

Mirjana Dejanović
Institute Mihajlo Pupin
Science and Technology Policy Research
Centre

Ana Kovačević
Institute Mihajlo Pupin
Science and Technology Policy Research
Centre

COMPARATIVE ANALYSIS OF THE IMPACT OF COVID-19, THE ENERGY AND ECONOMIC CRISIS ON FEMALE ENTREPRENEURSHIP IN SELECTED COUNTRIES

Uporedna analiza uticaja COVID-19, energetske i ekonomske krize na žensko preduzetništvo u odabranim zemljama

Abstract

This article explores the impact of the COVID-19, energy and economic crises on entrepreneurial activities, with a specific focus on the experiences of female entrepreneurs. It explores the experiences of female entrepreneurs with establishment, closure, and challenges of running a business during the COVID-19 pandemic, with special attention on the impact of energy and economic crises on their ventures. While energy crises can increase business costs, they also provide opportunities for various innovations, especially in alternative energy solutions. Economic crises drive individuals toward entrepreneurship as a means of income generation, requiring them to identify new opportunities and adapt to dynamic market conditions. Reduced competition and efficiency improvements can benefit resilient businesses. The EU has implemented measures to promote entrepreneurship, such as improving access to finance and supporting research and innovations but still missing greater support for female entrepreneurship. Gender inequality is still emphasized. Women entrepreneurs have been more affected by the pandemic due to their multiple responsibilities in the family and as business owners. The unequal distribution of workload, with women shouldering more household and childcare responsibilities, limits their ability to focus on their businesses. Consequently, women face disadvantages in thriving as entrepreneurs. Research conducted in Slovakia, Finland, Hungary, Spain, Romania, Serbia, and Bulgaria provides insights into this issue. Studies in these countries represent diverse regions and examine the European Union's measures and initiatives for promoting entrepreneurship within the EU and neighboring countries. Addressing these challenges and creating a more equitable environment is essential for the success of women entrepreneurs.

Keywords: COVID-19, female entrepreneurship, energy crisis, economic crisis, innovation, energy efficiency, resilience

Sažetak

Ovaj članak istražuje uticaj COVID-19, energetske i ekonomske krize na preduzetničke aktivnosti, sa posebnim fokusom na iskustva žena preduzetnica. Istražuje iskustva žena preduzetnica sa osnivanjem, zatvaranjem i izazovima vođenja preduzeća tokom pandemije COVID-19, sa posebnom pažnjom na uticaj energetske i ekonomske krize na njihove poslovne poduhvate. Dok energetska kriza može povećati troškove poslovanja, ona takođe pruža mogućnost za razne vrste inovacija, posebno u vidu alternativnih energetskih rešenja. Ekonomska kriza takođe usmerava pojedince ka preduzetništvu kao obliku poslovanja u cilju stvaranja prihoda, zahtevajući od preduzetnika da identifikuju nove mogućnosti i prilagode se dinamičnim tržišnim uslovima poslovanja. Manjak konkurentnih preduzeća u uslovima krize i poboljšanje efikasnosti mogu se iskoristiti za stvaranje novih poslovnih prilika i povećanje otpornosti preduzeća. EU je sproveda mere za promovisanje preduzetništva, kao što su poboljšanje pristupa finansijama, podrška istraživanju i inovacijama, ali još uvek nedostaje veća podrška ženskom preduzetništvu. I dalje je naglašena rodna neravnopravnost. Žene preduzetnice su više pogođene pandemijom zbog višestrukih obaveza u porodici i kao vlasnice preduzeća. Nejednaka distribucija opterećenja, sa ženama koje preuzimaju više obaveza u domaćinstvu i brizi o deci, ograničava njihovu sposobnost da se fokusiraju na svoj posao. Shodno tome, žene se suočavaju sa nedostacima u napredovanju kao preduzetnici. Istraživanja sprovedena u Slovačkoj, Finskoj, Mađarskoj, Španiji, Rumuniji, Srbiji i Bugarskoj pružaju uvid u ovo pitanje. Studije u ovim zemljama predstavljaju različite regione i ispituju mere i inicijative Evropske unije za promovisanje preduzetništva unutar EU i susednih zemalja. Rešavanje ovih izazova i stvaranje pravednijeg okruženja od suštinskog je značaja za uspeh žena preduzetnica.

Ključne reči: COVID-19, žensko preduzetništvo, energetska kriza, ekonomska kriza, inovacije, energetska efikasnost, otpornost

Introduction

The COVID-19 pandemic has had a significant and long-term impact on businesses globally. This paper aims to explore the repercussions of the COVID-19 crisis and the energy and economic crisis, especially on female entrepreneurship. This study presented the results of research in Slovakia, Romania, Hungary, Spain, Serbia, Bulgaria and Finland. Research specifically examines women's entrepreneurship and their experiences with opening and closing companies and the challenges they face during periods of lockdown. It was not possible to measure the impact of COVID-19, energy, and economic crises in the observed countries in the same way, due to the different methodologies and economic policies that were implemented in the local context, with varying government measures, and lack of statistical data.

