In the last 7 years I have been mentoring entrepreneurs coming from different parts of the World, but mostly from Hungary. It struck me that despite all our efforts to attract women participants, female founder applications to our incubation programs were significantly lower compared to male applicants. Also, the number of female mentors active in our program were multiple times lower than males. Most of my program staff were female - it just happened that way - and I thought that it should in itself send the signal, that we are most welcoming to female founders. We also ran campaigns prominently displaying our - few - female founders, mentors, partners in the program. The response was amazing, yet, the ratio in the applications remained unchanged. Clearly, something more needs to be done. The reasons that hold women back from the entrepreneurial space are complex. This study attempts to uncover some of the underlying issues, and our goal is to use this knowledge to create avenues for women in entrepreneurship.

Andrea Kozma
Director
CEU InnovationsLab
Despite the ongoing war, Ukrainian startups have demonstrated resilience and entrepreneurs continue to operate their businesses under highly precarious conditions. However, **9 out of 10 startups need financial support to continue operations** and/or expand. Some Ukrainian startups have relocated but the vast majority have kept at least a part of their operations or teams in the Ukraine.

As men aged 18 to 60 cannot leave the country under martial law, in anticipation that they may be called to fight, female members of startup teams have to take the lead and go abroad to keep the company alive and expand. This is both a challenge and an opportunity for women while men stay behind and strengthen the home front. And **beyond new gender dynamics in Ukrainian startups**, there is also an **opportunity to grow and look more outwards**: instead of the national market, they are able to think European or even global.

Concerning Poland, there is plenty of support on state-level as well as from the private sector. Most of the immigrants **can operate businesses on the same conditions as Polish citizens** and entrepreneurship is strongly supported through financial means and through social integration and access to the labour market. Moreover, there are public and private funds available for Ukrainian startups, coupled with awards and programs designed for them.

While Ukraine seems to still be a **very traditional, male-dominated society** and being an entrepreneur still raises some eyebrows, the situation changes rapidly. For women, one of the **toughest task is to raise money** as investors look at them differently. We are aware that in the CEE region, all women founded companies received only 1% of the capital, while 5% went to mixed founding and 94% to all male teams, and Ukrainians female founders feel that, too.

Our interviewees confirmed that coming from a nuclear family with entrepreneurs facilitates becoming one, but also that **for being able to conquer tough times such as crossing borders due to war for Ukrainian startuppers, there is a huge need for sources of inspiration and role models.** A lack of high performing female entrepreneurs might strengthen the notion that successful entrepreneurs are men, and help undermine women’s confidence in becoming successful startuppers.
The invasion of Russia on 24 February 2022 has wrecked Ukraine’s economy, which is projected to shrink by as much as 35 percent this year, according to World Bank estimates. Fighting has uprooted millions of people from their homes, choked off access to the country’s ports, disrupted agriculture, and driven up defense spending. According to recent World Bank estimates, recovery and reconstruction needs across social, productive, and infrastructure sectors total at least $349 billion, which is more than 1.5 times the size of Ukraine’s pre-war economy in 2021.¹

In terms of social implications, one of the most determining change is that according to the UN, this is one of the biggest exoduses in European history. Around one million people escaped in the very first week of the war, and since then, 12.6 million people left Ukraine. The number of registered refugees within all EU nations totals approximately 7.3 million. Some four million refugees have received some sort of temporary protection. Poland has, by far, recorded the highest number of Ukrainian refugees entertaining its territory by way of neighboring nations at 1.6 million. However, the number of refugees who remain in Poland is lower, with the latest official government estimates putting the number of 1.4 million.²

The war has caused inconceivable upheaval in the startup ecosystem of Ukraine as well, thus we can only speak of the state of play of startups in the country in terms of before and after the war.

Before the war, the Ukrainian startup ecosystem ranked 50th globally, with Kyiv, Odessa, and Lviv as noted startup hubs. According to Crunchbase data, there are 5900-6000 companies with Ukrainian headquarters, while according to PitchBook data, there are at least 158 Ukraine-headquartered companies that have received VC or angel backing, and almost 300 such companies with a secondary office in the country. Nasdaq-listed software company GitLab, online writing assistant Grammarly, which is valued at $13 billion and B2B software company People.ai. The country has had an estimated 200,000 software developers, according to a 2021 report from the IT Ukraine Association.

