgrade

Ivan Nikolić
Institute of Social Sciences
Center for Economic Research
Belgrade

Mirjana Dokmanović
Institute of Social Sciences
Center for Legal Research
Belgrade

WOMEN'S ENTREPRENEURSHIP IN THE CONTEXT OF THE DIGITAL ECOSYSTEM AND PUBLIC POLICIES

Žensko preduzetništvo u kontekstu digitalnog ekosistema i javnih politika

Abstract

This research investigates the impact of gender parity on entrepreneurial activity levels, exploring the interplay between the digital ecosystem, public policy, and the specific motivators and barriers faced by women entrepreneurs. We employ a mixed-methods design. A qualitative literature review establishes the global context of women's entrepreneurship. A quantitative linear regression analysis is conducted on data from 47 countries to model the relationship between the female-to-male early-stage entrepreneurial activity (TEA) ratio and the overall TEA rate, controlling for economic and educational variables. The regression analysis reveals that increased gender parity in entrepreneurship has a strong, statistically significant positive effect on a country's total entrepreneurial activity. Other factors, such as GDP per capita and unemployment rate, show a negative relationship with TEA. The review identifies key motivators (e.g., market opportunity, self-employment) and barriers (e.g., access to capital, cultural norms). The results provide a robust evidence base for policymakers. Recommendations include developing gender-sensitive policies, improving access to finance and digital training, and implementing measures to counteract cultural stereotypes and support work-life balance for women entrepreneurs. This paper provides a novel global empirical analysis of the gender gap's impact on entrepreneurship, directly linking quantitative findings with qualitative insights to generate actionable policy recommendations for fostering female entrepreneurship in the digital age.

Keywords: *Women's entrepreneurship; digital ecosystem; public policy, linear regression; Global Entrepreneurship Monitor (GEM)*

Sažetak

Ovo istraživanje istražuje uticaj rodne ravnopravnosti na nivo preduzetničke aktivnosti, istražujući međusobnu interakciju između digitalnog ekosistema, javne politike i specifičnih motivatora i prepreka sa kojima se suočavaju žene preduzetnice. Koristimo dizajn mešovitih metoda. Kvalitativni pregled literature uspostavlja globalni kontekst ženskog preduzetništva. Kvantitativna linearna regresiona analiza sprovedena je na podacima iz 47 zemalja kako bi se modelirao odnos između odnosa preduzetničke aktivnosti žena i muškaraca u ranoj fazi (TEA) i ukupne stope TEA, kontrolišući ekonomske i obrazovne varijable. Regresiona analiza otkriva da povećana rodna ravnopravnost u preduzetništvu ima snažan, statistički značajan pozitivan efekat na ukupnu preduzetničku aktivnost zemlje. Drugi faktori, kao što su BDP po glavi stanovnika i stopa nezaposlenosti, pokazuju negativnu vezu sa TEA. Pregled identifikuje ključne motivatore (npr. tržišne mogućnosti, samozapošljavanje) i prepreke (npr. pristup kapitalu, kulturne norme). Rezultati pružaju robusnu bazu dokaza za kreatore politike. Preporuke uključuju razvoj rodno osetljivih politika, poboljšanje pristupa finansiranju i digitalnoj obuci, kao i sprovođenje mera za suzbijanje kulturnih stereotipa i podršku ravnoteži između posla i privatnog života za žene preduzetnice. Ovaj rad pruža novu globalnu empirijsku analizu uticaja rodnog jaza na preduzetništvo, direktno povezujući kvantitativne nalaze sa kvalitativnim uvidima kako bi se generisale praktične preporuke za podsticanje ženskog preduzetništva u digitalnom dobu.

Ključne reči: *Žensko preduzetništvo; digitalni ekosistem; javna politika; linearna regresija; Globalni monitor preduzetništva (GEM)*

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Introduction

Entrepreneurship is widely recognized as a critical engine for economic growth, innovation, and job creation. Within this domain, female entrepreneurship has emerged as a significant force, playing a pivotal role in the development of national economies and serving as a positive response to pervasive gender discrimination in traditional labor markets. By engaging in entrepreneurial activities, particularly through small businesses, women not only enhance their own living standards and foster individual development but also contribute vitally to the social and economic fabric of their local communities.