Every crisis has its own specificities, and the COVID-19 crisis is no exception. It requires special measures and responses. The response to the COVID-19 crisis was not aimed primarily at stimulating overall demand to encourage increased supply, as home isolation rendered both of these components largely insensitive to conventional macroeconomic stimuli. Instead, the focus was primarily on providing crucial support to businesses and households during lockdowns by offering essential bridge financing and resources. The crisis was also unique in its scope, witnessing unprecedented coordination among monetary, fiscal, and prudential policies. Furthermore, it stood out for the specific characteristics of the response in each policy domain [4].

By analyzing the implications of the pandemic on female entrepreneurs, including the dynamics of company operations and the obstacles encountered during the closure, this research sheds light on the profound changes brought about by the COVID-19 pandemic in the business landscape. The impact of both the energy crisis and the economic crisis on entrepreneurship is significant and multiple. Energy crises can increase business costs, which can reduce the scope of business activities. That leads to a drastic drop in profits in most sectors and reduces their resilience and future capacity for generating profit. Entrepreneurs had to find innovative solutions for all aspects of their business, in order to cope with the consequences of the pandemic.

Market shifts and changes in consumer behavior during energy crises can also be leveraged by entrepreneurs who provide sustainable energy solutions. Policy and regulatory changes, as well as shifts in investment patterns, can also affect entrepreneurial ventures. Adaptation and resilience are crucial for businesses to navigate supply chain disruptions caused by energy crises. Although difficulties regarding access to finance were a challenge. Special programs and incentives were created to support the most persistent ones with the best business ideas.

Influence of COVID-19 on Entrepreneurship

The COVID-19 pandemic has expedited the advancement of digital technologies and the adoption of innovative digital solutions as a means to sustain business operations, with a particular emphasis on remote work whenever feasible. The impact of the pandemic has brought about a significant transformation in the behavior of consumers, buyers, and suppliers, prompting a shift towards online business platforms and remote work arrangements. Considering that there was a drop in economic activity, we have less turnover and fewer profits, while many recorded losses or were forced to stop their business or suspend it temporarily.

The global community found itself inadequately equipped to swiftly respond to the rapid spread of the COVID-19 pandemic, resulting in significant repercussions on economic dynamics and productivity. COVID-19 brought about profound consequences, affecting both public health and global economies. It proved to be a substantial shock, catching even industries that swiftly transitioned to remote work off guard. While certain sectors experienced substantial losses, the pharmaceutical industry, along with drug and vaccine manufacturers, experienced substantial profit growth, multiplying their wealth several times over [6].

The consequences of COVID-19 we still felt today. The main impact of a pandemic on entrepreneurship is:

1. Economic slowdown: lockdown measures, travel restrictions, and social distancing regulations led to the closure or limited operations, particularly in those industries such as hospitality, tourism, retail, events etc.

2. Uncertainty: difficulties for businesses in planning the future and investing in long-term projects.
3. New market trends: COVID-19 has given rise to new needs and demands in the market, such as remote work, online shopping, telemedicine, etc.
4. Emergence of new business opportunities: such as producing personal protective equipment (PPE), creating online learning platforms, and offering contactless delivery services.
5. Shifts in consumer behavior: Consumers have become more cautious about health and safety, resulting in increased demand for hygiene products, health-related services, and online shopping.
6. Access to funding challenges: The pandemic has caused uncertainty in financial markets, leading to challenges in accessing funding for entrepreneurs. Venture capital investment and business loans have become more selective, with investors and financial institutions being more cautious in their decisions.
7. Remote work and virtual collaboration: Entrepreneurs who can provide solutions and services to facilitate remote work, virtual meetings, and team collaboration have seen increased demand.
8. Resilience and adaptability: Entrepreneurs have had to quickly pivot their business models, adjust their strategies, and find new ways to generate revenue. Those who have been able to adapt demonstrate their ability to withstand challenges and position themselves for future success.

Overall, the pandemic has highlighted the importance of entrepreneurship and innovation in times of crisis. Entrepreneurs have had to be flexible and adaptable, and many have risen to the challenge by creating new products and services which have helped to mitigate the impact of COVID-19. Governments globally have taken action to lessen the effects of the COVID-19 pandemic on both people and economies. The specific policies enacted and their timing vary from country to country based on factors such as the severity of the outbreak and the economic status. However, a common objective of these measures is to provide assistance to small and medium-sized enterprises (SMEs) during this challenging time. In Serbia, the government has implemented a series of

measures aimed at supporting the private sector and employment through financial aid [3].

The National Bank of Serbia (NBS), through temporary measures, maintained stability in the foreign exchange market, supported liquidity and credit activity, and helped preserve the domestic real sector. Without these measures, the economic decline in 2020 would have been significantly greater, and the recovery slower. Serbia entered the crisis with strong macroeconomic fundamentals and fiscal discipline, which enabled an effective response and the preservation of production capacities and jobs. Additionally, the NBS's policy of maintaining foreign exchange reserves and supporting the domestic capital market contributed to the economy's resilience to external shocks and ensured more favorable financing conditions, thereby supporting recovery and reducing currency risk [22].