However, the war has changed the landscape. Svitlana Malovana, co-founder of RaccoonCare, a preventive care and physical health correction solution for modern companies, recounted her experiences to CEU InnovationsLab in September 2022 as the following:

“At the moment we have about 4000 active startups in the Ukraine. Some of them are canceling their jobs due to the war and the lack of finances, but at the same time we have new startups even now, and I think this is a very good sign for everybody.

Ukrainian startups are a very important part of the worldwide startup ecosystem. It is very important not only for Ukrainian entrepreneurs but for all over the world to support Ukrainian startups. Even before the war, I know about cases when investors stopped the deals with Ukrainian teams because there was talk about the war. In our case, a US partner stopped the negotiations in January and suggested us to get back in March-April. After the war started, some investors were not ready to invest into the Ukraine any more,

---

3 Yarova, Maja. The Ukrainian startup ecosystem during wartime: how they survive and what they need (survey). 17 August 2022.
4 Woodman, Andrew. More at stake in Ukraine than meets the eye. 27 February 2022.
and asked Ukrainian startups about relocation. However, it is impossible because men are not able to leave the country due to their legal obligations to be able to serve in the army, and honestly, it is impossible to relocate 4000 startups. It is just impossible because if such startups will relocate from the Ukraine, they will cease to exist as Ukrainian startups. Ukrainian startups are strong in the worldwide ecosystem because they are Ukrainian, because we have a very strong ecosystem, different hubs, and one of the strongest IT clusters. So if the startup will leave the country then he will not get access to this ecosystem. And the third issue is pricing. A lot of companies have R&D or support in the Ukraine and if they relocate these activities to Europe, for example, the cost will increase.”

Thus, despite the ongoing war, Ukrainian startups have demonstrated resilience and entrepreneurs continue to operate their businesses, remaining committed to their success even in these dire circumstances. More than 1 in 10 startup employees has had to leave their respective firms since the beginning of Russia’s invasion. Not all startups, however, have experienced team reduction. Moreover, more than 4 in 10 startups have not felt any change. However, 9 out of 10 startups would confirm Malovana’s insights: they need financial support to continue operations and/or expand.6

THIRD CHAPTER
Relocation? Flipping? Expansion?

When the war started, startups had to come to terms with the idea of moving their headquarters to other countries, or at least relocating part of their business, or opening a new office in another country. Some Ukrainian startups have relocated but the vast majority have kept at least a part of their operations or teams in Ukraine. Also, those startups that have not relocated are not planning on doing so at the moment. And more than half continue to operate exclusively from Ukraine.7

7 Ibid.
This issue raised many practical challenges but also brought opportunities for startups. The most challenging has been the fact that men aged 18 to 60 cannot leave the country under martial law, in anticipation that they may be called to fight. This means that female members of startup teams are able to go abroad and expand the company - an opportunity for women to take the lead while men stay behind and strengthen the home front.

About the emotional and practical challenges as well as the identified opportunities, Lidiya Terpel, CEO and Co-Founder of Skyworker, a Tinder-like application for IT engineers to switch jobs, told CEU InnovationsLab in September 2022 that,

“These are the hardest times in our life. At the beginning, it was a very emotional jump to another country, and when the war started we all believed that it won’t be such a long story... I think that even during the first months it was easier than now because now we are switching from a sprint to run a marathon. We understood that it’s not a short story. We are already half a year in war and there are different ideas on how long it will be.

So, we are now living between two cities: Warsaw and Kiev. We also understood that the tech market in the Ukraine is frozen a little bit because a lot of companies decided not to hire Ukrainians because of the war.

It is a benefit that 75% of Skyworkers management team are women. So we can move from country to country to test new markets, visit different IT conferences, build networks and just speak with users. The decision to start testing new markets and the emergency changing our base from Kyiv to Europe/US is what allowed Skyworker to continue working and supporting our team in Ukraine. For foreign investors, staying co-founders in Ukraine is also a red flag. And this is a risk for investors. Nobody will tell it straight to your face, but between the words, you understand it. That is why, for the survival of the startup and continued growth, we need to be in the markets of our investors and customers most of the time.”
However, beyond new gender dynamics in Ukrainian startups, there is also an opportunity to grow and look more outwards: instead of the national market, they are able to think European or global, but they are always looking back to support Ukraine. As Terpel says,

“Of course, the war and the attack of Russia at first knocked us off track, but now there is a clear idea that despite everything, we must grow and show the world that Ukraine is also about those cool specialists and startups that bring innovation.