Contemporary entrepreneurship is increasingly shaped by the digital ecosystem. A digital ecosystem is a combination of information technology (software, applications, files) and enterprise resources (customers, trading partners, suppliers, services) to influence changes in the market, regardless of the type of industry. Digital technologies have fundamentally altered how businesses are created and operated, revolutionizing processes from supply chain management to marketing and sales. Together with artificial intelligence (AI) they are influencing changes in the enterprise, and this is visible in many business unctions. „Economists and policymakers adopted Gen AI to model macroeconomic scenarios, simulate policy impacts, and analyze real time data. This enabled more responsive and evidence based decision-making. Enhanced forecasting tools predicted inflation, unemployment, and market trends with greater accuracy, informing central bank policies and fiscal interventions." [28, p. 99].

For women entrepreneurs, this digital shift presents unique opportunities to overcome traditional barriers, such as limited access to physical markets and networks. The digital landscape allows for greater flexibility, access to broader markets, and the mobilization of resources beyond local confines, thereby enabling a more inclusive entrepreneurial environment. However, this new paradigm also brings challenges, including regulatory ambiguities and the imperative to acquire digital skills, which female entrepreneurs must navigate.

Beyond the digital realm, the development of female entrepreneurship is profoundly influenced by public policy. International frameworks, such as the Beijing Declaration and Platform for Action, have established a global commitment to empowering women economically. Subsequent initiatives by bodies like the OECD and the European Union have provided guidelines for member states to create supportive environments through legislative measures, financial support, and educational programs. Effective public policies are essential to address structural barriers, combat gender stereotypes, and create a level playing field that allows female entrepreneurship to flourish.

Despite growing recognition, a critical gap remains in understanding the quantitative impact of reducing gender disparities on overall entrepreneurial activity levels. While motivators and barriers are often discussed qualitatively, there is a need for empirical analysis to isolate the effect of gender parity from other economic and social factors. This study aims to address this gap by investigating the interdependence between female and male early-stage entrepreneurial activity rates and the total entrepreneurial activity (TEA) across 47 countries. Utilizing linear regression analysis while controlling for variables such as GDP per capita, unemployment rate, and education levels, this research seeks to determine whether reducing gender gaps is a crucial lever for boosting national entrepreneurship rates.

Ultimately, this paper aims to delineate the context in which women's business is conducted, identify key motivators and barriers, and provide evidence-based recommendations for public policy. The findings are intended to contribute to the design of effective measures for fostering the further development of female entrepreneurship in the modern economy. The paper proceeds with a literature review, an analysis of motivators and barriers, a presentation of the methodological framework and regression results, and concludes with targeted policy implications.

Literature Review

The study of entrepreneurship's role in economic development has deep theoretical roots. Schumpeter [24]. established the entrepreneur as an innovator and agent of "creative destruction," while modern endogenous growth theories [8] and [1] posit entrepreneurship as a key internal mechanism for driving long-term growth. More recently, Mazzucato [17] reframed the role of the state as an entrepreneurial

actor that shapes and creates markets. While foundational, these theories often lack a gendered lens. The emergence of women's entrepreneurship as a distinct field of study necessitates an examination of how these dynamics apply specifically to women, accounting for the unique barriers and motivators they face.

A growing body of empirical evidence demonstrates the significant socio-economic contributions of female-led businesses. Research consistently shows that women entrepreneurs are pivotal in poverty reduction, job creation, and community development, particularly in developing economies [7] and [15]. Their income is often reinvested into human capital—health, nutrition, and education for their families—creating a positive multiplier effect [19]. Furthermore, female entrepreneurship promotes gender equality by providing economic independence and challenging traditional gender norms [3]. Despite these benefits, a persistent gender gap in entrepreneurship remains a global phenomenon, with women's businesses often being smaller, concentrated in less profitable sectors, and facing higher failure rates. By creating stronger bonds between women employers and staff, employee loyalty increases. Employee commitment has a significant impact on an organization. Committed employees are more inclined to innovate, take initiative, and contribute to organizational goals outside of their formal job duties. They actively participate in improving processes and organizational efficiency [2, p. 429].

