




The Entrepreneurial Ecosystem as a Success Factor for Startups -The Turkish Experience as a Model-

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Abstract:

This study aims to shed light on the entrepreneurial ecosystem and its contribution to startups success, as well as presenting the Turkish experience in this field. To achieve these objectives, a combination of three methods has been used: the descriptive and analytical method, the case study method, and the comparative method. The study reached a set of results, the most important, is that the entrepreneurial ecosystem is the platform that supports the creation and the growth of startups, through its contribution in creating opportunities and providing an appropriate environment that helps entrepreneurs launching their startups; and that the Turkish entrepreneurial ecosystem reached a new level, due to the efforts of both public and private sectors, in providing a suitable environment for the activity of startups.

Keywords: Entrepreneurship, Entrepreneurial Ecosystem, Startups, Turkey.

Jel Classification codes : L26, M13.

Introduction :

Entrepreneurship and the creation of startups have become a crucial objective for economic development, where countries seek to achieve sustainable development by encouraging individuals, especially the youth, to embody their innovative entrepreneurial ideas in startups. As many studies have proven that the existence of an innovative idea applicable in practice is a decisive factor for startups success.

But in fact, although the successful international experiences of startups had started from innovative entrepreneurial ideas, but the provision of an appropriate entrepreneurial ecosystem had a great impact on the success of startups, because these latter are like other organizations, don't work in isolation from the environment, but rather they are open systems, affecting and being affected by the environment.

The issue of entrepreneurial ecosystem for startups is one of the newly emerging topics, it has been spread in the world after the success of the famous experience of "Silicon Valley" in the United States of America. After that, other experiences appeared and focused on developing the entrepreneurial ecosystem as a success factor for startups. By reviewing the international experiences in this field, the Turkish experience stands out, as Turkey sought to develop its entrepreneurial ecosystem, and due to its unremitting efforts made in this field, it was able to achieve the success of startups.

- Study problematic :

From the above, we pose the following problematic:

How does the entrepreneurial ecosystem contribute to the success of startups in general, and to the success of Turkish startups in particular?

- Study hypotheses:

In order to answer the problematic, we suggest the following hypotheses:

- **Hypothesis 1:** The entrepreneurial ecosystem is considered as a success factor for startups, because it contributes to providing entrepreneurial opportunities as well as ensuring a suitable climate for the activity of startups;
- **Hypothesis 2:** The Turkish entrepreneurial ecosystem is characterized by a set of supportive factors that have contributed to the success of Turkish startups.

- **Study objectives:**

This study aims to:

- Clarify the concept of “entrepreneurial ecosystem”, its emergence and its components;
- Expose the importance of the entrepreneurial ecosystem in startups success;
- Diagnosis the reality of the Turkish entrepreneurial ecosystem ;
- Demonstrate the success factors of the Turkish startups within the framework of the Turkish entrepreneurial ecosystem.

- **The importance of the study:**

This study gains its importance from the importance of startups, which are a tool to achieve the economic development and a way to boost economies.

Therefore, appropriate conditions must be provided to facilitate startups activity and to ensure their success, especially by focusing on the entrepreneurial ecosystem, which is a decisive factor for success.

- **Methodology used in the study:**

To achieve the objectives of this study, three methods were used: the descriptive and analytical method, the case study method, and the comparative method.

We relied on the descriptive and analytical method in presenting and describing information related to the entrepreneurial ecosystem and its components, and analyzing its effects on startups success, and then reaching results. We relied also on the case study method to study the reality of the entrepreneurial ecosystem in Turkey.

In addition, we used the comparative method in comparing the developments of the Turkish entrepreneurial ecosystem between different periods, according to the efforts made in this field.

- **The previous studies:**

The entrepreneurial ecosystem has carried increasing weight in the field of entrepreneurship, as there are many studies that dealt with this issue, among them we mention: the studies of Isenberg, D.J (2010, 2011), “How to Start an Entrepreneurial Revolution” and “The Entrepreneurship Ecosystem Strategy as a New Paradigm for

Economic Policy: Principles for Cultivating Entrepreneurship”, and the study of Mason & Brown(2014), “Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship”; these studies are considered as a reference in this field.

