



03	Foreword	S
06	About the Region	\vdash
07	Macro Environment	Z
14	Research Methodology	Щ
15	Meso Environment	
26	Main Conclusion	
28	Recommendations	
29	References	U

Istanbul Technical University Center for Entrepreneurship and Innovation (İTU GINOVA) is proud to present the results of the Inclusivity Regional Scan with focus on the "Gender" dimension from the entrepreneurial ecosystem in Istanbul, one of the major hubs in the European and MENA regions.

After the launch of the Europe 2020 strategy and recent policy measures to expand entrepreneurship in each of the EU Member States (e.g. The Missing Entrepreneurs, 2019), Europe has taken the path to strengthen entrepreneurial culture and networks bý pulling strategies and actions together to enable everyone to start a successful and sustainable business, despite their gender, age, place of birth, or other personal characteristics.

The assumption that underlies most entrepreneurial ecosystems is that all entrepreneurs have equal access to resources and support within the entrepreneurial ecosystem. In theory, this assumption is valid, however, in practice, this is not always the case (Brush et al., 2019). According to the 2nd European Start-up Monitor, only 14.8% of start-up founders are female.

The Global Entrepreneurship Monitor 2019 shows that Europe had the lowest female involvement in early-stage Entrepreneurial Activity of every analysed region (6%) and the lowest gender parity. The lower entrepreneurial activity amongst women has been argued to be owed to the traditional general attitudes in entrepreneurship education, which are discouraging for women (Dilli & Westerhuis, 2018, p. 375).

Traditional masculine assumptions are therefore fed into ideas about entrepreneurship, which in turn are presented to students in a classroom. There is little to no reflective process in the development of the curriculum and entrepreneurship courses in challenging the 'gendered entrepreneurship' (Tegtmeirer & Mitra, 2015, 266).



Against this background there is a need for more inclusive approaches in entrepreneurship. In this women's entrepreneurship is analysed context inclusive within the of entrepreneurial ecosystems. The present report is a comprehensive analysis of the degree of inclusivity of key entrepreneurship education and support programs offered by the academic and non-academic partners in the region of Istanbul. In addition, it analyses key elements form entrepreneurial ecosystem, namely, a conducive culture for women entrepreneurship, available financing, the acquisition, and development of human capital through education and training programmes, new markets for products and services, and a range of institutional and infrastructure support systems targeted at women.

This report presents a brief description of regional context the entrepreneurial ecosystem in Istanbul, its key players, and some basic statistics related to the student and entrepreneurial population with а specific focus on female participation. In addition, it uses a qualitative approach emphasising the perceptions of four main stakeholders interviewed, namely a) educators of entrepreneurship at universities, b) program managers at incubators and other units in charge of entrepreneurship within the regional entrepreneurial ecosystem; students/program participants/alumni; and d) other key players in the regional entrepreneurial ecosystem in Istanbul.

Our approach towards understanding female entrepreneurship is holistic and takes an entrepreneurial ecosystem perspective, which in turn is unique. WeRin sees entrepreneurship education as being an entry point into the regional entrepreneurial ecosystem. However, this only happens if HEIs and other parties active in the ecosystem beyond academia such as science parks, incubators and others are connected and collaborate in such a way that graduates know where to turn for

entrepreneurship support after leaving university. For this reason, WeRin includes both parts of the ecosystem and seeks to foster stronger interlinkages and cross-involvements to be included in educational and support program design.

The report reveals that women entrepreneurs who work in male dominated industries face difficulties in proving their technical knowledge. They use their academic and professional background or their market knowledge to prove their expertise.

Further, gender bias is a challenging concept to tap on. We found that there is a strong stereotype in the ecosystem entrepreneurs. 'Courage', towards 'decisiveness'. risk-taking'. 'resilience' emerge as common characteristics, and these are traditionally perceived as male stereotype. This points to an implicit bias rather than explicit bias. Tapping on these issues in all programs will create an awareness of implicit biases we all have.

In addition, our research findings indicated a need for inclusivity going beyond gender. Therefore, bringing in a variety of role models will help change the stereotypes and create diversity across the ecosystem.

The entire team of the ITU GINOVA (TURKEY) is proud to deliver this report for the sake of improving the degree of gender inclusivity in the regional entrepreneurial ecosystem. We feel honoured to have been able to work with different stakeholders in this study and we would like to thank everybody who has enabled us to conduct this study, particularly the respondents in our qualitative study from whom we have received substantial and highly valuable contributions for this regional scan.