The literature reveals a complex interplay of factors influencing women's entrepreneurial journeys [9].

a) *Motivators* often include a combination of *push factors* (e.g., economic necessity, unemployment, dissatisfaction with current employment, life transitions like divorce) and *pull factors* (e.g., desire for independence, self-fulfillment, work-life balance, and exploiting a market opportunity) [6] and [22].
b) *Barriers* are multifaceted and can be categorized as:
   - *Structural:* Limited access to finance, property, and technology [18] and [27].
   - *Cultural:* Deep-seated gender stereotypes, cultural norms dictating women›s roles, and a lack of legitimacy [12] and [14].
   - *Individual:* Fear of failure, lower risk tolerance, and a lack of specific business skills and networks [20] and [31]. The "5M framework" (market, money, management, motherhood, meso/macro environment) effectively captures this ecosystem of influences [10].

The digital transformation has created a new context for entrepreneurship [4] and [26] and [5]. Digital technologies can lower entry barriers, facilitate access to global markets, and enable flexible work arrangements, offering significant potential for women entrepreneurs [32] and [25]. Digital technologies and artificial intelligence in female entrepreneurship can contribute to improving competitiveness, increasing productivity through business processes. "Among them are (i) automation (reducing the time and costs for content creation), (ii) personalization, which allows for the adaptation of products and services to the customer, which increases their loyalty and satisfaction, and (iii) encouraging innovation because it facilitates the development of new innovative and unique products." [23, p. 118]. „However, even though technology-intensive industries should be a major part of the new industrial structure, traditional industries (textiles, leather and footwear, and the furniture industry) should not be their further development should continue only with the application of digital technologies." [16, p. 184-185]. However, a "digital gender divide" persists. Women often have less access to technology, digital skills, and venture capital focused on tech startups, risking the replication of old inequalities in new digital spaces [30] and [9]. The digital ecosystem, therefore, presents both a transformative opportunity and a new set of challenges that require specific policy attention. AI stands out as one of the most powerful technologies within ICT. When combined with breakthroughs from physical, cyber and biological world, AI has the potential to mitigate a variety of structural imbalances from the past and facilitate new industrial development, all in line with planetary boundaries. It could be a technological prerequisite for a sustainable economy and society in the future." [11, p. 5]. The digital ecosystem and AI influence the increased development and application of innovations. „In short, innovation always means the direct or indirect application

of inventions (i.e. inventions, new ideas, innovations, etc.) to new products, technology, processes, organization, but also a new way of management, communication or decision-making. Application is a key word here, which means confirmation of invention/ innovation on the market (through commercialization) or confirmation/ acceptance in society." [29, p. 162].

International bodies and national governments have recognized the need to actively support women's entrepreneurship through policy. Frameworks like the Beijing Platform for Action and OECD recommendations have pushed for measures improving access to finance, education, and childcare [21]. The European Union has been a particularly active actor, embedding support for female entrepreneurship into key strategies like the Small Business Act and the Gender Equality Strategy 2020-2025. Effective policies are those that are gender-sensitive and address the specific barriers identified above, rather than applying a one-size-fits-all approach.

While the existing literature provides rich qualitative insights into the motivators, barriers, and socio-economic impact of women's entrepreneurship across various national contexts, a critical gap remains. There is a scarcity of *cross-country quantitative studies that empirically measure the impact of reducing the gender gap on a nation's overall level of entrepreneurial activity.* Most studies focus on the drivers of female entrepreneurship itself, not on its macroeconomic effect. This study aims to fill this gap by utilizing regression analysis on a sample of 47 countries to determine whether increased gender parity in early-stage entrepreneurial activity acts as a significant catalyst for boosting the total entrepreneurial activity (TEA) rate, after controlling for key economic and social variables.

Material and Methodology

This study employs a mixed-methods approach, combining a comprehensive review of the literature on women's entrepreneurship with a quantitative cross-country regression analysis. The primary objective of the quantitative analysis is to empirically examine the relationship between gender parity in entrepreneurship and the overall level of early-stage entrepreneurial activity across nations.

The analysis utilizes data from 47 countries worldwide[2]. Data were sourced from the following international institutions:

- *Global Entrepreneurship Monitor (GEM)* for 2024: Provided data on Early-Stage Entrepreneurial Activity (TEA) rates and the Female-to-Male TEA ratio.
- *International Education Database (UN):* Provided the Education Rank for 2024.
- *UNESCO Institute for Statistics:* Provided the Adult Literacy Rate (latest available data between 2017-2023, depending on the country).
- *IMF World Economic Outlook (WEO, October 2024):* Provided data on GDP per capita (PPP) and the Unemployment Rate.