In addition, we mention also the following studies:

- The study of Theodoraki, C., & Messeghem, K. (2017). “Exploring the Entrepreneurial Ecosystem in the field of Entrepreneurial Support: a Multi-level Approach”, this study investigated how different ecosystems and sub-ecosystems are related in the field of entrepreneurship through a multi-level approach, and via an explorative qualitative study. The results of the study emphasized the need to study the interaction between the sub-ecosystems, as a key to a better understand of the success of the entrepreneurship ecosystem.
- The study of Meero, A., Habeeb, U., & Abdul Aziz, A. (2020). “The Prospects of Bahrain’s Entrepreneurial Ecosystem: An Exploratory Approach”: this study shed light on the attractiveness of the Bahraini entrepreneurial ecosystem, and how the Bahraini economy encourages startups. The study concluded that the most important factors that contribute to startups success are Bahrain government's support system, effective public institutions and society encouragement. The study also suggested solutions to avoid the factors of failure of startups.
- The study of KOURAICHE, N. (2018). “Le rôle de l’écosystème de l’accompagnement entrepreneurial dans la promotion de l’entrepreneuriat en Algérie” (2018): This study focused on the role of the ecosystem of entrepreneurial support in the promotion of entrepreneurial activity in Algeria. The study reached a set of results, the most important is that the actors of the entrepreneurial ecosystem of support played a positive role in the promotion of entrepreneurial activity in Algeria, but the real dynamism of entrepreneurship still needs to be perfected.

These studies, in addition to others, have helped us to determine the theoretical framework of the entrepreneurial ecosystem.

Unlike the previous studies, our study is a comprehensive study of the most important literature on the entrepreneurial ecosystem and its contribution to startups success; it also

sheds light on one of the successful international experiences in this field, which is the Turkish experience.

- **Structure of the study:**

This study is structured in two parts. In the First, we present a theoretical review about the entrepreneurial ecosystem and startups success. Then, in the second part, we shed light on the Turkish entrepreneurial ecosystem and startups growth, by focusing on the procedures taken to support startups and the supporting actors that have contributed to the success of Turkish startups.

Finally, we conclude our study with a set of the results and recommendations.

1. A theoretical review about entrepreneurial ecosystem and startups success:

In this part, we will present an overview about the emergence of the entrepreneurial ecosystem concept, clarify its definition, identify its Components and explain the startups success within the entrepreneurial ecosystem.

1.1. An overview about the emergence of the entrepreneurial ecosystem concept:

Entrepreneurial ecosystem is a concept developed by researchers to describe an entrepreneurial act and whether it is influenced by favorable or unfavorable environmental conditions in a country (EL ZAITOUNI & MAANINOU, 2020, p. 703).

Originally, the term of ecosystem is used in biology; it was formulated by the English botanist George Tansley in 1935. It represents a system formed by an environment and all the species that live there. Tansley's researchs aim to better understand the functioning processes of ecosystems based on the exchanges between living organisms and the environment (Kouraiche, 2018, p. 80).

In fact, the application of the term ecosystem in entrepreneurial activity has been linked with the famous experience of "Silicon Valley" in California: the area with the greatest competitive advantage in the world. This area was built due to the efforts made by a combination of entrepreneurs from the technological area, universities, and venture capitalists, in generating pioneering companies, through creating a program of incentives

and financing graduates of Stanford, which later became an industrial park in the fifties and sixties of the last century.

Five decades after, this ecosystem has been growing and configuring a physical space and business in which companies such as Intel, Cisco, Apple and, more recently, Google, eBay, and Facebook have been deployed (Gonzalez Flores & Katonáné Kovács, 2018, p. 300)

However, entrepreneurship ecosystem research emerged only in the eighties of the last century, where the term was used for the first time by Valdez (1988) in his article entitled “The entrepreneurial ecosystem: toward a theory of new firm formation”, in order to explain the phenomenon of start-ups which can be defined as the result of the relationships of potential entrepreneurs, their immediate environment and current market conditions (Kouraiche, 2018, p. 80).

This term was also used by James Moore (1993) in an article published in Harvard Business Review, where he claimed that businesses don’t develop in a vacuum, and he noted the relationally embedded nature of how firms interact with suppliers, customers and financiers (Mason & Brown, 2013, p. 5).

Actually, the entrepreneurial ecosystem carries increasing weight in the field of entrepreneurship, where the researcher’s interest in this topic has increased.

1.2. Definition of entrepreneurial ecosystem:

By reviewing the entrepreneurial literature, various definitions of entrepreneurial ecosystem have been proposed by researchers.

Moore (1993) defined the entrepreneurial ecosystem as “a space of interconnection and mutual dependence between economic agents, whose collective health was essential for the success and survival of organizations” (Gonzalez Flores & Katonáné Kovács, 2018, p. 300).

According to (Isenberg D. J., 2010, p. 3), entrepreneurship ecosystem is “a set of individual elements (such as leadership, culture, capital markets, and customers) that combine in complex ways”.