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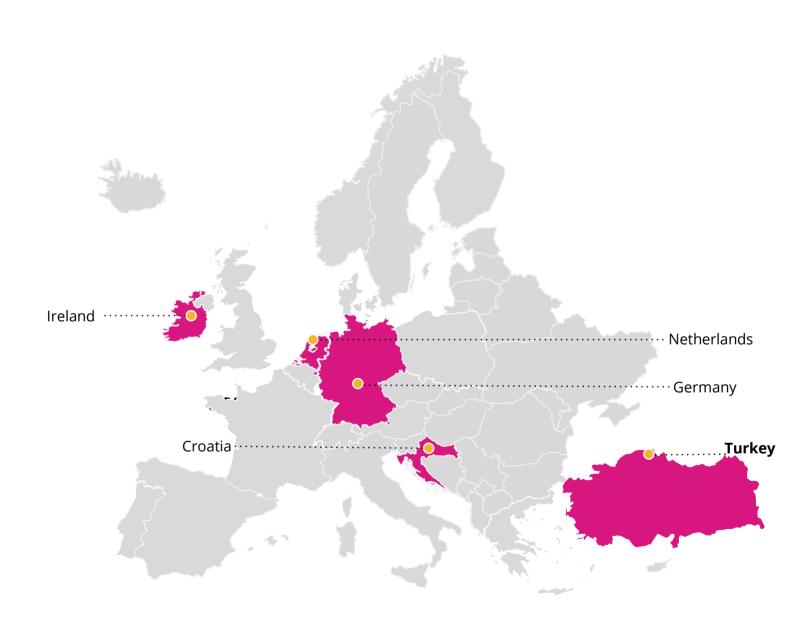
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Turkey

This regional scan report pertains to the Istanbul region of Turkey. Other regional scan reports are available for Ireland, the Netherlands, Germany and Croatia.



Macro Level Entrepreneurship in Turkey

Entrepreneurship in Turkey has become increasingly popular, while many young people plan to start their own business during or right after university, many professionals dream of owning a startup. According to the Turkish Startup Ecosystem report (2020), some notes related to the entrepreneurial issues are as follows:

- Turkey had an official population of 83 million in 2019, with half of that population under the age of 32.4, giving the country the largest youth population in the EU area.
- Turkey is a "Moderate Innovator" and performs relatively well on non-R&D innovation expenditures, SMEs innovating in-house, and SMEs with marketing or organizational innovations. Average annual GDP growth, enterprise births, and total entrepreneurial activity are well above the EU average.

Looking at the main highlights in Turkey's startup ecosystem in 2020, Turkey's entrepreneurial ecosystem has seen unprecedented levels of investment activity in 2020, with a total of \$143M raised – a 35% increase compared to 2019 – by 155 start-ups from various angels and VCs. Key verticals that attracted the most amount of investment in 2020 were Gaming, Retailtech and Fintech; while in terms of the number of deals, SaaS led the way, followed by Fintech and Healthtech.

That said, both 2019 and 2020 saw the rise of gaming start-ups, constituting the largest share of new start-ups that emerged in the past two years. Closing the year with ten new funds, and a reported \$267M dry powder (the largest amount of capital base to date) ready to be deployed in the country and neighboring region, the Turkish ecosystem is attracting foreign capital at staggering rates (Turkish Startup Investment Review, KPMG 2020). Turkish Billion Dollar Club has 5 members (The Startup Ecosystem Quarterly Report - Q2, 2021).

When it comes to female actors, The Startup Ecosystem Quarterly Report – Q1 (2021) has presented the numbers related to Turkey Angel & VC deal activity (see Figure 1) and Turkey angel & VC deal activity with female founders/cofounders (see Figure 2). In terms of deal size, the investments received by female investors remained quite low compared to previous years.

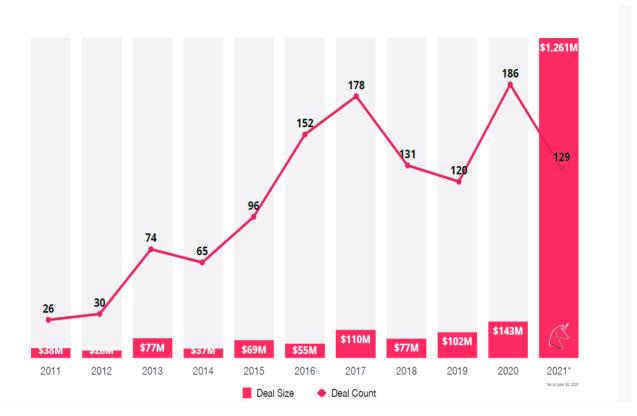


Figure 1. Turkey yearly Angels and VC Deal Activity retrieved from The Startup Ecosystem Quarterly Report – Q1 2021



Figure 2. Turkey yearly Angels and VC Deal Activity with Female Founders/Cofounders retrieved from The Startup Ecosystem Quarterly Report – Q1 2021