To examine the determinants of entrepreneurial activity, we estimate the following linear regression model using Ordinary Least Squares (OLS) with robust standard errors:

$$\begin{aligned} TEA\_Rate = {} & \beta_0 + \beta_1(F/M\_TEA\_Ratio) \\ & + \beta_2(Education\_rank) + \beta_3(Literacy\_rate) \\ & + \beta_4(GDPpc) + \beta_5(Unempl) + \varepsilon \end{aligned}$$

Where:

- TEA_Rate (Dependent Variable): The percentage of the population aged 18-64 who are either nascent entrepreneurs or owner-managers of a new business.
- F/M_TEA_Ratio: The ratio of the female TEA rate to the male TEA rate. A value of 1 indicates perfect parity.
- Education_rank: A measure ranking each country's education system's impact on its economic and social environment (a higher rank denotes a worse system).
- Literacy_rate: The percentage of the population aged 15 and above who can read and write.
- GDPpc: Gross Domestic Product per capita at purchasing power parity (in international dollars).
- Unempl: The national unemployment rate (%).
- ε: Error term (Table 1).

2 Full list of countries covered by the research: Austria, Brazil, Canada, Chile, China, Colombia, Croatia, Cyprus, Egypt, France, Germany, Greece, Guatemala, Hungary, India, Iran, Israel, Japan, Latvia, Lithuania, Luxembourg, Mexico, Morocco, Netherlands, Norway, Oman, Panama, Puerto Rico, Qatar, Romania, Saudi Arabia, Serbia, Slovakia, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Togo, Tunisia, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela

Table 1. Overview of variables used in the model

Variable	Description	Year	Source
TEA_Rate	Percentage of 18-64 population who are either a nascent entrepreneur or owner-manager of a new business	2024	Global Entrepreneurship Monitor (GEM)
F/M_TEA_Ratio	Percentage of female 18-64 population who are either a nascent entrepreneur or owner-manager of a 'new business', divided by the equivalent percentage for their male counterparts	2024	Global Entrepreneurship Monitor (GEM)
Education_rank	Measure and rank the impact of each nation's education system on its economic and social environment	2024	International Education Database UN
Literacy_rate	Adult literacy rate is the percentage of people ages 15 and above who can both read and write with understanding a short simple statement about their everyday life	2017 - 2023 depending on the country	UNESCO Institute for Statistics
GDPpc	A country's gross domestic product (GDP) at purchasing power parity (PPP); international dollars per capita	2024	WEO IMF (October 2024)
UnempI	The unemployment rate is the percentage of the labor force that is looking for a job	2024	WEO IMF (October 2024)

Source: author's calculations

This model allows us to isolate the effect of gender parity (F/M_TEA_Ratio) on the overall entrepreneurship rate while controlling for other critical economic and social factors.

Prior to interpreting the results, standard diagnostic tests were conducted. A plot of residuals versus fitted values confirmed that the assumptions of linearity and homoscedasticity were reasonably met. The Variance Inflation Factor (VIF) for all independent variables was below 2 (mean VIF = 1.42), well under the common threshold of 5, indicating that multicollinearity is not a concern for the stability of the coefficient estimates (Table 2).

The absence of multicollinearity pitfalls means that coefficient estimates are reliable and interpretable and standard errors are not inflated by redundant predictors. This strengthens the validity of our policy conclusions (e.g., gender parity's strong positive effect on TEA rates).

Pearson's correlations provide even more convincing confirmation of the previous position (table x). All correlations are below |0,7|, the threshold for serious collinearity concerns (Table 3).

In terms of linearity and homoskedasticity it was initially checked whether each predictor has a linear relationship with the dependent variable (see Figure 1). Residuals seem fairly symmetrically distributed around zero and no dramatic outliers or isolated points.