During the COVID-19 pandemic, women faced entirely new challenges and responsibilities. Managing caregiving duties and running businesses simultaneously made women more vulnerable than men. Reflecting on these disparities can help address them not only during the current crisis but also in a sustainable way. This situation presents an opportunity to raise awareness about the importance of a more balanced sharing of family obligations. Employees now experience more autonomy and responsibility regarding their tasks but should have access to structured and regular feedback and performance recording [1].

It is very important to stimulate female entrepreneurship in order to increase the resilience and flexibility of the national economy. Women have demonstrated greater adaptability and flexibility in transitioning to remote work during times of crisis, as indicated by the findings of numerous studies. However, despite their resilience, men are often perceived as more successful and consequently rewarded more frequently through various means. Despite these commonly encountered attitudes, gender dynamics in remote work settings are intricate and sometimes contradictory, particularly concerning less visible aspects. Gender disparities are particularly evident in the primary motivator for work, namely earnings. In most situations and countries, women tend to be paid less than men, especially in traditional office settings [14]. Entrepreneurs

who can identify emerging trends, leverage technology, and meet the evolving needs of consumers have the potential to thrive in the post-pandemic world. In light of the concerted global efforts over the past two years to alleviate the repercussions of the pandemic, COVID-19 has disproportionately affected women.

This poses a significant risk of reversing decades of progress made towards achieving gender equality. This poses a significant risk of reversing decades of progress made towards achieving gender equality in the workplace and in business. It is projected that this setback could add an additional 36 years to the estimated time required to close the global gender gap across various domains, including economic opportunity, political power, education, and health, as indicated by the Mastercard Index of Women Entrepreneurs (MIWE) for the year 2022 [23].

The pandemic has also exposed deep social and economic inequalities, and one of the most significant and often overlooked impacts has been on women. Despite the global efforts to mitigate the consequences of the pandemic, women have been disproportionately affected in many ways. They have experienced higher rates of job losses, particularly in sectors like hospitality, retail, and healthcare, where women are more likely to be employed. Additionally, women have shouldered the bulk of unpaid caregiving responsibilities, as schools closed and childcare options were limited, further limiting their ability to participate fully in the workforce. Women entrepreneurs have faced unique barriers during the pandemic, such as limited access to capital, reduced opportunities for networking and mentorship, and the burden of balancing business with caregiving responsibilities. However, many women have also demonstrated resilience and adaptability, finding new ways to innovate, diversify their businesses, and contribute to the economic recovery. The post-pandemic landscape offers a chance for these women to capitalize on their entrepreneurial spirit and leverage emerging trends in sectors such as e-commerce, health and wellness, fintech, and sustainability. The global efforts to address the pandemic's effects on women must continue, with policies aimed at increasing access to healthcare, education, and financial resources, as well as addressing the gender disparities in business leadership. Creating an

environment where women entrepreneurs can thrive will not only benefit them but will also contribute to broader economic growth, innovation, and social progress.

According to a survey conducted in June 2020, among female entrepreneurs in the central and eastern EU during the COVID 19 pandemic, most additional responsibilities fell on women and mothers. Although half of the women reported that they did not reduce their time devoted to work during the pandemic, many of them had less time for work than before the pandemic. This is supported by the fact that 70.75% of responsibilities related to the home and children were exclusively the responsibility of women in the family [12].

Female entrepreneurs spent more time taking care of children and doing housework compared to the period before the pandemic. This resulted in less time dedicated to work, which was a big challenge for women entrepreneurs. During the lockdown in Finland, the government introduced measures to support businesses on various levels. These measures included providing financial support to small and mid-sized companies and reducing temporary limitations for creditors to file debtors for bankruptcy. Additionally, reliefs for debtors in the execution process were implemented.

In Slovakia, over 40% of women entrepreneurs were affected by the pandemic, with approximately 12% of women entrepreneurs experiencing a substantial impact. The effects of the pandemic on these women entrepreneurs were significant and varied in nature [11]. During the lockdowns and restrictions imposed to control the spread of the virus, numerous women-owned businesses in Slovakia were compelled to temporarily or permanently shut down. This has led to a decline in revenue and increased financial strain for many women entrepreneurs. In 2020, 2.9% of women's businesses were unable to continue, with 45.2% attributing their closure to the pandemic, according to the Global Entrepreneurship Monitor 2021. Similarly, in 2021, 2.4% of women entrepreneurs had to discontinue their businesses, with 53.3% citing the pandemic as the primary reason, as reported by the Global Entrepreneurship Monitor 2022. Despite their crucial role in expanding the economy, women entrepreneurs continue to encounter barriers that hinder their ability to reach their full potential. While the

COVID-19 pandemic presented challenges and hardships for entrepreneurs, it also brought forth new prospects. In Slovakia, 36.2% of early-career women entrepreneurs and 13.3% of established women entrepreneurs reported that the pandemic created fresh business opportunities in 2020. (GEM 2020/21).