Entrepreneurship in Turkey

Global Entrepreneurship Monitoring (GEM), released in 2018/2019, a women entrepreneurship report which analyses data from 59 economies, makes comparisons across regions and looks at longitudinal years starting from 2016. The most important implications from this report are as follows:

- With respect to current employees, women are more likely than men to have larger businesses (20+ employees) in Turkey and 10 other countries.
- With respect to the investment amount, there is no region in which the percentage of women investors exceeds that of men. Women invest median amounts at parity with men in Turkey.
- Globally women are less likely to support work colleagues with investment compared to men but in Turkey women and men invest in work colleagues at the same level.
- With respect to seeing opportunities, the global average of women entrepreneurs who perceived opportunities was 63%. Overall, women were only slightly less likely than men to perceive opportunities (63% to 66.3%) and in Turkey are slightly more likely than men to perceive opportunities.
- Across the 59 economies, Turkey has one of the highest rates (39.2%) of women citing lack of financing leading to business closure.
- Affiliations with entrepreneurs can inspire others to consider entrepreneurship. GEM
 captures the extent to which respondents personally know an entrepreneur. Once again,
 men are more likely worldwide to know an entrepreneur personally at 42.2% compared to
 women at 34.9%. In Turkey, men are twice as likely to know an entrepreneur. This ratio
 indicated the largest gap between men and women.

Istanbul Metropolitan Area

In the last 15 years, Istanbul's economy has experienced a rapid structural transformation. Istanbul is evolving into a modern urban economy with its versatile international networks. Having many innovative sectors, including clusters in knowledge-based and high value-added sectors, it has made the urban economy highly diversified. According to TOBB data, while a total of 118,021 new companies were established in Turkey in 2017, 45,204 companies, corresponding to 38.3% of them, started operating within the provincial borders of Istanbul. Companies established in Istanbul own 60% of the total capital of companies established in Turkey with a capital of 16.7 billion TL (M.Onur Partal, 2019).

According to Turkish Startup Quarterly Report (2021), 49 of the 63 investments made were made in startups in Istanbul and the report also stated that Istanbul has become the 11th city in Europe with the most investments made in the second quarter of 2021.

In a recent report on Istanbul's technology ecosystem (Istanbul Technology Ecosystem Report, 2019) three barriers were listed as follows; access to late-stage investment; access to technical talent and regulations.

When it comes to building a supportive environment for female entrepreneurs, in 2019 Istanbul ranked 48th on the Dell Global women entrepreneurs' cities ranking, meaning women need more support systems. This report is limited as there is no comparison between men and women entrepreneurship, however, it still provides an overall view.

Entrepreneurship Education at HEIs

Istanbul hosts a number of institutes for higher education including Istanbul Technical University (ITU), Sabancı University, Bogaziçi University, Yıldız Technical University (YTU), Koç University and Özyeğin University. These universities are ranked as the most entrepreneurial universities in Istanbul based on their research commercialization activities as well as entrepreneurship support programs (2020 Yılı Üniversite Girişmcilik ve Yenilikçilik Endeksi, 2020). Together these HEI's serve approximately 83,000 students, in a variety of programs in both the Science Technology Engineering Mathematics (STEM) and Social Sciences and Humanities (SSH) domains. This number increases to 100,000 when graduate students are included. Out of this number female students make up 33,000.

Among these universities Özyeğin University has been the first university in Istanbul offering an undergraduate degree in Entrepreneurship. ITU and YTU, on the other hand, both have graduate level entrepreneurship degree programs. The other universities, although not having formal entrepreneurship degrees have included both curricular and extracurricular training. Each of these universities have either a center for Entrepreneurship or their affiliated Incubation centers.

However, there are no entrepreneurship educational initiatives which focused specifically on female entrepreneurship.

Entrepreneurship Support Programs

Entrepreneurship in Istanbul is supported through many private and public initiatives.

The Istanbul Development Agency is a joint organisation of both municipality and Government. It has many funding programs supporting entrepreneurship. Most of these programs are towards building infrastructure such as incubation centers, living labs, co- working spaces. Some examples are:

ITU Cekirdek, the incubation Center of ITU Sciencepark.

Zeministanbul, aims for the widespread and effective use of information and communication technologies. Also, the creation of cooperation networks and value chains for the development, transfer and propagation of technology in order to accelerate Istanbul's transformation into an information society with an information-based economy with highly-skilled employment.

Apart from the **Istanbul Development Agency**, the following are the major players in the Istanbul Entrepreneurship Ecosystem:

The Scientific and Technological Research Council of Turkey (TÜBİTAK): the leading agency for management, funding and conducting research in Turkey. In 2014 it launched an Entrepreneurship support program.

Endeavor Turkey is part of Endeavor US, founded in 2006. It's an association working towards accelerating scale up startups.