Results and Discussion

The regression model results are presented in Table 4. The model is statistically significant (F-statistic = 7.75, p <

Table 2. Variance Inflation Factor

Variable	VIF	1/VIF
Literacy_rate	1,47	0,57630
GDPpc	1,68	0,59594
Education_rank	1,40	0,71443
Unempl	1,49	0,84307
F/M_TEA_Ratio	1,10	0,90648
Mean VIF	1,42	

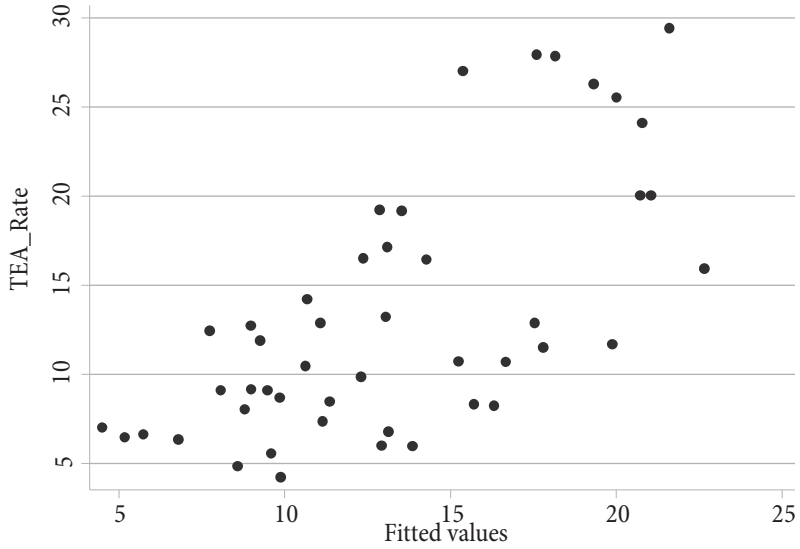
Source: ibidem

Table 3. A Pearson's correlation matrix

	F/M_TEA_Ratio	Education_rank	Literacy_rate	GDPpc	Unempl
F/M_TEA_Ratio	1,0000				
Education_rank	0,2453	1,0000			
	0,0965				
Literacy_rate	-0,2787	-0,4896*	1,0000		
	0,0578	0,0005			
GDPpc	-0,174	-0,3958*	0,5651*	1,0000	
	0,2422	0,0059	0,0000		
Unempl	0,058	0,2412	-0,1805	-0,3746*	1,0000
	0,6988	0,1025	0,2248	0,0095	

Source: ibidem

Figure 1. Residuals vs. fitted values



Source: ibidem

0.001) and explains approximately 45.4% of the variation in TEA rates across the 47 countries ($R^2 = 0.454$).

Interpretation of Key Findings

The interpretation of the key findings is:

a) *Gender Parity (F/M_TEA_Ratio):* The coefficient is positive and highly statistically significant (p=0.004). A one-unit increase in the female-to-male TEA ratio (e.g., moving from 0.5 to 1.5) is associated with a *16.43 percentage point increase* in the overall national TEA rate. This is the strongest positive predictor in the model, underscoring that closing the gender gap in entrepreneurship is not merely an issue of equality but a crucial strategy for boosting a country›s total entrepreneurial dynamism.

b) *Education Rank:* The positive coefficient (0.065, p=0.004) suggests that countries with *lower-ranked* (i.e., poorer) education systems have higher TEA rates. This counterintuitive finding can be explained by the concept of "*necessity-driven entrepreneurship.*" In economies with fewer formal job opportunities, individuals may turn to self-employment out of necessity rather than choice, leading to a higher number of early-stage ventures, often in the informal sector.

c) *Economic Factors (GDPpc and Unemployment):* Both coefficients are negative and significant.

- *GDPpc:* Higher economic development is associated with lower TEA rates. This aligns with the above, as wealthier economies offer more stable formal employment, reducing the push into necessity entrepreneurship.

Table 4. Summary of the linear regression model results

				Number of obs	=	47
				F (5, 41)	=	7,75
				Prob > F	=	0,0000
				R-sqiuared	=	0,4536
				Root MSE	=	5,5469
TEA_Rate	**Coef.**	**Robust Std. Err.**	**t**	**P>|t|**		**[95% Conf. Interval]**
F/M_TEA_Ratio	16,4317	5,3097	3,09	0,004	5,7086	27,1549
Education_rank	0,0649	0,0212	3,06	0,004	0,0221	0,1077
Literacy_rate	0,2736	0,1312	2,09	0,043	0,0086	0,5387
GDPpc	-0,0001	0,0000	-2,32	0,026	-0,0001	0,0000
Unempl	-0,3595	0,1509	-2,38	0,022	-0,6643	-0,0546
_cons	-22,4818	13,0589	-1,72	0,093	-48,8549	3,8913

Source: ibidem

- *Unemployment:* Contrary to the common "necessity entrepreneurship" hypothesis, higher unemployment is associated with *lower* TEA rates. This may be because unemployment erodes the capital and consumer demand necessary to start new ventures, or because much of the resulting entrepreneurial activity is informal and not captured in the TEA metric.

d) *Literacy Rate:* As expected, a higher literacy rate has a positive and significant effect on entrepreneurship (0.27, p=0.043), as basic literacy is a foundational skill for managing a business.