Currently, the business team is mostly located in the USA and Europe. Our development and customer support remain in Ukraine. I see the sense now to invest in entering new markets to stabilize the situation in the company and further growth. Because our personal responsibility now is to provide for Ukrainian workers and to be able to convey and have an influential voice in the world business arena to promote pro-Ukrainian narratives. This is especially important today because even the pro-russian population abroad is able to block and slow down the world’s support for Ukraine. Therefore, at every opportunity, we try to tell foreigners the truth about what is happening in Ukraine and what crimes Russia is committing.”

Another Ukrainian female founder, Anna Andruschak, who co-founded the Fruittorg marketplace to connect local farmers to the global market, was telling CEU InnovationsLab in October 2022 about a similar attitude change and market focus change.

“When the war came, we stopped for a little bit because my co-founding partner, Sergey, started to do a lot of volunteering. From May we decided that ok, it’s time to relaunch, to start work more and we changed the market a bit. Because before the war, we focused on the Ukrainian market, but right now our focus is mostly the Polish market, but of course we are open for other countries, as well. (...) And yes, I am in Poland now, abroad, because I’m a women, while Sergey has to stay in our city in the Ukraine”.
Although changing the market, the focus of the startup, or even the headquarters of the team so abruptly is tough, and requires resourcefulness, resilience, and a lot of energy, Ukrainian startuppers get support from their own government, a lot of international and national organisations, as well as other governments.

It is not by chance that most Ukrainian people who fled to neighbouring countries stayed in Poland in the largest numbers: from 1.6 million, 1.4 million people has been staying permanently, or going back and forth between various countries - we cannot be sure about the exact numbers. However, it is for sure that in Poland, most of the immigrants (including refugees, those with a permanent or temporary residency permit, and those having a Karta Polaka – a Pole’s Card) can operate businesses on the same conditions as Polish citizens. And the rest of foreigners can start a company in Poland (e.g. a private limited company), which does not require a permanent physical residency in the country. Entrepreneurship is strongly supported through financial means and through social integration and access to the labour market.\(^8\)

As Andruschak experienced the relocation,

“We are staying in Krakow for now. To have the registration in Poland, we just needed a tax number and it works for everyone, so it doesn’t matter whether you are Ukrainian or you are from another country: It’s just the Polish tax number and this number can gain access for you everywhere. So it was not a problem to register the company for Ukrainian people. The relocation took for us one and a half month, and if I’m not mistaken it was 800 dollars. Still, there was a lot of papers, a lot of work, a lot of time. So we couldn’t deal with that by oursefls so we asked another person who is a professional there... It wasn’t super easy.”

\(^8\)OECD. Inclusive Entrepreneurship Policies. Country Assessment Note: Poland. 2018
And there are different sentiments about the general support of the Polish state, organisations, and the people, however, the overall feeling is that Poland welcomes Ukrainian female startuppers.

As Terpel says,

“And in Poland now... we feel ourselves really at home because the country and everybody understood what happens in Ukraine, there are Ukrainian flags everywhere, everybody wants to help you and we received a lot of help from networking, like contacts, free office spaces, some help at the beginning with some intros... Even at the beginning it was help with flats, which we recieved absolutely free during the first days, when we just came to Warsaw.

But all-in-all, and it is not related to the Polish welcome, I think that Warsaw is not a place where we will stay for very long, for the next years because we should be where we will grow our market. If you live near to your potential customers and your users, you can understand them better. We have already recieved the proposal from one US accelerator to join them, so now we are working on the visa to be able to do that”.

And Malovana could also give a bit of a nuance to the picture:

“I spent a lot of time in Poland from April to July so I also met a few people who were not happy that Ukrainians are in Poland, but most of the people were ready to help and to support. But I think it is quite normal from a sociological point of view that people are not comfortable with things changing, to be afraid that Ukrainians will get, for example, a lot of job offers and there will be not enough job offers for Polish people. Sometimes they are not mentally ready to listen to stories about Ukrainian tragedies and war in Ukraine. I did not see in Poland any such situations that people would hate Ukrainians or something like that. It is more about these psychological issues.”
Beyond the Polish state offering the same conditions for Ukrainian refugees to open their businesses as if they were Polish citizens, they are organizing various programs for Ukrainian startupper as well. For example, The Polish Investment and Trade Agency (PAIH) provides free office space for Ukrainian companies. Also, Demium, a talent accelerator, provides Ukrainian startups with space in their coworking in Warsaw. Help with offices and workplaces often works through personal contacts and recommendations, but they made the promise that there will always be a place there for Ukrainian startups. The Polish government also established the Poland Prize program, where companies can receive up to 66,000 euros in investment and soft-landing support. And international companies have also been active in the support of Ukrainian startups: the biggest news in recent months has been that Google had been allocating $5 million to support 50 companies - as we could see, including Terpel's Skyworker.