GIRVAK is a foundation, established in 2014. Supports university students in their pursuit for entrepreneurship, by nominating them as fellows and supporting their projects.

HABITAT founded in 1997, is an NGO (Non-Governmental Organization) which develops and conducts social impact-oriented and capacity-building projects in coherence with the digitalizing world. Among its projects:

Kiz Kardeşim (My Sister) Project was implemented by the partnership of the Union of Chambers and Commodity Exchanges of Turkey, Habitat Association, Coca-Cola Turkey and Istanbul Technical University in 2018. The project aimed to strengthen women's economic and social status and take an active role in regional economic development. The purpose of the training provided was for women to manage their financial resources and use IT services correctly.

KAGIDER The Women Entrepreneurs Association of Turkey is a non-governmental organization aimed at strengthening women entrepreneurs. Their goal is to support women economically as well as socially and politically.

Entrepreneurship Networks

Istanbul region is home to an abundance of networks and associations for entrepreneurs. The set includes general entrepreneurship networks, as well as those focused on innovation and technology. Among them KAGİDER and TurkishWINN, WTech are female networks, while Arya is a female managed Investor network funding female founders.



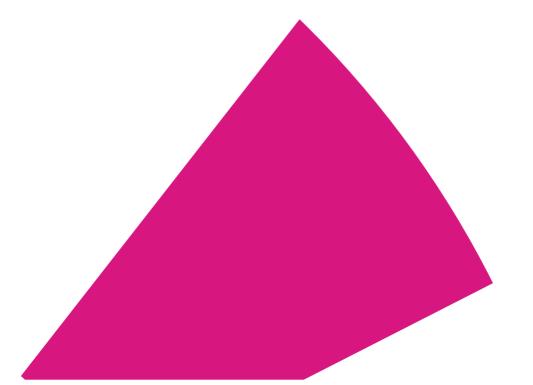
Research Methodology

Convenience sampling was applied, and the respondents were strategically chosen from the aforementioned four target groups (n=44).

Five women entrepreneurs were interviewed. Five educators were interviewed. Twenty-five students and two alumni who were connected to various educational institutions provided interviews. Two program managers and four stakeholders were interviewed. The stakeholders include both policy makers (government and institutional stakeholders) and investors and financiers (financial stakeholders).

Target Group	Numbers	Male	Female
Women Entrepreneurs	5	0	5
Educators	5	4	1
Students*	25	18	5
Alumni	2	0	2
Program Managers	3	0	3
Stakeholders	4	1	3

^{*2} of the students did not want to mention their gender as male or female





Meso Level

Within the meso level analysis, the four stakeholder groups of the ecosystem, namely women entrepreneurs, entrepreneurship educators, entrepreneurship students and alumni, program managers and stakeholders, were investigated by using online semi-structured interviews (n=44) from August to September 2021, average 40 minutes.

In order to discover inclusiveness of regional ecosystem in terms of diverging and converging issues within and between groups with respect to female roles, qualitative techniques were utilised.

The interviews were conducted within the scope of WeRin field research key topics generated from women entrepreneurship literature as well as entrepreneurship ecosystem literature.

The main focus of this regional scan is to reveal perceptions and expectations of four target groups about female roles, the advantages and the obstacles they face within the Istanbul Metropolitan Entrepreneurship ecosystem. Another aspect of this regional scan is to discover female actors, especially female entrepreneurs and students in the area of higher education.

Istanbul - Turkey Regional scan aims to give insights about female entrepreneurship endeavours within the borders of Istanbul, Turkey based on real observations.



Women Entrepreneurs

Our sample consists of five women entrepreneurs. Four out of five female entrepreneurs are around 30 years old on average and started their careers in the field of entrepreneurship and continue in this way. One entrepreneur was over 50 years old. After she retired from the public sector, she started a venture with her daughter, following her daughter's desire to start her own business. All of them have technical backgrounds in relation to respective industries, and all of them have at least a bachelor degree from reputable universities.

When it comes to the aim of starting their own business, in general, all of them stated that they became entrepreneurs with the desire to have a job, be independent, and they have acted with intrinsic motivation. Another prominent aim is to create value and provide sustainable products and services that are environmentally friendly to society in their industries.

The desire to succeed and to overcome challenges, and their belief in themselves form the basis of their motivation. Their high self-confidence is at the forefront.

E-ship Educators

Female entrepreneurs generally have strong academic background in their fields, but they did not take any academic course in entrepreneurship. When they decided to start their own business, they also started to look for the programs supporting entrepreneurs. It was in these programs they had training.