(Mason & Brown, 2013, p. 5) showed that entrepreneurial ecosystem is “a set of interconnected entrepreneurial actors (potential and existing), entrepreneurial organizations (e.g. firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies), entrepreneurial processes (e.g. numbers of high growth firms, number of serial entrepreneurs and levels of entrepreneurial ambition), which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment”.

Through this definition, we notice that the entrepreneurial ecosystem is an interaction of three main elements: entrepreneurial organizations, institutions and entrepreneurial processes.

Stam and Spigel (2018) defined the entrepreneurial ecosystem as “a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship within a particular territory” (Gonzalez Flores & Katonáné Kovács, 2018, p. 301).

The entrepreneurial ecosystem was also be defined as “a strong and dynamic agglomeration composed of interconnected, interacting and influencing each other (e.g. regulatory, individual, organizational, institutional) that commercialize, facilitate, act and promote opportunities and entrepreneurial activities” (EL ZAITOUNI & MAANINOU, 2020, p. 707).

Through the previous definitions, we note that researchers differ in defining the concept of entrepreneurial ecosystem and its components, but they agreed that it is consisting of a set of elements that interact each with other to achieve a major goal, which is the success of organizations including startups.

1.3. The components of entrepreneurial ecosystem:

Several models of the components of the entrepreneurial ecosystem have been proposed, the most famous, is the model of (Isenberg D. , 2011, p. 6), which is composed of six domains: conducive policy, markets, human capital, culture, supports and finance, each of these domains is made up of sub-domains.

However, (The World Economic Forum, 2014, p. 7) presented the components of the entrepreneurial ecosystem in eight pillars: accessible markets, funding & finance, government & regulatory framework, major universities as catalysts, human capital or workforce, support systems or mentors, education & training and cultural support.

Entrepreneurs consider that among these pillars, accessible markets, human capital or workforce and funding & finance are of pivotal importance in the entrepreneurial ecosystem, while they consider government and regulatory policies as both potential growth accelerators and growth inhibitors.

From another side, Koltai (2016) suggested an entrepreneurial ecosystem model comprised of six pillars and six types of actors. The six pillars are: identify, train, connect & sustain, fund, enable and celebrate entrepreneurs, and the six types of actors are government, academia, non-governmental organizations, foundations, investors, and corporations.

Koltai indicated the necessity to develop each of these pillars and types of actors, to increase the quantity and quality of high-growth, job-creating startups (Jafarov & Judit , 2022, pp. 9-10).

Another entrepreneurial ecosystem model, is the one developed by Stam and Van de Ven (2021), which is considered as the most structured and developed model compared to the other models; this model is based on a social system framework and it is comprised of three main components: (Jafarov & Judit , 2022, pp. 12-13).

- The institutional arrangements, which include three pillars: formal institutions, culture, and network element;
- Resource endowment elements of the infrastructure, which is comprised of seven elements: the physical infrastructure, demand, intermediaries, talent, knowledge, leadership and finance;
- Entrepreneurial outputs.

From the above models, we notice that there is no consensus of researchers on the components of the entrepreneurial ecosystem. Accordingly, it can be said that the

entrepreneurial ecosystem must include all means that support the success of entrepreneurial work and startups, according to the specificities of each environment.

In this regard, (The World Economic Forum, 2014, p. 4) indicate that there are major differences between entrepreneurial ecosystems from one country to another and from one region to another, especially according to the degree of importance that governments grant them.

1.4. The entrepreneurial ecosystem and the success of startups:

The literature has investigated the success factors for startups, an appropriate entrepreneurial ecosystem is one of these main factors.

Although many successful startups were launched by innovative entrepreneurs, they received support, either directly or indirectly, from governments that have contributed to create ecosystems that support entrepreneurship (Isenberg D. J., 2010, p. 3).

(Theodoraki & Messeghem, 2017, p. 61) Found that the entrepreneurial ecosystem is a generic concept, which aims to promote entrepreneurship in a specific area through a macro-level analysis, while (Isenberg D. J., 2010, p. 3) mentioned that “to ignite venture creation and growth, governments need to create an ecosystem that sustains entrepreneurs. Here’s what really works”.

Therefore, the entrepreneurial ecosystem is considered as the support platform of creation and growth of startups (Gonzalez Flores & Katonáné Kovács, 2018, p. 300), it provides an excellent environment to overcome the challenges faced by startups, and contributes to creating opportunities and attracting national and foreign entrepreneurs to launch startups, by increasing the opportunities in the markets and mitigating challenges and obstacles facing entrepreneurship (Meero et al., 2020, p. 402).