Cross-border cooperation also works very well: the Polish-Ukrainian Startup Bridge was established, for example, which deals with successful relocation and expansion of Ukrainian startups to Poland. Andruschak and her company also gained support from the organisation. She says that,

“it helps us to jump more conveniently and be more confident on the Polish market because they provide a lot of connections. We were also able to integrate into the Polish ecosystem and be more aware of what’s going on. We already joined the Polish-Ukrainian Startup Bridge before the war, we had support from our mentor, but when the intervention started they launched the support for Ukrainian startups and we applied to this specific program as well.”

---

9Grant, Max. How Poland's Startup Ecosystem Supports Ukraine. Tech Ukraine. 6 May 2022.
Ukraine stands at the 52th place on the list of the countries of the world when considering the Gender Inequality Index, which means it has lots to do when it comes to gender equality. For example, women earn on average 23% less than men, and only 23% of management positions go to women. Concerning the Ukrainian startup ecosystem, we do not have accurate data but it is an indication that last year, in Ukraine’s tech industry, only 22% of the country’s 200,000 tech specialists were women, according to surveys, up from 7% in 2011.

Asked about the gender ratio and gender disparity, our interviewees said that Ukraine is still a very traditional, male-dominated society and being an entrepreneur still raises some eyebrows - although the situation changes rapidly.

Malovana told CEU InnovationsLab that,

“we have less women entrepreneurs in Ukraine than man. Why is that? Here we can identify two reasons: one is financial because less people are ready to work with women, they get less salaries and so on. And the other one is that men are not ready to see women as entrepreneurs. And the same with women, they often used to live not such a stressful entrepreneur life, and sometimes even stay at home. I’m not sure though that we need to push them somehow to be entrepreneurs, this is the decision of every person, women and men.

I think we have some positive differences if we are talking about the IT industry but if we get out of it, the situation is like that. Even when I meet my relatives it is quite a normal question from my male relatives to me that you are entrepreneur, what? ... I see that they do not want to hurt me, it is just not normal in their minds.”

Terpel added that,

“If we speak about 100 of startups, maybe 10% of them are female in the Ukraine… with co-founders...

But I have no statistics. I only know the interesting fact that when startups speak at startup competitions,

---

10 UNDP. Gender Profile: Ukraine.
11 Antoniuk, Daryna. If women in Ukraine love working in tech, why are there so few? Kyiv Post. 28 June 2021.
previously it was only men but in the last 3 years something changed and half of the presentations are run by girls, sometimes those girls are not even the co-founders, but head of sales or something like that. But somehow the guys decided that it’s better to organise the presentation of a startup by a female representative.”

And Andruschak confirmed that for women, one of the toughest task is to raise money as investors look at them differently. Her sentiment confirms our finding that in the CEE region, all women founded companies received only 1% of the capital, while 5% went to mixed founding and 94% to all male teams. At the same time, VC partners investing in the CEE region are predominantly men (93%), while women are heavily underrepresented counting for only 7%.

“Based on my experience, if you are a woman so to get an investment or to gain some prize during startup competitions usually you need to be much more confident, straight forward then men, you should have really amazing pitch besides the idea and business, all your answers on questions should be very direct and correct.

Once I had the pitch during one competition and I really experienced that attitude, of course we are moving forward to equal perception, the movement of female founding is growing every day, and I think it is amazing. But when you are a woman especially young woman, you really need to show all your pressure to prove on psychological level that you are leading your startup well and could achieve your startup goals”.

12 Nicol-Schwarz, Kai. Female founders received just 1% of funding in CEE region in 2020.
The institution of the family has a huge impact on entrepreneurship - either as a booster or as a barrier, as we found in our previous reports both in Poland and Hungary. Based on our interviews, the family plays a significant role in the case of Ukrainian female entrepreneurs as well. 2 out of 3 of our interviewees have entrepreneurs in their nuclear family.