Role Models

Women entrepreneurs tend to relate themselves to successful women entrepreneurs or consider successful women in their field as role models. They generally named the women entrepreneurs they want to be like and the women entrepreneurs who support them in their entrepreneurial journeys. Getting support from successful female entrepreneurs is seen as very valuable and inspiring by women entrepreneurs. The presence of these role models increases their belief in their ability to manage this entrepreneurial challenge.

"Actually, I didn't have a role model at first, it is just recent. She is the first biopesticide founder in the USA, which I follow closely. She is co-founder with her spouse, and by the way we are partners with my spouse too. They have a very good vision and provide both investment and mentorship to small startups." (FEO5)

Self-efficacy

Generally female entrepreneurs had strong selfconfidence when they started out as entrepreneurs. As they have strong technical knowledge in the fields, they really and inherently want to achieve their aims. Coping with challenges and overcoming difficulties made them more determined and increased their faith in themselves "I am not afraid of failure. My confidence is increasing everyday." (FE01)

"Personally, I am a person who likes hardship and gets ambitious facing challenges. Whenever an obstacle comes my way, I try to find ways to overcome it. It was the difficulties I faced that developed me the most." (FEO5)

Nevertheless, one of the female entrepreneurs mentioned that she sometimes found herself in negative situations about her personal image in her industry. For example, sometimes she enjoys putting on artificial nails but because she is in a male dominant field, she is expected to exhibit stereotypical male characteristics. Although she does not have any problem with her female image, she makes changes on how she looks in order not to create a negative first impression.

"The energy sector is 99 percent male, there are almost no women in production. In the early years, when I went to a place and talked, I was ignored. I was still a student when I started out, but now I have a PhD degree in the field. This has changed people's behavior towards me a lot. I am much more self-confident now." (FEO4)

Social Norms

The majority of women entrepreneurs stressed that they didn't see any disadvantage of being a woman. In fact, they have noticed some advantages in some situations. They mentioned that this depends on specific conditions. In a situation where a woman makes a presentation, they are more capable in communication skills. But there could be some other situations where there are more advantages for males.

In male dominant industries like automotive or energy, being a young woman can cause some disadvantages initially but these are not mentioned as insurmountable. Nowadays, being a female in male dominant areas is considered valuable, using the token advantage.

Male-female (diversified) co-founded teams are seen as very useful and advantageous.

"In my opinion, I think it is important to include one woman and one man into the founder team. For example, I don't think we would have gotten such good results if my partner had gone to the interviews as a man. I think women are perceived as more sympathetic and this makes the atmosphere more affectionate." (FEO2)

Social Role Theory

Female entrepreneurs report that they rarely perceive biases towards them. They do not see this situation as a general problem.

When it comes to funding, some industries present disadvantages for women. Since these industries generally require technical knowledge, people think that only men can have an interest or knowledge. Thus, being a woman may sometimes be associated with having less knowledge in technical areas.

In the case of investment negotiations, on the contrary, our respondents believed that there is no difference between being a man or a woman. The differentiating point is having knowledge, ability and capability.

Networks

Generally, networks are heavily developed and used by female entrepreneurs with a focus on business industries. Most of the women are eager to utilise networks that they acquire. Main sources of these networks are entrepreneurship support programs, events they attend, and the customer networks they develop.

Women entrepreneurs give utmost importance to developing business relations, building networks and participating in business events, entrepreneurship competitions and events held by local and international networks known in their field. They believe that these networks and organizations contribute to their recognition.

Among the obstacles faced by female entrepreneurs in the ecosystem, legislative and bureaucratic procedures take the lead. They also report facing some obstacles in government support programs in terms of payment processes, but this is not particular to gender.



Entrepreneurship Educators

The profile of entrepreneurship educators in the Istanbul region is generally male dominant. We conducted in-depth interviews with four male educators and one female educator. All educators are academic-oriented and define themselves as an educator in the entrepreneurship field primarily. They do not see this role accompanying another major role. All educators stated that they have been providing entrepreneurship education for many years and are actively present in the Turkish entrepreneurship field.

The educators commonly stated that the percentage of women and men who participate in entrepreneurship programs or who attend entrepreneurship courses when mandatory is approximately equal. But when it comes to elective courses, male students show more interest in entrepreneurship courses than their female counterparts. This intention is much higher especially in engineering programs.

Role Models

All educators mentioned that giving examples during the courses or inviting successful entrepreneurs into the course helps students to gain motivation and a better understanding about the dynamics of entrepreneurship. These role models share real life challenges and ways to cope. The majority of the educators stressed the importance of similarity between the guests and students so that they can identify with them and gain more encouragement.

"I usually like to give examples of entrepreneurs who have been here recently (people who have gone through the same paths as students) instead of using role models like Steve Jobs in the examples I use in class." (EE 03)

However, when we look at the examples given as role models for entrepreneurship, obviously most of them are male. Only one educator stated a female example.