In Hungary, loss of customers disrupted supply chains, and reduction in orders were some of the difficulties faced by businesswomen. The survey identified four coping strategies: reducing activities, adapting by introducing new products or exploring new markets, investing in maintenance and development, and utilizing available subsidies. However, a significant number of respondents did not qualify for subsidies, such as wage subsidies, due to their self-employed status. Instead, some took advantage of the suspension of tax payments and loan repayments. A significant majority of women entrepreneurs in Serbia, amounting to 76%, have highlighted the detrimental effects of the COVID-19 pandemic on their businesses. More specifically, 24% of them indicated that the pandemic had a somewhat negative impact on their company's operations, while a larger proportion, 33%, stated that it significantly worsened the state of their enterprises. Furthermore, the pandemic disrupted the operations of 19% of women-owned businesses in the country [17].

In Serbia, there has been a modest increase in the total employment of both men and women in 2022 compared to 2019, as shown in Table 1. These figures provide an overview of changes in labor market participation and employment trends, with notable fluctuations linked to the economic effects of the pandemic in 2020, followed by a partial recovery in the following years. Based on the analysis of the table on labor activity by sex and age (15-74 years) for the period from 2019 to 2022, the following conclusions can be drawn:

1. **Stability of the Total Population.** The overall population remained relatively stable during this period, with only slight decreases observed.
2. **Increase in Active Labor Force Participation.** Both male and female participation in the labor force showed a gradual increase, with a particularly noticeable rise in female participation.

3. **Stability of Employment.** Employment levels remained relatively stable across the years, with slight increases in certain categories, particularly among women.
4. **Decrease in Unemployment.** Unemployment rates showed a slight decline over the observed period, especially among women, indicating a positive trend in job opportunities.
5. **Decrease in People Out of the Labor Force.** The number of individuals not participating in the labor force decreased for both men and women, suggesting a higher level of engagement in economic activities. This was particularly evident among women.

The number of people not participating in the labor force (the "out of labor force" category) decreased among both men and women. This decrease may indicate a higher level of engagement in economic activities, especially among women. The analysis shows that during the observed period, the total population decreased, but there was a positive trend of increased female participation in the labor force. Employment remained stable, while unemployment slightly decreased, especially among women. Additionally, the number of people out of the labor force declined, suggesting higher engagement in economic activities, particularly among women.

Table 1: Population by working activity, sex and age 15-74 in thousands

Year (IV quarter)	2019	2020	2021	2022
Total male:	2623.3	2611.1	2596.0	2565.9
Total female:	2711.0	2699.0	2687.3	2660.4
Active male:	1736.1	1746.9	1781.2	1746.1
Active female:	1378.4	1369.6	1435.4	1419.8
Employed male:	1562.9	1565.2	1620.7	1579.8
Employed female:	1223.6	1216.1	1279.2	1294.9
Unemployed male:	173.2	181.7	160.6	166.3
Unemployed female:	154.8	153.5	156.2	124.8
Out of labour force (male):	887.3	864.2	814.8	819.
Out of labor force (female):	1332.6	1329.4	1251.9	1240.6

Source: Authors' illustration based on data from Statistical office of the Republic of Serbia [21]

Further, data collected at the onset of the pandemic in Romania revealed that a significant majority, comprising 84%, anticipated that the pandemic would impact their financial situation. Surprisingly, only half of the respondents, accounting for 49%, reported having financial reserves available during the spring period. Furthermore, among those with reserves, 41% stated that they had enough funds

to cover expenses for only 1 to 2 months. These findings were reported in the COVID-19: Romanian Economic Impact Monitor for the year 2020 [5].

In Bulgaria, nearly half of the companies have experienced a decline in revenue, with education, creative industries, art, recreation, and tourism being the most affected sectors. Lockdown measures have led to reduced demand for products and services, particularly in education and tourism.

Some positive effects include the introduction of new products and services in education, creative industries, art, and ICT sectors, as well as increased online sales. Women entrepreneurs have taken steps to secure their businesses, such as cutting office expenses, freezing hiring, and reducing marketing spending. Instead of layoffs or salary reductions, companies have implemented alternative measures, including remote work for 60% of employees, considering alternative incentive compensation for 52%, and placing workers on furlough (leave of absence) for 36% [19].

When looking at the current economic situation in Spain, it is important to take into account not only the current crisis but also the many structural changes that are taking place. The pandemic energy and economic crisis has had a strong impact and deepened the gender gap in the Spanish economy, especially in already vulnerable sectors. For example, women's work is considered 1.8 times more vulnerable in crises compared to men's work, according to G20 insights data [10].

In Spain, the rate of female entrepreneurship is 4.8%, in contrast to male entrepreneurship (5.6%). The majority of women who establish a business do so out of necessity (74%) and emphasize that men have more opportunities for entrepreneurship (27.6%). Gender inequalities are particularly pronounced when it comes to leadership. In Spain, only 33% of companies are run by women.