According to Spigel (2020), entrepreneurial ecosystems provide two things for entrepreneurs: (Jafarov & Judit , 2022, p. 5)

- Entrepreneurial resources such as funding, skilled workforce, and entrepreneurial knowledge available to use by entrepreneurs ;
- An environment where the resources mentioned above are accessible.

2. The Turkish entrepreneurial ecosystem and startups growth:

Turkey is a dynamic and growing economy that supports startups by focusing on the entrepreneurship ecosystem reforms.

Two decades after the foundation of the Turkish entrepreneurial ecosystem, it has taken off, taking strong steps to become a key regional hub for entrepreneurship, due to the efforts deployed in supporting it (DEİK, 2022, p. 15).

In the following, we present an overview of the Turkish entrepreneurial ecosystem, paying particular attention to the procedures taken to support startups, and supporting actors that have contributed to the success of Turkish startups.

2.1. Supportive procedures for the Turkish entrepreneurial ecosystem:

In the recent years, due to both public and private support, the Turkish entrepreneurial ecosystem has witnessed a significant boost (Expatia Investment consulting, 2020).

The Turkish public sector recognizes the importance of startups as economic engines; therefore, policies and programs have been taken to support the entrepreneurial ecosystems (StartupBlink, 2022, p. 187).

In the table below, we present the most important procedures taken by the Turkish government in supporting the entrepreneurial environment from 2012 to 2022:

Table 01. Turkish government's procedures in supporting the entrepreneurial ecosystem (2012-2022)

year	Procedures	Designation
2012	Grant Program for Startups at Idea Stage	TUBITAK BIGG grant program started to support entrepreneurs in idea stage
2013	Accreditation of Angel Investors	Ministry of Treasury and Finance started to give certificates to angel investor
	Mentorship Program Support	Development and Implementation of Mentoring Mechanism.
	Supporting Entrepreneurship Courses	Supporting Entrepreneurship Certificate Programs in Universities
2014	Venture Capital Investment Funds	A communiqué was published that make it advantageous to found a Venture capital fund in Turkey
	Supporting Technology Funds	Technology Transfer Accelerator Turkey Project is co-financed by the European Union and Turkey under the Instrument for Pre-Accession Assistance funds and managed by European Investment Fund on behalf of the Ministry

2015	Supporting Accelerators	The Scientific and Technological Research Council of Turkey launched supporting accelerators for screening and acceleration of startups at idea stage for 1512 program
2016	Supporting Growth Funds	The foundation of Turkish Growth and Innovation Fund (TGIF)
	Supporting International Accelerators	Small and Medium Industry Development Organization (KOSGEB) started supporting accelerators abroad for the benefit of startups that want to globalize
2018	Venture Capital Funding Program	Ministry of Treasury and Finance and Technology Transfer Offices supported by the Scientific and Technological Research Council of Turkey (TUBITAK) launched a Venture Capital funding program
2019	Grant for Development of Startups	Entrepreneurship Development Support Program (KOSGEB)
	Technology Development Center (TEKMER) Support Program	a change was made regarding the opening of TEKMERs to increase the technology centers
	Equity Based Crowdfunding	Communiqué on Equity Crowdfunding by the Capital Markets Board of Turkey (First platform launched in 2021)
2020	Two new funds and One Fund of Funds (FoF)	Development and Investment Bank of Turkey launched Regional Development Fund and Technology and Innovation Fund (FoF + Fund)
	Regional Venture Capital	Istanbul Development Agency program
	Vertical Capital Income Fund Changes	Major changes were made in the Communiqué according to sector demands
2021	Requirement to invest in Vertical Capital Income Funds	Companies that exceed a certain scale in Technoparks and companies that have benefited from R&D and design grants were required to invest in Vertical Capital Income Fund
	Debt-Based Crowdfunding	Principles for debt-based crowdfunding published
2022	Turququality Program	Support program to increase internationalization and exports of startups.

Source: prepared by the researcher based on (Startups Watch, 2022, pp. 8-9)

From the above table, we note that since 2012, the Turkish government via his governmental agencies, and in cooperation with several international institutions has made great efforts embodied in many procedures and programs, to provide an entrepreneurial ecosystem suitable for the establishment and growth of startups.