All educators are aware of the reality of male dominance in the ecosystem but they think that there is no difference regarding this perception among other European countries too.

"When we look at the numbers alone, I know that we are not that different from Europe in terms of female entrepreneurship ratios." (EE05)

One educator underlined the value of presenting unsuccessful or failed ideas of entrepreneurs who are today recognised as successful. He emphasized that failure examples also help to relate students with these successful entrepreneurs.

Another attempt to encourage students is taking into account the diversity when choosing role models in terms of age, background, sector, etc.

No participant stated any effort in terms of inviting specifically female entrepreneurs or representatives of any other minority group to the courses. On the other hand, the majority of the educators underlie that they take place in female focus projects or activities and they really try to find female examples of such activities.

"I also want to emphasize that there is not just one method, there are slightly different ways. For example, X was a person who started his career in corporate life, he was not related to these issues during his university education, then he did a side job as well as his corporate job. Later, he took this side business to the consultancy dimension and later became an entrepreneur." (EEO3)

Social Role Theory

Entrepreneurship courses are mostly conducted under the responsibility of Business and Administration or Management faculties. Not only business students, but all can attend these courses during the related term. All educators stated that all students having an interest in entrepreneurship are suitable for the courses. They did not reveal anything about gender issues but one of the educators stated that he has seen very few disabled people in his class.

"You ask about under representation, an interesting point is that there are very few disabled individuals. There was a visually impaired female and a hearing impaired male. There is no disability representation in the courses." (EE01)

One educator stated he wants a letter of purpose from students for elective courses. By doing so, he aims to understand whether they chose the course consciously or randomly.

When it comes to characteristics that a student needs to have to be successful as an entrepreneur, most of the educators mentioned that being courageous is very important. In addition, those who can produce something new, see a solution instead of a problem, have a dream, have a vision and are highly motivated can be successful.

Self-efficacy

The most frequently asserted obstacles that the entrepreneurs face in the ecosystem are micro level funding scarcity (early funding, risk taking, angel investors), legal legislations, entrepreneurship oriented education deficiency, inability to form a diversified entrepreneurial team, the prejudices about the definition of success in the ecosystem.

Educators relate the problem of micro level funding scarcity to the existence of a one-way definition of success in the ecosystem. Since most common examples of successful entrepreneurs are the ones who offer market oriented e-commerce related solutions, the angel investors in the ecosystem try to find entrepreneurs fitting these common examples.

"Although there are very good projects in Turkey, they cannot be scaled across the country. These projects need to go abroad and money is needed for that. It requires high marketing budgets, which brings us back to the funding problem. We should add: is everyone looking for unicorns? We have to admit that not all will be unicorns, but there is a serious potential group of companies, however there are no portfolio investors who have positioned their risk appetite accordingly to fund them." (EE01)

Most of the educators also stated that male students are more likely to share their relatively new ideas than their female counterparts. They think that female students share their ideas only after they make some progress on the idea.

Social Norms

All educators stated that they have never encountered any discrimination relating to ethnicity or gender in their class. One of the educators mentioned that making positive discrimination on female entrepreneurs can sometimes result in negative reactions from females.

Social safety

Courses in university programs include equal numbers in terms of male/female ratios. It is seen that ethnic representation is low. All groups are equally seen and heard within the classroom. In fact, female students hold some advantages because educators think that they should support females because male entrepreneurs outnumber female entrepreneurs. The perception that they are few and that women should be supported prove to be an advantage for women who have taken a step towards being entrepreneurs.

Networks

Female networks are present and active. Educators in entrepreneurship know the female actors in the ecosystem. They recommend potential entrepreneurs and networks that can benefit them. Students are also encouraged to join networks by inviting entrepreneurs to the classroom.

Conclusion

Educators are generally aware of gender imbalance in the ecosystem. The educators themselves support females but this is not included in courses in a structured way.



Students and Alumni

Students/Alumni need more motivational and guiding support in order to access resources and overcome early-stage obstacles. The majority of students/alumni are presently in the very early stage of their entrepreneurship journey. On the one hand they are young and ambitious, but on the other hand they have little experience. They need guidance into the ecosystem in a field that they can really manage.

"There should be more programs that support young people who want to be innovative. These programs should be kept separate and these young people should be able to progress."

Role Models

Most students named one of Turkey's billion dollar club entrepreneurial ventures which recently became popular and successful with its rapid development during the Covid-19 pandemic. On the contrary, alumni named the entrepreneurs they have met as role models.

In general, the description of the typical entrepreneur is related to traditionally accepted male characteristics such as "risk- taking", "courageous" "opportunity seeking". Consequently, when it is asked to give an example that fits a typical entrepreneur, students/alumni named mostly male entrepreneurs.