Despite efforts to promote gender equality in entrepreneurship, women entrepreneurs still represent only one-third of entrepreneurs in the EU Member States. The COVID-19 pandemic has exacerbated the challenges faced by women entrepreneurs in sustaining their businesses and has added further complexities to balancing work and personal life responsibilities. During these hard times, it becomes

crucial to empower women entrepreneurs, particularly those facing additional barriers and limited access to support services. This empowerment involves providing them with the necessary resources to implement and enhance their business plans, equipping them with skills to adapt and thrive in the face of challenges, enhancing their digital literacy, and enabling them to effectively navigate crisis situations. These efforts are highlighted in the RE-FEM project, titled 'Upskilling pathways for Resiliency in the post-COVID era for Female Entrepreneurs', which aims to support and empower women entrepreneurs in the year 2023 [20].

Female entrepreneurship is increasingly acknowledged as a crucial driver of business growth and the establishment of new ventures in the 21st century, ultimately fostering economic development on a broader scale. The significance of female entrepreneurship extends beyond developed nations, impacting both less-developed and more advanced economies alike. Notably, female-led businesses play a pivotal role in enhancing economic prosperity and alleviating poverty. In addition to generating employment opportunities, female entrepreneurship contributes to workplace diversification by introducing innovative processes and adopting distinct management and marketing practices. These observations underscore the multifaceted benefits that female entrepreneurs bring to economies [16]. In summary, the COVID-19 pandemic has presented significant challenges for entrepreneurs, but it has also created new opportunities for those who can adapt, innovate, and respond to the changing business landscape.

Energy Crisis and Entrepreneurship

The impact of an energy crisis on entrepreneurship can be observed through various channels. Firstly, businesses face increased costs as the price of energy rises due to supply shortages or heightened demand. This rise in energy costs directly affects operating expenses, particularly for energy-intensive sectors like manufacturing and transportation, thereby reducing profit margins and impeding business growth.

An energy crisis not only poses challenges but also presents opportunities for innovation and growth. The

pressing need to address the crisis serves as a catalyst for entrepreneurs to explore and develop alternative energy solutions. This includes renewable energy sources such as solar, wind, and hydroelectric power, as well as advancements in energy efficiency and storage technologies. Entrepreneurs are driven to create innovative products and services that contribute to a more sustainable energy future.

Despite the widespread disruptions caused by the pandemic, the global renewable energy and solar markets have demonstrated resilience. These markets have shown no significant negative impacts on their dynamics, indicating their ability to withstand external shocks. This resilience underscores the importance and potential of renewable energy sources in ensuring energy security and sustainability in the face of various challenges.

Furthermore, the continued growth and development of renewable energy markets present opportunities for job creation, economic growth, and environmental sustainability. As governments and organizations increasingly prioritize clean energy initiatives, entrepreneurs play a crucial role in driving innovation and advancing the transition towards a more sustainable energy landscape.

Concerning trend persists in the realm of female participation within the global solar energy market. Unless there are substantial changes to the current conditions, female representation in this sector is expected to remain consistently low. This observation underscores the need for proactive measures to address barriers and create opportunities for women in the renewable energy industry [25].

Energy crises trigger market shifts and changes in consumer behavior. Consumers become more conscious of their energy consumption, prompting a demand for energy-efficient products and services. Policy and regulations also play a significant role during such crises.

Influence of the Economic Crisis on Entrepreneurship

During the COVID-19 wave, many entrepreneurs faced significant challenges, and a large number had to close their businesses. Entrepreneurs are highly committed to keeping their businesses alive, especially as they often use their personal assets to meet their obligations. This

makes their survival very vulnerable. Access to capital and funding can become challenging during economic crises. Financial institutions may become more risk-averse, tightening lending criteria and making difficult for entrepreneurs to secure loans or investments.

Economic crises often lead to business closures and bankruptcies, reducing competition in certain sectors or markets. Entrepreneurs who successfully navigate through crises often discover opportunities to expand their market share, potentially accelerating their growth trajectory. This is particularly true during economic downturns when cost-saving and efficiency measures become imperative. Entrepreneurs must meticulously evaluate their operations, streamline processes, negotiate favorable terms with suppliers, and optimize resource allocation.

Focusing on cost-saving strategies allows businesses to streamline their operations, making them more agile and effective in navigating challenging economic conditions. By prioritizing efficiency and resource optimization, businesses not only enhance their ability to weather immediate crises but also bolster their long-term resilience.

This proactive approach enables businesses to adapt to future uncertainties, positioning them for sustained success in an evolving market. By fostering innovation, understanding emerging trends, and creating flexible business models, companies can secure long-term profitability.

During economic crises, governments often introduce policy changes, including stimulus packages, financial aid, and reforms, which may involve incentives, support programs, or new regulations. Entrepreneurs who stay informed and adapt to these changes can gain a significant advantage, benefiting from funding, tax breaks, or simplified regulations. Quick adaptation helps businesses emerge stronger from a crisis.

Staying informed allows entrepreneurs to capitalize on opportunities, mitigate risks, and ensure compliance with evolving regulatory frameworks. Building strong relationships with policymakers, investors, and industry associations helps businesses navigate regulatory changes and anticipate emerging trends.