As Malovana says,

“My father was an entrepreneur, I used to work at his firm from age seven. So I used to be an entrepreneur from age seven, practically. My sister... she is also an entrepreneur. Actually, she tried to pitch her startup in Germany, a startup related to digital health.”

Andruschak told CEU InnovationsLab that,

“My mother started a few businesses. She is a very inspired, energetic person and right now she is doing her small business in France. She was doing that in the Ukraine and it was quite successful in a local manner, but right now she is in France and she figures it out how to do that in another country.”

And Terpel recounted another interesting aspect of the “family startup” - the situation when a pair establishes the business.

“For me, the most interesting thing is that when we see some female co-founders in Ukrainian startups, mostly, she will be co-founder with her husband or with her boyfriend, so like the couple which runs the whole startup. It’s an interesting case. There are only a few cases when the female founders are in another constellation. But I think our company is the only one startup in Ukraine where we have two female co-founders.”
In her 2013 book, Dafna Kariv says that generally, in the ‘collective mind’, entrepreneurs are ideally still men: Bill Gates, founder of Microsoft; Steve Jobs, founder of Apple; Marck Zuckerberg, founder of Facebook; William Edward Boeing, founder of The Boeing Company - or the controversial Elon Musk, founder of SpaceX and Tesla. In their research, Bird and Brush (2002) establish the same, meaning that traditionally, entrepreneurs are men, while Shan and Venkataraman (2000) says that entrepreneurs must have characteristics that are generally considered to be in the possession of men. This notion is also present in the case of Ukrainian startuppers but there is hope: the appearance of the CEO of Canva, Melanie Perkins, an Australian billionaire technologist, already makes a difference.

Terpel says that,

“I know that I wanted to be a businesswoman from my teenage years, it was my dream. I didn’t have any connections to the business world because at that time I lived in a little village. So, I moved to a bigger city to study, then after finishing the university and after one and a half years of working in a company, I started my own business. I was 24 or something. So my ideals were all the great examples, very typical and famous people like Elon Musk or Jeff Bezos from Amazon, I have read some of their stories and I was inspired by those stories. I still haven’t got an example for the perfect female founder, maybe a little bit the CEO of Canva, but also she is a representative of the case when she has been running her husband’s startup…”

Andruschak added that,

“I can think about some extraordinary people as well but for me it is my mother. I think she is a role model for me in many aspects. But also if we talk about others... It’s very funny, because she is not a startup woman, but Jennifer Lopez really inspires me a lot because she proved to the whole world that nothing is impossible.”

For being able to conquer tough times such as crossing borders due to war for Ukrainian startupper, there is a huge need for sources of inspiration and role models. A lack of high performing female entrepreneurs might strengthen the notion that successful entrepreneurs are men, and help undermine women’s confidence in becoming successful startupper and entrepreneurs, while the (in)ability to raise funds further discourages women from moving on to the next fundraising round.\footnote{Kézai, Petra Kinha & Konczosné, Mátra Szombathelyi. Nők a startup-vállalkozások világában Magyarországon. (Women in the world of startup entrepreneurs in Hungary). Vezetéstudomány/ Budapest Management Review. Vol. 2020. Nr. 10. October 2020. DOI: 10.14267}

NEW DYNAMICS: UKRAINIAN FEMALE STARTUPPERS ON THE RISE

However, Andruschek says that the terrain is significantly changing, at least for Ukrainian startupper, it seems so. Especially with the support of female communities.

“I see since last year, for sure that it’s a big moment for female founders, for female C-level executives and other women. Maybe you have heard of Wtech Club in the Ukraine, it’s a very huge club of women who are in IT. They are expanding to the Polish market, and they have some representatives in Berlin and in Paris. I see it as a positive dynamic because I see more and more women who are leading really successful startups, who are presenting, who are pitching. It makes me feel really good.”

And our interviewees even have a message to investors who are a bit afraid to invest in the Ukrainian startup ecosystem. Malovana says that

“Just look at Israel’s case. They have been at war for the last 20 years and right now they have entire infrastructures that are safe for the citizens, but 20 years ago they did not have. They have the same situation as we have in Ukraine today but the world continues investing and doing business with Israel. So why can’t you take the same case and implement it to Ukraine?”
The project was funded by Nasdaq.
The report was written by Nóra Radó, researcher, CEU InnovationsLab.