Similarly, it is observed that in the courses in which students participate, the most common examples of entrepreneurs generally are from very successful, well-known local or global male entrepreneurs.

According to students/alumni, the courses they participate in are suitable for anyone who is young, curious and wants to be an entrepreneur or start his/her own business.

Social Role Theory

The students are asked to name among their classmates who can become a successful entrepreneur and the reasons behind their guess. Rather than giving a name, most of the students define particular characteristics such as having technical knowledge on her/his area of interest and being highly motivated. The majority of students/alumni believed that there is a balance between male and female students in the courses. Women are also supported and courses. encouraged in the students/alumni stated that there are no elements that draw attention to gender differences in entrepreneurship course content.

"I didn't feel anything like that as a general perception."

"There is nothing in particular that comes to mind. But I have to admit with embarrassment that being a woman entrepreneur in Turkey is more difficult due to social barriers."

Social Safety

Students in the programs are ready to work with people of different gender, social class and ethnicity. There is no perception concerning under represented social groups in the programs and courses.

Self-efficacy

Entrepreneurship courses motivate students/alumni to increase their self-confidence and their belief in achievement.

"I learned that I had to base the ideas in my mind on more solid foundations. Thanks to this program, I had the opportunity to see the shortcomings of my ideas. In addition to this, the program helped me a lot in developing solutions. All this led to a positive increase in my self-confidence."

Networks

Most students/alumni are aware of the importance of networking. Courses and programs really help students/alumni to make valuable and influential new connections. Students/alumni tend to use new connections only when they need to. They use LinkedIn and email in order to keep in touch with their connections.

Students/Alumni state that in courses and programs networking is highlighted. The existence and role of support organisations (Chamber of commerce, banks, sectoral organizations, etc.) that can help entrepreneurs are discussed in the courses. But when it comes to taking support from these kind of organizations, young people may have some disadvantages.



Program Managers and Stakeholders

In general, entrepreneurship ecosystems provide equal access and participation for all participants. In some organizations, female entrepreneurs and also young entrepreneurs have advantages over their male counterparts.

"Our aim is to support Istanbul to become an entrepreneurship hub. Also, we try to build a bridge between young adults and the business world. We have a Council composed of university students, working on policy making, making projects about their own problems." (PMS04)

"When selecting, we don't have a formula. We naturally would like to have female entrepreneurs, and when it is a woman, they differentiate among other candidates and we try to include them in our programs right away." PMS06

Social Role Theory

"Entrepreneurs need to be persistent and resilient" (PMS04)

"They need to be risk takers, optimists. They need to have both analytical and social skills." (PMS06)

Program managers and stakeholders do not mention underrepresentation of any group. One of them mentioned inclusion of disabled people in the programs.

Self-efficacy

"The main barrier is lack of investors. Although this is general for both genders, the investors would like to see more decisiveness. Women at times may exhibit more emotions. This might be affecting investor decisions. This would not be the case in investor networks but in individual investors. They may have the idea that they can grow faster with male entrepreneurs" (PMSO4)

Attitude

Program managers and stakeholders haven't seen or experienced any bias toward females or any ethnical group.

"I believe it doesn't exist" (PMS04)

Some of program managers and stakeholders stated that being a female entrepreneur may even be an advantage.

"If all things are equal, I can even say we use positive discrimination especially in technology based startup programs as the number of female students are much lower in engineering. In fact, being a woman, at times can be advantageous." (PMS06)

Social Norms

Within the acceleration programs, entrepreneurs share norms such as supporting one another. Being on the same journey together and growing together are the norms program managers want to support.

Program managers and stakeholders indicated that Turkish traditional families have established expectations from their children and this expectation depends on their gender, their university education and also their career path.

"Being a woman in Turkey is difficult because gender roles are traditional and women have more responsibilities at home, and so it is difficult to have work life balance. They have to deal with having children, marriage, which naturally slows work life'. 'Further, there are, also, women who are not in the work life at all, let alone be an entrepreneur." (PMS04)

Networking

Program managers and stakeholders generally give attention to networking. They provide diversified networks to entrepreneurs. Program managers and stakeholders stressed Incubation Centers, VC networks, VC events as important networking opportunities.