Monetary policy, particularly the central bank base rate, influences borrowing costs, investment, and economic activity. Lower interest rates stimulate demand, while higher

rates curb inflation. Countries with low rates before the COVID-19 crisis had limited room for adjustment, leading many central banks to adopt unconventional measures like quantitative easing to support financial stability. Businesses in these regions faced challenges navigating a complex financial environment with low rates and high government intervention.

In such an environment, entrepreneurs must remain adaptable and strategic, leveraging available financial tools and government programs while also being prepared for potential shifts in monetary policy. Understanding the broader economic context and staying informed about changes in fiscal and monetary policy will allow businesses to make informed decisions, manage risks effectively, and maximize opportunities as they arise.

Instead, these nations were compelled to turn to unconventional monetary measures. For instance, countries with low interest rates relied more heavily on central bank guarantees and financial asset purchases. They were also more inclined to ease macro prudential lending regulations and restrict shareholder payouts, such as dividends or share repurchases, by financial institutions [2].

Economic crises often lead to business closures and bankruptcies, which can reduce competition in specific sectors or markets. Entrepreneurs who manage to navigate through the crisis and keep their businesses operational may find themselves facing fewer competitors, allowing them to capture a larger market share and potentially experience faster growth. Although they may encounter

challenges such as limited access to funding and a difficult market environment, these entrepreneurs can also capitalize on the opportunity to innovate, explore new market niches, and build more efficient and resilient businesses. Additionally, Figure 1 below highlights the differences in unemployment rates between men and women in the observed country.

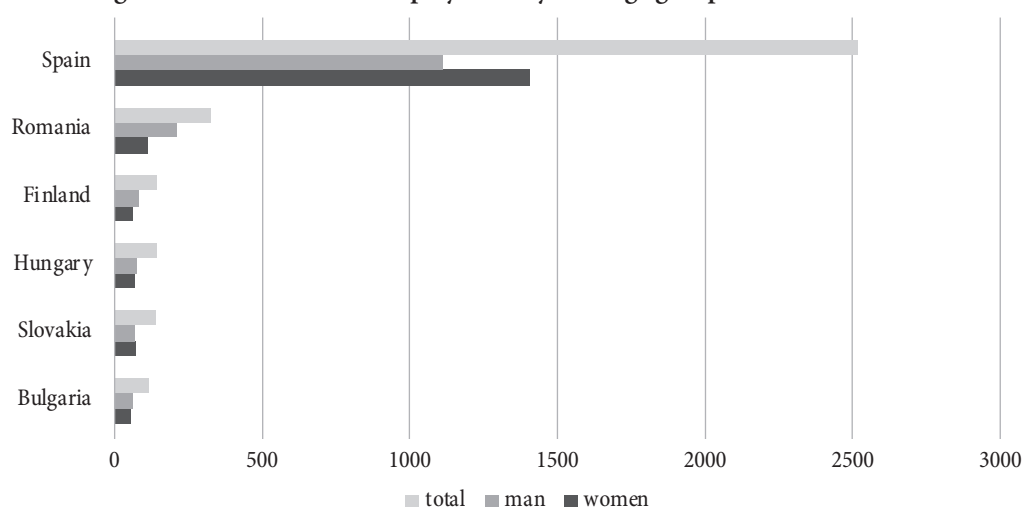
European countries implemented various short-term fiscal, monetary, and macroprudential measures during the COVID-19 crisis, with the amount of state aid largely depending on the economic strength and wealth of the countries rather than the severity of the crisis impact [24].

For example, the Finnish state gave some subsidies during the years of the pandemic. The subsidies have been tailored to specific time periods, industries, and company sizes. It can be seen that the support ranged from support for lost income and compensation for having been forced to close their operations during the pandemic to specific support for the event industry in particular, for the cultural industry and support to re-employ people when the pandemic has eased and support for sole proprietors. On the other hand, the list does not show any support specifically for female entrepreneurs [23].

Women entrepreneurs in Slovakia did not have dedicated support measures, but they could utilize general assistance programs for entrepreneurs to address the challenges posed by the pandemic. This support included:

1. Financial assistance from the government: Entrepreneurs could apply for a rent subsidy if they had closed their

Figure 1: Harmonized unemployment by sex - age group 25-74 in thousands



Source: Authors' illustration based on EUROSTAT database [9].

premises or significantly reduced their activities due to COVID-19 as well as enterprises in difficulty. Entrepreneurs could also apply for reimbursement of the cost of mandatory employee testing.

2. Government policies like various policies to support women entrepreneurs during the crisis - tax breaks, reduced bureaucracy, increased access to capital.
3. Incubation and acceleration programs by National Business Centers formed by SBA to receive (online) support and mentorship in developing their businesses, and online resources such as online courses, webinars, and forums, to receive training and support in managing their businesses. OECD studies on SMEs and entrepreneurship policy in the Slovak Republic [15].