Due to the efforts of the scientific and technological research council of Turkey in providing grants to idea-stage startups since 2012, 268 idea-stage startups received grants of 200,000 Turkish Liras each in 2021, and 178 such startups received grants of 450,000 Turkish Liras each in 2022. Small and Medium Industry Development Organization has

also been providing grants for many years at many levels, from the idea stage to the research and development stages (Startups Watch, 2022, p. 9).

2.2. Startup supporting actors:

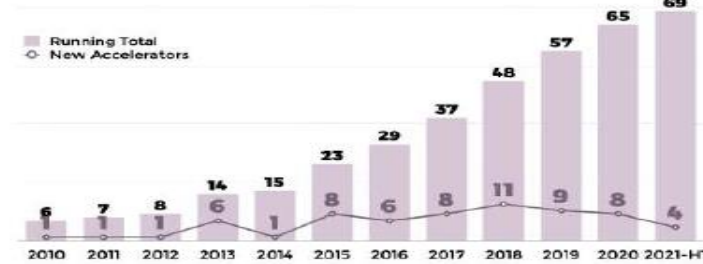
In addition to government support, there is a set of actors that have contributed to supporting the Turkish entrepreneurial ecosystem and startups, which are: startup accelerator programs, technoparks, incubation centers and co-working spaces.

2.2.1. Startup accelerator programs:

Accelerator programs represent startup support actor, considered essential to help startups to reach the scale up stage and prepare for seed or series a funding from venture capitals (DEİK, 2022, p. 25).

The figure below illustrates the evolution of startup accelerator programs in Turkey during the period from 2010 until the first half of 2021:

Figure 01. Startup Accelerator programs in Turkey (2010-2021)



Source: (Startups Watch, 2021, p. 6)

From the figure, we notice a gradual rise of startup accelerator programs during the period from 2010 until the first half of 2021. In 2010, the Turkish entrepreneurial ecosystem had only 6 startup accelerator programs, this number had been increasing progressively in the following years and reached 69 at the end of the first half of 2021.

According to (DEİK, 2022, p. 26), accelerator programs become more specialized in verticals with high-growth potential, gaming industry is considered as the center of attraction, where the number of programs directed to this industry increased by 33% from 2020 to the first half of 2021.

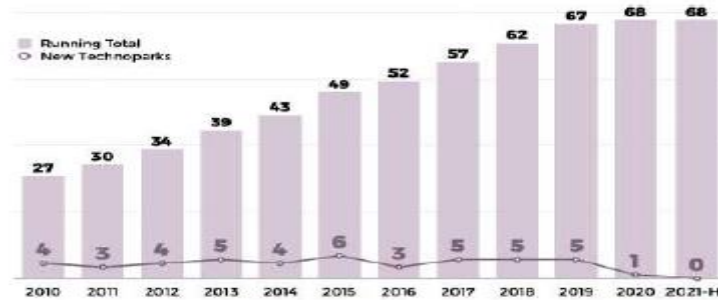
2.2.2. Technoparks:

Technoparks play an important role, especially in later-stage startup growth; this is why scaleups overwhelmingly tend to found offices in technoparks, while most early-

stage startups in Turkey tend to prefer incubation centers, co-working spaces, and accelerator programs (Startups Watch, 2021).

The figure below shows the evolution of technoparks in Turkey during the period from 2010 until the first half of 2021:

Figure 02. Technoparks in Turkey (2010-2021)



Source: (Startups Watch, 2021, p. 7)

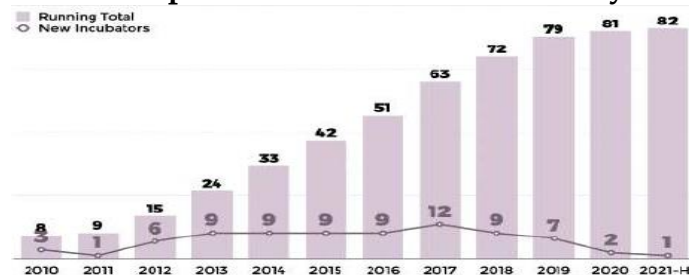
From the figure, we note a gradual rise of technoparks in Turkey during the period from 2010 until the end of the first half of 2021. In 2010, the number of technoparks in Turkey was 27 and it had been increasing gradually in the following years and reached 68 in 2020, this number stayed constant at the end of the first half of 2021.

2.2.3. Startup incubation centers:

Incubation centers play a crucial role in the entrepreneurial ecosystem, as they contribute to stimulating and supporting startups.