The core result—that gender parity significantly boosts entrepreneurial activity—provides strong quantitative support for the qualitative findings from the literature review. The barriers faced by women (e.g., lack of access to finance, networks, and cultural biases) represent not just individual hurdles but a systemic inefficiency that suppresses a country's overall economic potential. Policies that successfully lower these barriers for women can unlock a substantial reservoir of entrepreneurial talent.

The negative relationship between economic development (GDP) and TEA rates suggests that the *quality* and *ambition* of ventures may be more important than the sheer *quantity* in developed economies. This highlights a potential area for future research: differentiating between necessity-driven and opportunity-driven entrepreneurship in the context of the gender gap.

Recommendations for Public Policies to Enhance Women's Entrepreneurship

The findings of this study, both from the literature review and the empirical analysis, demonstrate that supporting female entrepreneurship is not merely a social objective but an economic imperative. Our regression analysis confirms that reducing the gender gap in entrepreneurship is a significant predictor of higher overall entrepreneurial activity. Therefore, public policies must be holistic, gender-sensitive, and designed to address the specific barriers identified while amplifying the key motivators. The following recommendations are proposed for policymakers, with specific relevance to contexts like the Republic of Serbia.

a) Enhancing Access to Finance and Capital

Barriers Addressed: Lack of collateral, discriminatory lending practices, limited access to formal credit. Finding: Economic factors (GDPpc, Unempl) are significant determinants of TEA.

- *Establish Targeted Financing Schemes*: Create publicly guaranteed loan funds, micro-finance initiatives, and venture capital funds with mandated quotas for women-led businesses, particularly in rural and remote areas.
- *Provide Financial Incentives:* Offer interest rate subsidies, grants for business plan development, and tax deductions or «grace periods» for startups in their first two years of operation, especially for those in the digital sector with irregular incomes.
- *Support Creditworthiness:* Develop alternative credit-scoring models that consider the specific nature of women›s businesses and assets, moving beyond traditional collateral requirements.

b) Building Human Capital and Digital Skills

Barriers Addressed: Lack of business management knowledge, technical skills, and digital literacy. Findings: The positive role of basic literacy; the need for practical skills beyond formal education rank.

- *Integrate Entrepreneurship into Education:* Develop and implement gender-sensitive entrepreneurship curricula from secondary education onwards, highlighting female role models.
- *Offer Specialized Training Programs:* Provide widespread, subsidized, or free training in digital literacy, e-commerce, online marketing, financial management, and sector-specific technical skills tailored for unemployed women and aspiring female entrepreneurs.
- *Promote Mentorship and Networking:* Fund and support mentorship programs that connect established business leaders with aspiring women entrepreneurs. Facilitate the creation of formal and informal networks for women to share knowledge, access new markets, and find potential partners.

c) Creating a Supportive Institutional and Legal Framework

Barriers Addressed: Bureaucratic hurdles, lack of social protection, discriminatory laws and cultural norms.

Finding: The overarching need to improve the "meso/ macro environment" (5M framework).

- *Simplify Business Registration:* Reduce the cost and complexity of business registration, licensing, and permitting, potentially through dedicated «one-stop-shops» for women entrepreneurs.
- *Ensure Social Protection:* Harmonize the social rights of self-employed women and female digital platform workers with those of employees, including rights to maternity leave, parental leave, and pension contributions.
- *Enforce Anti-Discrimination Laws:* Strengthen legal frameworks and enforcement mechanisms to combat gender-based discrimination in access to finance, property, and public procurement.

d) Reconciling Work and Family Life
Barriers Addressed: The "double burden," lack of time, and cultural expectations of women as primary caregivers.