The challenges faced by women entrepreneurs in adapting to the digital landscape during the pandemic highlight existing disparities in access to resources, education, and support networks. Addressing these disparities requires targeted efforts to provide women with the necessary skills, resources, and support to navigate digital platforms effectively. By promoting digital literacy and fostering an inclusive entrepreneurial ecosystem, governments and organizations can empower women entrepreneurs to thrive in the digital age and contribute to economic recovery and growth.

In Bulgaria, the government has implemented various measures to support economic activities and help entrepreneurs navigate the new business landscape while preserving jobs. During the initial phase of the pandemic, over one-third of the policy initiatives focused on keeping businesses afloat.

This included non-repayable grants to assist micro and small businesses in covering ongoing operating costs. Access to finance was also prioritized through government-backed bank guarantees for business loans at low-interest rates and the deferral of financial obligations like taxes and loan payments. In response to the energy crisis additional measures were introduced, such as compensating businesses for electricity bills and providing funding opportunities for SMEs to invest in energy efficiency as part of the National Recovery Plan [7].

The European Union (EU) has implemented several measures to promote entrepreneurship and support entrepreneurial activities across its member states. Here are some key EU initiatives aimed at fostering entrepreneurship:

1. European Entrepreneurship Action Plan: focusing on access to finance, training and improving business skills, reducing administrative burdens, and fostering entrepreneurship in underrepresented groups.
2. Erasmus for Young Entrepreneurs: facilitates exchanges between new or aspiring and experienced entrepreneurs across EU countries, offers opportunities to gain practical knowledge and experience, acquire new skills, expand networks, and develop businesses.
3. Horizon 2020 and Horizon Europe: support research and innovation projects driven by entrepreneurs. They provide financial assistance to develop and commercialize innovative products, services, and technologies, aiming to enhance Europe's competitiveness in the global market.
4. European Structural and Investment Funds (ESIF): provides financial support to regions across the EU to promote economic development and entrepreneurship. It supports various activities, including business start-ups, development, and innovation, access to finance, education and training of entrepreneurs, reducing regional disparities.
5. Start-up Europe: fostering networking, collaboration, and cross-border entrepreneurship. It aims to create a favorable environment for start-ups to thrive and scale up, providing access to resources and expertise.
6. Digital Single Market Strategy: with the aim at removing barriers and creating a unified digital market
7. European Investment Fund (EIF): provides financing and guarantees to financial intermediaries and venture capital funds, supporting small and medium-sized enterprises (SMEs) and start-ups. Initiatives like the European Fund for Strategic Investments (EFSI) and Innovis improve access to finance for entrepreneurs and stimulate investment in innovative businesses.
8. COSME: Program for the Competitiveness of Enterprises and Small and Medium-sized Enterprises

offers financial instruments, advisory services, and networking opportunities.

9. European Small Business Act (SBA): promotes entrepreneurship through measures such as reducing administrative burdens, improving access to finance, fostering skills development, and promoting responsible business practices [8].

These initiatives demonstrate the EU's commitment to entrepreneurship as a driver of economic growth, innovation, job creation and resilience of the European economy as a whole. The most important reason for empowering entrepreneurs and especially women entrepreneurs are reflected in:

1. Economic growth: Entrepreneurship can stimulate economic growth by creating new jobs, and driving competition in the market.
2. Innovation and technological advancement: Entrepreneurs often bring new ideas and innovations to the market, leading to technological advancements, and improved products and services.
3. Increased productivity: Entrepreneurial activities can enhance productivity by introducing efficient processes, and leveraging new technologies.
4. Regional development: Entrepreneurship can contribute to the development of specific regions by attracting investments, creating local job opportunities, and revitalizing local economies.
5. Social mobility: Entrepreneurship provides opportunities for individuals from various backgrounds to improve their socio-economic status, enabling upward social mobility and reducing income inequalities.
6. Diversity and inclusion: Entrepreneurship can promote diversity and inclusion by offering opportunities for individuals from underrepresented groups, including women, minorities, and disadvantaged communities, to start and grow their own businesses.
7. Community engagement: Entrepreneurs often play an active role in their communities, participating in philanthropic activities, supporting local initiatives, and contributing to the overall well-being of society.

Throughout history, women have faced systemic barriers in achieving equal opportunities compared to men in various aspects of life, including job opportunities,

wages, property ownership, and positions of authority in government and the business sector [18].

Despite notable strides in promoting gender equality, persistent disparities continue to plague the workforce, with women frequently encountering unequal treatment and opportunities. This inequity manifests in various forms, including lower wages for women undertaking identical work as men, restricted access to property ownership, and underrepresentation in decision-making positions across both public and private sectors.

Efforts to rectify these imbalances are underway, with ongoing advocacy for policies and initiatives geared towards advancing gender equality and empowering women across all facets of society. However, attaining genuine gender equality demands sustained dedication and concerted action at individual, institutional, and societal levels to dismantle entrenched biases and systemic barriers.