The figure below shows the evolution of startup incubation centers in Turkey during the period from 2010 until the first half of 2021:

Figure 03. Startup incubation Centers in Turkey (2010-2021)



Source: (Startups Watch, 2021, p. 6)

From the figure, we notice the following:

- The Turkish entrepreneurial ecosystem witnessed a gradual rise in the number of startup incubation centers during the period from 2010 until the first half of 2021;

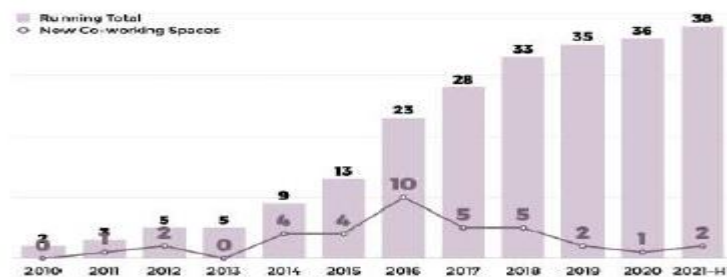
- The number of incubation centers amount to eight in 2010 and it had been increasing gradually in the following years reaching 82 at the end of the first half of 2021.

It should be mentioned that the most Turkish incubator centers have been founded by technoparks, namely, within or around universities (DEİK, 2022, p. 25).

2.2.4. Co-working spaces:

The culture of co-working appeared in Turkey in 2010, the figure below demonstrates the evolution of co-working spaces in Turkey during the period from 2010 until the first half of 2021:

Figure 04. Co-working spaces in Turkey (2010-2021)



(Startups Watch, 2021, p. 7)

From the figure, we notice that, in 2010 the Turkish entrepreneurial ecosystem had a few as two co-working spaces, this number witnessed a slow rise in the following five years, and reached 13 in 2015.

After that, this number experienced a quantum leap, reaching 23 in 2016, where the co-working spaces became the most active hubs for entrepreneurship, thanks to the organization of events and activities, and the provision of opportunities to interact with people across various disciplines (Startups Watch, 2021, p. 7).

The number of co-working spaces continued to rise in the following years, reaching 36 in 2020 and 38 at the end of the first half of 2021.

2.3. Startups investments in the Turkish entrepreneurial ecosystem:

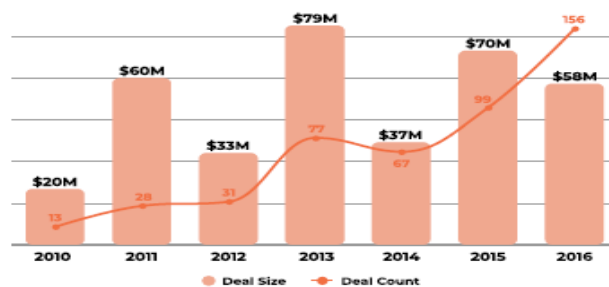
By tracking the path of the Turkish entrepreneurial ecosystem, we have found that 2017 was a pivotal year for Turkey, as the entrepreneurial ecosystem reached a new level since this year with the number and amount of startups investments; this was due to the efforts deployed in supporting the entrepreneurial ecosystem.

Therefore, the Turkish entrepreneurial ecosystem can be divided into two periods, the first from 2010 to 2016, and the second from 2017 onward.

- **The period before 2017 (2010-2016):** this phase was known as “the learning era” or “the learning period”, it was characterized by the following: (Startups Watch, 2022, p. 6)
 - The entrepreneurial ecosystem was fully functional and supported by startup acceleration programs, incubation centers, angel networks and Venture capitals;
 - Turkish startups started to receive investments, local champions appeared, and newly established local venture capitals started to invest for the first time;
 - Startups sought to achieve the necessary metrics to increase large investment rounds because of the lack of experience in globalization.

The figure below shows the evolution of angel and venture capital deals in Turkey during the period (2010-2016), in terms of deal size and deal count:

Figure 05. Angel and venture capital deals in Turkey in (2010-2016)



Source: (Startups Watch, 2022, p. 6)

From the figure above, we note the following:

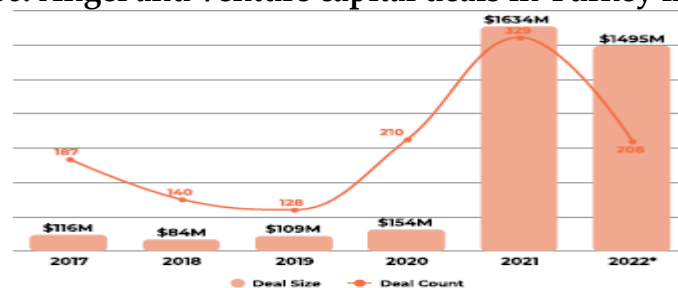
- The deal count witnessed a gradual increase from 2010 to 2013, where it attain 13 in 2010 and 77 in 2013, then it decreased to 67 in the following year, and increased again in the following two years reaching 156 deals in 2016;
- Investment amount , represented by the deal size, did not exceed 100 million dollars per year, during the period (2010-2016), it ranged between 20 and 79 million dollars.