- *Invest in Affordable Childcare:* Provide direct budgetary support, subsidies, or tax incentives to employers and local communities to expand affordable, high-quality childcare and elderly care services. This is one of the most direct ways to free up women›s time for entrepreneurial activity.
- *Promote Flexible Work Models:* Incentivize the adoption of flexible working hours, remote work, and telecommuting within both the public and private sectors, making it easier for women to manage business and family responsibilities.

e) Leveraging the Digital Ecosystem
Barriers Addressed: Limited access to markets and information, geographical isolation.
Finding: The digital ecosystem as a key transformative paradigm.

- *Bridge the Digital Divide:* Implement policies to ensure affordable and reliable internet access, particularly in rural and underserved areas.
- *Support Digital Adoption:* Provide grants, technical assistance, and training specifically for the adoption of digital tools, e-commerce platforms, and data analytics for women-led SMEs.
- *Formulate Digital-Specific Policies:* Develop clear regulations and support measures adapted to the specifics of digital entrepreneurship, including data protection, cross-border e-commerce, and intellectual property rights.

f) Fostering a Cultural Shift and Changing Perceptions
Barriers Addressed: Gender stereotypes, lack of visibility, and "lower credibility."

- *Awareness and Media Campaigns*: Launch public campaigns to challenge gender stereotypes, promote successful female entrepreneurs as role models, and change the perception of women in leadership and ownership roles, particularly in male-dominated sectors like STEM and digital tech.
- *Awards and Recognition:* Establish national and local awards for women-led businesses to increase their visibility and legitimacy.

g) Improving Data and Monitoring
Finding: Lack of systematic gender-disaggregated data.

- *Mandate Gender-Disaggregated Data Collection:* National statistical offices and financial institutions should systematically collect, analyze, and publish data on entrepreneurship disaggregated by sex. This includes data on business registries, loan applications, grant beneficiaries, and participation in support programs.
- *Implement Gender-Responsive Budgeting:* Apply gender-impact assessments to all relevant economic policies and public budgets to ensure resources are allocated effectively to support gender equality goals.

Effective policy requires a coordinated, multi-sectoral approach. By implementing these evidence-based recommendations, governments can create an ecosystem where women's entrepreneurship can thrive, thereby unlocking significant economic and social benefits for the entire nation.

Conclusion

This study set out to investigate the dynamics of women's entrepreneurship within the intertwined contexts of the digital ecosystem and public policy. By employing a mixed-methods approach—combining a global literature review with a novel cross-country regression analysis—

we have provided empirical evidence that *reducing the gender gap in entrepreneurship is not only a matter of equity but a significant catalyst for boosting a nation's overall entrepreneurial activity.*

The core finding of our regression analysis is unequivocal: the female-to-male entrepreneurship ratio is the strongest positive predictor of a country's Total Early-stage Entrepreneurial Activity (TEA) rate. This quantifies the immense economic potential that remains untapped due to persistent barriers faced by women. Our review of the literature contextualizes this result, identifying a universal set of motivators—such as the desire for independence, economic necessity, and self-fulfillment—and barriers—including limited access to finance, cultural stereotypes, and the double burden of work and family responsibilities.

The digital ecosystem presents a dual-faced reality: it offers unprecedented tools to overcome traditional barriers of access and geography, yet it also demands new skills and poses new regulatory challenges. For example, in the Republic of Serbia, great attention is paid to female entrepreneurship and employment in the ICT sector. Thus "...expansive growth of employment was recorded in the activity Computer programming, consultancy and related activities, where highly qualified labor force with well paid jobs is employed." [13, p. 251]. Meanwhile, public policies remain a fundamental lever for change, though they are often fragmented and insufficiently gender-sensitive.

The primary contribution of this research is the empirical demonstration of the gender gap's macroeconomic impact on entrepreneurship. Furthermore, it synthesizes scattered qualitative evidence into a coherent framework of motivators and barriers, directly linking them to actionable, evidence-based policy recommendations. These recommendations, ranging from enhancing financial access and childcare infrastructure to fostering digital skills and cultural change, provide a roadmap for governments to systematically dismantle obstacles and create a truly inclusive entrepreneurial landscape.

This study is not without limitations. The cross-sectional nature of the data provides a snapshot in time, and longitudinal studies could better capture the evolution of these relationships. The TEA metric, while valuable, may not fully capture the quality, growth potential, or informal nature of many ventures started by women.