"Mentors offer direct advice on who to talk to"(PMS04)

"Science parks: ITU Arı Science park, Yıldız Technical University Science park, Kollektif House, Webrazzi, a digital platform,etohum"(PMS0)

Conclusion

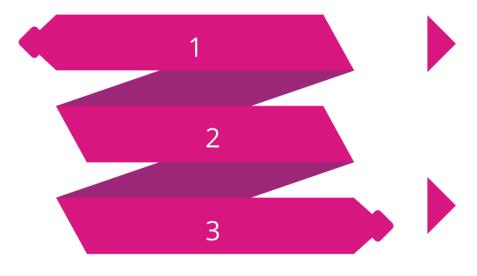
- Our research has few limitations, one being the methodology. As we have used a convenience sampling, we selected mainly those who are already in an entrepreneurship program or have chosen the path to become an entrepreneur. This creates a limitation to gain insight from those who have opted out in their early years or have failed in their journey and we haven't come across.
- Having stated this, we, still, have gained some valuable insights. Women entrepreneurs who work in male dominated industries face more difficulties in proving their technical knowledge than women who are in more female industries. They use their education and/or market knowledge to prove their authority, and once they can establish their authority, their gender can even become an advantage as they stand out in these male dominated fields.
- When we look at the number of students represented in departments, there is a parallel finding. In engineering universities, the ratio of female to male is almost 1/3. While this number becomes almost equal in universities offering business or social sciences programs. Entrepreneurship courses in technical universities mirror this general ratio, whereas in other general education universities the number balances itself.
- Bias is a challenging concept to tap into. We have experienced this in our interviews. When asked directly, our respondents did not mention any bias. This was true both for woman entrepreneurs and aspiring woman entrepreneurs. In addition, other actors in the ecosystem echoed this and further claimed that it can even be an advantage stemming from the token effect. Yet, when we read between the lines, there are strong stereotypes in the ecosystem towards entrepreneurs. When asked about the characteristics, 'courage', 'decisiveness', risk-taking', 'resilience' came out as common, and according to literature these are perceived as male characteristics. This points to an implicit bias rather than explicit bias, which is much more challenging to understand. Further, social norms around the work life of women was not openly discussed, except for one stakeholder who pointed this out as a major barrier. Statistically, Turkish women work until they get married or until they have their first child, and this, in general, leads to a high number of stay-at-home women. Entrepreneurship may be a way to overcome this, but we don't see the numbers going higher, yet.
- As bias is not open, it is not discussed in any of the contexts, be it in a classroom, or in an acceleration program. Only one educator, being a woman and having a PhD in management where she studied gender, said she discusses this matter in her classes. Other than this outlier, where role models are always white, male and growth oriented, respondents did not perceive this as a problem.

Conclusion

- Istanbul entrepreneurship ecosystem is, relatively young. Barriers stemming from structural inefficiencies may be more challenging than gender itself. Funding problems and access to investment has been underlined across our categories of respondents. We must mention that Turkish Entrepreneurship Ecosystem has a very strong state presence, as government has many funding programs at national as well as local levels trying to overcome, the low investment and access to finance challenges.
- Being a young ecosystem, the players have been in the ecosystem for about 10 years, and this results in a close-knit circle. Science parks and Incubation Centers are perceived as strong actors and this is an advantage, that once an aspiring entrepreneur enters these hubs they have access to many networks. As the focus of the governmental funding has been on technology entrepreneurship, we have less knowledge about social entrepreneurs who are outside of the technology entrepreneurship ecosystem. Social entrepreneurship seems to have a different ecosystem, led by NGOs.

Recommendations

Talk about gender: All actors in the ecosystem will benefit from more discussion on the inequalities and stereotypes in entrepreneurship.



Balanced ecosystem

Developing a more balanced ecosystem of entrepreneurship: The divisions of having only technology startups lead to further discrimination.

Talking about implicit biases

Making bias open: Tapping into these issues in all programs will create an awareness of implicit biases we all have.



Bringing in a variety of role models will increase diversity.

References

- Dell's 2019 Women Entrepreneur Cities Index, (2019, 2017) retrieved on 3-10-2021 from https://www.dell.com/learn/us/en/id/corpcomm_docs/dell-we-cities-2019-executive-summary.pdf
- Global Entrepreneurship Monitor. (2019). Women's entrepreneurship Report 2018/2019 global report
- Istanbul Technology Ecosystem Map (2019) retrieved on 3-10-2021 from
 https://www.istka.org.tr/media/132457/%C4%B0stanbul-teknoloji-ekosistemi-haritas%C4%B1.pdf
- Partal, M. O. (2019). Journal of Marmara life retrieved on 3-10-2021 from https://marmaralife.com/2019/06/26/istanbulun-girisimcilik-ekosistemine-genel-bakis/
- The Startup Ecosystem Quarterly Report Q2 2021. (2021)
- The State of Turkish Ecosystem. (2020) retrieved on 3-10-2021 from https://www.invest.gov.tr/en/library/publications/lists/investpublications/the-state-of-turkish-startup-ecosystem.pdf
- Tubitak. (2020). 2020 Yılı Girişimci ve Yenilikçi Üniversite Endeksi retrieved on 06-10-2021 from https://tubitak.gov.tr/sites/default/files/18842/2020-gyue-2020-print.pdf