Conclusion

The global pandemic has fundamentally reshaped the business landscape, presenting a myriad of challenges for women entrepreneurs worldwide. However, despite these formidable obstacles, research suggests that women entrepreneurs have exhibited remarkable adaptability, innovation, and resilience in navigating through the crisis.

Throughout lockdowns and travel restrictions, women entrepreneurs have had to pivot and find innovative ways to sustain their businesses amidst changing market conditions. This period has underscored the critical importance of digital transformation and the utilization of technology in business operations.

Studies have also revealed that women entrepreneurs encounter additional hurdles in accessing financing and support. Many financial institutions and organizations have not adequately catered to the needs of women entrepreneurs during the pandemic. Hence, there is a pressing need for specific programs and initiatives aimed at supporting and encouraging women's entrepreneurship to ensure their success and growth.

Research highlighted the potential for innovation and advancement in sustainable energy solutions. Energy crises and market shifts may escalate business costs, but

they also present opportunities for women entrepreneurs engaged in alternative energy ventures. Governments and organizations should provide support and incentives for sustainable energy initiatives to foster the growth of such businesses.

In conclusion, providing adequate support, financing, and education for women entrepreneurs is crucial in navigating the challenges posed by the COVID-19 era and energy crises. By doing so, we can create an environment conducive to their continued progress and contribution to the economy. Amidst lockdowns and travel restrictions, women entrepreneurs have been compelled to pivot swiftly and explore innovative strategies to sustain their businesses amidst the ever-evolving market dynamics. This period of upheaval has underscored the critical significance of digital transformation and the integration of technology into business operations, highlighting the imperative for women entrepreneurs to embrace technological advancements to remain competitive and resilient.

Studies have shed light on the additional barriers faced by women entrepreneurs in accessing essential resources such as financing and support. Many financial institutions and organizations have failed to adequately address the unique needs and challenges faced by women entrepreneurs during the pandemic. As such, there is an urgent need for tailored programs and initiatives aimed at providing targeted support and fostering the growth of women-led businesses. Research has unveiled the potential for innovation and progress in the realm of sustainable energy solutions. Despite the challenges posed by energy crises and market fluctuations, there exists an opportunity for women entrepreneurs to pioneer advancements in alternative energy ventures. Governments and organizations must proactively support and incentivize sustainable energy initiatives to facilitate the growth and success of such enterprises.

In conclusion, ensuring the provision of adequate support, financing, and education for women entrepreneurs is paramount in navigating the complexities of the COVID-19 era and energy crises. By fostering an enabling environment that nurtures women's entrepreneurship, we can unlock their full potential and empower them to make substantial contributions to economic recovery and growth

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Mirjana Dejanović

is IMP Scientific associate. Her professional research area is socially responsible behaviour, economic diplomacy, corporate social responsibility, sustainable development, customer relationship management, corporate culture, e-business, leadership, MID, SMS and entrepreneurship. She obtained PhD in 2014 at the Faculty of International Economics, Belgrade, Serbia. Doctoral dissertation: "The influence of economic diplomacy on the multilateral practice of implementing a new standard of socially responsible behaviour". In period (2008-2009) she was engaged as senior researcher responsible for network studies in Sotiete Generale bank Serbia, and in 2017, she worked as an advisor on the KYC project (Know Your Client), on increasing quality control, and efficiency of the sales process in the "Department for Projects and Analysis". In her work, she focused on developing strategic and long-term relationships with clients of various business lines and activities. She was a mentor and trainer at a large number of trainings, especially education for sales and communication skills. Guest Lecturer: Lecture at the student congress "Safety for All", "Faculty of Safety Belgrade", Zlatibor, March 2017; Lecture at the "Academy of Technical and Art Applied Studies-School of Electrical and Computer Engineering" on the topic "Electronic business and 3D security", December 2017. In addition to lecturing by invitation, she organized and implemented a large number of different socially responsible projects with faculties, schools, employment offices and other organizations. She has several published scientific works, with participation in international scientific conference, and monography: *Socially responsible behaviour and economic diplomacy*, Zadužbina Andrejević, 2014. She is involved as a team member in REFEM Upskilling pathways for resiliency in the post-Covid era for female Entrepreneurs project, Erasmus+ Cooperation partnerships in adult education, (2022-2025). She is also involved as EEN advisor in Enterprise Europe Network project (2022-2025)



Ana Kovačević

is a Junior Researcher at the Mihajlo Pupin Institute. She graduated from the Belgrade Banking Academy, majoring in Accounting, Auditing, and Finance and majoring in Information Technology in Finance. She holds a Master's degree in Information Technologies in Finance. Ana gained work experience as a Junior Associate in the company Eko Digital, whose focus is consulting in the field of business tokenization. She participated in the "Digital Asset" Initiative, which is aimed at the development of the digital assets market in Serbia. Currently, as IMP Junior Researcher, she is involved in research of female entrepreneurship in REFEM Upskilling pathways for resiliency in the post-Covid era for female Entrepreneurs project, Erasmus+ Cooperation partnerships in adult education, (2022-2025) as a team member and junior adviser in Enterprise Europe Network project (2022-2025).