Future research should build on this foundation by:

- *Differentiating between necessity and opportunity-driven entrepreneurship* in gender-based analyses.
- *Investigating the qualitative impact* of digital tools on the growth and sustainability of women-led businesses.
- *Conducting deeper case studies* on the role of cultural and historical variables in shaping entrepreneurial outcomes for women.
- *Exploring the effectiveness of specific policy interventions* through rigorous impact evaluations.

In conclusion, the journey toward thriving female entrepreneurship requires a concerted effort. It necessitates moving beyond symbolic support to the implementation of robust, gender-sensitive policies that address the root causes of inequality. By doing so, nations can unlock a powerful driver of innovation, economic growth, and social development, ensuring that the digital economy of the future is built by and for all.

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Marijana Maksimović

is employed at the Institute of Social Sciences at the Center for Economic Research. He holds the position of senior scientific associate. She received her doctorate in 2003 at the Faculty of Economics in Belgrade. She received her doctorate in 2003 at the Faculty of Economics, University of Belgrade. During 2019/2020, she completed postdoctoral international research studies in the field of economic diplomacy at the University for Peace, founded by the United Nations at the European Center for Peace and Development. Dr. Maksimović passed the state exam for work in the state administration of the Republic of Serbia in 1998. She worked as a researcher on scientific projects of national importance. She worked at the Republic Institute for Development and the Institute of Economic Sciences. She worked as a researcher on scientific projects of national importance funded by the Ministry of Science, Technological Development and Innovation. She worked as a lecturer at the Faculty of Medicine in Belgrade and the Belgrade Banking Academy. She has published three scientific monographs. She is a member of the Scientific Society of Economists of Serbia and the Society of Economists of Belgrade. She is a permanent member of the council of the journal Politička revija.

Ivan Nikolić

is employed at the Institute of Social Sciences in Belgrade. In the position of scientific advisor. He is the director of the Center for Economic Research. He is the President of the Council of Governors of the National Bank of Serbia. He received his doctorate at the Faculty of Economics in Belgrade in 2014. He worked at the Institute Of Economic Sciences And The Economic Institute. He is the editor of the newsletter "Macroeconomic Analysis and Trends and Conjunctural Barometer - MAT". He taught at the Faculty of Banking, Insurance and Finance on the subject of Public Finance, as well as at the Belgrade Open School. From the 2022/2023 school year. He was engaged as a lecturer on the Basics of Constitutional, Political and Economic Organization of the Republic of Serbia course at the Diplomatic Academy of the Ministry of Foreign Affairs of the Republic of Serbia. During his work in scientific research, he gained rich experience in defining and managing projects. He manages the World Bank's SAIGE project. From 2021, as a representative of the Republic of Serbia, he participates in the work of the Committee for the management of COST action CA20112 - Platform of policy Evaluation community for improved EU policies and Better Acknowledgement.

Mirjana Dokmanović

is a retired research associate at the Institute of Social Sciences. She is a member of the Board of Directors of the Victimology Society of Serbia, a member of the Technology and Society Association and a member of the International Association of Feminist Economics. She received her PhD in economics. She participated in the MA program Women and Public Policy Program, J.F. Kennedy School of Government, Harvard University, USA (1998, 1999, 2001), the UN Commission on the Status of Women, ECOSOC, the UN conference on the consequences of the world financial crisis, on combating the illegal arms trade, and in the work of European and world social forums of the alter-globalist movement. As an international expert, she has been engaged in expert work related to human rights issues, gender analysis of public policies and the improvement of anti-discrimination policies by international and European organizations (UNDP, UNIFEM, UNPFA, SEESAC, etc.). In the IPA 2011 project "Implementation of Anti-Discrimination Policies" (2012-2014), she was engaged as the main anti-discrimination expert. For government bodies, she worked on the development of the Gender Equality Strategy 2016-2020, as well as on studies and analyses of public policies. For the EU Delegation to Serbia in 2016, she prepared the study Gender Analysis of Serbia. She coordinated numerous European, national and local projects in the field of improving gender equality and combating gender-based violence. participated in a scientific research project funded by the Ministry of Education and Science of the Republic of Serbia. She was employed as an associate professor at the Faculty of European Legal and Political Studies of the EDUKONS University in Novi Sad. She is a member of the Council and Editorial Board of the journal "Temida".