This can be explained, by the fact that the Turkish entrepreneurial ecosystem was still developing during this period, especially in light of the lack of experience .Accordingly, it can be said that Turkey gained experience in this period to move to another stage with more experience and strength.

- **The period after 2017:** after the learning period, and since the beginning of 2017, the Turkish entrepreneurial ecosystem has entered a different phase called “the experienced era”, in which the number of global startups has soared, and with the wealth of experience accumulated in the previous period, it has begun to push for a place in the top echelons among emerging markets (Startups Watch, 2022, p. 7).

The figure below shows the evolution of Angel and venture capital deals in Turkey in the period from 2017 until the end of the nine first months of 2022, in terms of deal size and deal count:

Figure 06. Angel and venture capital deals in Turkey in (2017-2022)



(Startups Watch, 2022, p. 7)

From the above figure, we notice that, compared to the previous years (2010-2016), the annual investment in the period (2017-2022) exceeded 100 million dollars (except in 2018). The annual investment reached 116 million dollars in 2017 invested in 187 investment rounds, but it decreased in the following year to 84 million dollars invested in 140 investment rounds, according to (Startups Watch, 2022, p. 7), these two years were dedicated to the efforts of venture capital funds to found their second fund.

However, the annual investment rose again in the following two years, and reached 154 million dollars invested in 210 investment rounds in 2020.

This year witnessed the transition of the Turkish entrepreneurial ecosystem to another level, thanks to the gaming industry, which produced world champions for the first time; Peak, a startup from the gaming industry, had become the first Turkish startup to cross 1 billion dollars threshold and exit for 1.8 billion dollars, and Rollic, another startup from the gaming industry also sold 80% of its shares for 180 million dollars 21 months after its founding (Startups Watch, 2022, p. 7).

After 2020, the annual investment witnessed a significant rise, as it was multiplied by more than 9 times in 2021, and had experienced a quantum leap to reach 1 billion 634 million dollars invested in 329 investment rounds.

According to (StartupBlink, 2022, p. 187), 2021 was a record year for Turkish startups, the gaming industry has attracted global interest with unicorns (startups valued at over 1 billion dollars), such as Dream Games, and Turkey has moved forward in other industries, Getir, a leader startup in delivery services, became a decacorn (a startup valued at over 10 billion dollars).

In the first nine months of 2022, the annual investment decreased slightly to 1 billion 495 million dollars invested in 208 investment rounds as shown in the figure below.

However, at the end of 2022, a record-breaking investment of 1 billion 74 million dollars made in the Turkish startups, invested across 341 investment rounds. Although 65% of the investment amount came from three mega investments (100 million dollars or more), 594 million dollars were invested in the rest of investment rounds.

In this year, the investment in the gaming industry started to move from mobile hypercasual and towards blockchain-based games, where 30 startups working in artificial intelligence and machine learning verticals received investment in 2022, followed by finance with 27 startups and healthcare with 25 startups (Bigg TUBITAK, 2023).

The result of the experienced era is the appearance of Turkish startups reaching billion-dollar valuations, where before 2020, there was no startup in Turkey with a valuation exceeding one billion dollars, but in 2022, 6 startups exceeded this valuation (hepsi Burada, Trendyol, Peak, Insider, Getir and Dream), two of them (Getir & Trendyol) were even labeled decacorns (Startups Watch, 2022, p. 7).

Conclusion:

We attempted, through this study, to highlight the contribution of the entrepreneurial ecosystem in startups success, as well as presenting the Turkish experience in this field.

We have come up with the following results:

- The entrepreneurial ecosystem is a set of factors that interact each with other to provide an appropriate environment that facilitates the establishment and the development of startups;
- There are no standardized components of the entrepreneurial ecosystem, that can be appropriate for all environments, it must include all the factors that support the entrepreneurial work and startups growth, according to the specificities of each environment ;
- The entrepreneurial ecosystem is the platform that supports the creation and the growth of startups, by contributing in the creation of opportunities and providing an appropriate environment that helps entrepreneurs launching their startups, as well as mitigating the challenges and obstacles that they may face. **depending on this result, we confirm the first hypothesis to this study;**
- Startups in Turkey find full support from the Turkish government, which seeks to provide an appropriate entrepreneurial ecosystem, through programs and procedures that support the establishment and the development of startups;
- The emergence of new startup supporting actors such as accelerator programs, technoparks, incubation centers, co-working spaces in Turkey, has a positive impact on the development of the Turkish entrepreneurial ecosystem and startups Success;
- The Turkish entrepreneurial ecosystem reached a new level since 2017, with the number and amount of startups investments, this was due to the efforts of both public and private sectors, that were deployed in supporting the entrepreneurial ecosystem, **which confirms the validity of the second hypothesis.**

Finally, it can be said that the Turkish experience has proven the importance of the entrepreneurial ecosystem in the success achieved by Turkish startups, and therefore this experience can be considered as a lesson for other countries that aim to develop their economies through startups, which are considered as economic engines.

Accordingly, we recommend taking benefit from this experience, with the necessity of adapting economic policies with the characteristics of each country, because it is wrong

to copy the leading international experiences and apply them directly in economies with different systems and characteristics.

Referrals and references:

- Gonzalez Flores, K., & Katonáné Kovács, J. (2018). Defining the Entrepreneurship Ecosystem. *SEA - Practical Application of Science* (journal of the Romanian Foundation for Business Intelligence) , Volume VI, Issue 18, 299-306.
- Isenberg, D. (2011, May). The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Policy: Principles for Cultivating Entrepreneurship. Dublin Ireland., Institute of International and European Affairs.
- Isenberg, D. J. (2010). How to Start an Entrepreneurial Revolution. *harvard business review* , 1-11.
- Jafarov, N., & Judit , S. (2022). Review of entrepreneurial models. *ASERC Journal of Socio - Economic Studies*, Vol 5, number 1, 3-16.
- Kouraiche, N. (2018). Le rôle de l'écosystème de l'accompagnement entrepreneurial dans la promotion de l'entrepreneuriat en Algérie. *Les Cahiers du Cread*, vol. 34 - n° 2, pp. 75-106.
- Elzaitouni, Z., & Maaninou, A. (2020, Mars 2-4). L'écosystème entrepreneurial Marocain en faveur des jeunes entrepreneurs ou non ? analyse descriptive. *Actes de la deuxième conférence internationale sur la Francophonie économique "L'ENTREPRENEURIAT ET L'INSERTION PROFESSIONNELLE DES JEUNES"*, Université Mohammed V de Rabat, pp. 701-716.
- Mason, C., & Brown, R. (2013, November 7). *Entrepreneurial ecosystems and growth oriented entrepreneurship*. Background paper prepared for the workshop organised by the OECD LEED Programme and the Dutch Ministry of Economic Affairs , The Hague, Netherlands.
- Meero, A., Habeeb, U., & Abdul Aziz, A. (2020). The prospects of Bahrain's entrepreneurial ecosystem: an exploratory approach. *Problems and Perspectives in Management*, Volume 18, Issue 4, 402-413.
- Theodoraki, C., & Messeghem, K. (2017, January). Exploring the entrepreneurial ecosystem in the field of entrepreneurial support: a multi-level approach. *International Journal of Entrepreneurship and Small Business*, Vol. 31, No. 1, pp. 47-66.
- DEİK. (2022). *TÜRKIYE'S STARTUP ECOSYSTEM AND AVENUES FOR EU-TÜRKIYE COOPERATION*. İstanbul: DEİK.
- Expatia Investment consulting. (2020). *Turkish Startup Ecosystem 2020*. Retrieved from Expatia Investment consulting: <https://expatia.net/turkish-startup-ecosystem> (consulted on 07/01/2023 at 6:30 p.m.).

- StartupBlink. (2022). *Global Startup Ecosystem Index*. StartupBlink.
- Startups Watch. (2021). *The State of Turkish Startup Ecosystem: An In-Depth Analysis and Evaluation*. Istanbul Turkey.
- Startups Watch. (2022). *The State of Turkish Startup Ecosystem: An In-Depth Analysis and Evaluation*. Isranbul Turkey.
- The World Economic Forum. (2014). *Entrepreneurial Ecosystems around the Globe and Early-Stage Company Growth Dynamics – the Entrepreneur’s Perspective*. Cologny /Geneva Switzerland.
- Tubitak. (2023, January 17). *Turkish Startup Ecosystem Investment Report 2022*. Retrieved from
- Tubitak:<https://bigg.tubitak.gov.tr/report/2022-turkish-startup-ecosystem-investment-report> (consulted on 06/23/2023 at 7:30 p.m.).