

## How Successful is the Entrepreneurship Ecosystem in Kyrgyzstan?

Murat AVCI<sup>1</sup> & Kadir ARDIÇ<sup>2</sup>

### Abstract

Entrepreneurship, which affects the increase of the welfare level of societies, is carried out in many countries to encourage and support policies. With the technological developments in the world, countries are trying to create and develop the entrepreneurship ecosystem. In particular, many private-state institutions such as techno parks and incubation centers on issues as investor networks, work areas, and know-how support technological entrepreneurs. Thanks to the development of the entrepreneurship ecosystem in question, the increase in entrepreneurship, the development and growth of startups are ensured. In this sense, it is aimed to examine the entrepreneurship ecosystem in Kyrgyzstan and to reveal the situation of startups in the country. The study conducted semi-structured interviews with 21 startups in Kyrgyzstan, focusing on startups. We analyzed the demographic characteristics of entrepreneurs, information about their enterprises, their relations in the entrepreneurship ecosystem, and support mechanisms in our research. As a result of analyses, the characteristics of the entrepreneurs in Kyrgyzstan and the entrepreneurship ecosystem were evaluated with discussion and results, the issues and suggestions that should be developed in the entrepreneurship ecosystem were presented.

*Key Words:* Entrepreneurship, Ecosystem, Startup, Kyrgyzstan

### Kırgızistan'da Giriřimcilik Ekosistemi Ne Kadar Başarılı?

#### Öz

Toplumların refah seviyesinin yükselmesine etki eden girişimcilik, birçok ülkede teşvik edilmesine ve desteklenmesine yönelik politikalar yürütülmektedir. Dünyadaki teknolojik gelişmelerle beraber ülkeler girişimcilik ekosistemini oluşturmaya ve geliştirmeye çalışmaktadır. Özellikle teknolojik girişimcileri teknoparklar, kuluçka merkezleri gibi birçok özel-devlet kuruluşları tarafından yatırımcı ilişkileri, çalışma alanları ve uzmanlık gibi farklı konularda desteklenmektedir. Söz konusu girişimcilik ekosisteminin gelişimi sayesinde girişimciliğin artması, girişimlerin gelişmesi ve büyümesi sağlanmaktadır. Bu anlamda çalışmada Kırgızistan'daki girişimcilik ekosistemini incelemek ve ülkedeki startupların durumunu ortaya koymak amaçlanmıştır. Çalışmada startuplara odaklanarak Kırgızistan'daki 21 startup ile yarı yapılandırılmış mülakat yapılmıştır. Araştırmada girişimcilerin demografik özellikleri, girişimlerine ait bilgiler, girişimcilik ekosistemindeki ilişkileri, destek mekanizmaları analiz edilmiştir. Analizler sonucunda Kırgızistan'daki girişimcilerin özellikleri ve girişimcilik ekosistemi tartışma ve sonuçlarla değerlendirilmiş, girişimcilik ekosisteminde geliştirilmesi gereken konular ve öneriler sunulmuştur.

*Anahtar Kelimeler:* Giriřimcilik, Ekosistem, Startup, Kırgızistan


#### Atıf İçin / Please Cite As:

Avcı, M., & Ardiç, K. (2023). How successful is the entrepreneurship ecosystem in Kyrgyzstan?. *Manas Sosyal Arařtırmalar Dergisi*, 12(2), 580-599. doi:10.33206/mjss.1246571


**Geliř Tarihi / Received Date:** 02.02.2023

**Kabul Tarihi / Accepted Date:** 08.03.2023

<sup>1</sup> Dr. - Kırgızistan-Türkiye Manas Üniversitesi, murat.avci@manas.edu.kg

 ORCID: 0000-0002-2355-1396

<sup>2</sup> Prof. Dr. - Kırgızistan-Türkiye Manas Üniversitesi, İktisadi ve İdari Bilimler Fakültesi, kadir.ardich@manas.edu.kg

 ORCID: 0000-0001-7851-9564

## Introduction

One of the essential factors contributing to the development of national economies is entrepreneurship. Entrepreneurship is defined as the process by which an entrepreneur evaluates the opportunities around him/her to produce new goods or products and creates an entrepreneurial idea (Stam, 2014). The entrepreneurship ecosystem is a system of social, cultural, institutional, and other actors that promote the formation of new ventures and the growth of entrepreneurs. The entrepreneurial ecosystem gained attention after Moore (1993) used it to conceptualize the external environment of businesses (Malecki, 2018). The entrepreneurial ecosystem encompasses many actors and factors as finance, information, and support services in an interrelated network that will develop and support entrepreneurs' business ideas (Stam, 2015). The concept of an entrepreneurship ecosystem has recently attracted more attention and has become the subject of research (Malecki, 2018). In particular, the support provided by governments to develop the entrepreneurship ecosystem and Global Startup Ecosystem Index (Global Entrepreneurship Monitor) indicate this interest.

To develop the entrepreneurship ecosystem, not only state institutions but also informal institutions, resource providers, universities, technology parks, and incubators make significant contributions (Stam, 2014; Stam & Van de Ven, 2021). These actors are even more fundamental for startups. Because as the basic needs of a newborn baby, entrepreneurs require financing, consultancy, technical knowledge, teamwork, and many other issues (Salamzadeh & Kawamorita Kesim, 2017). The entrepreneurship ecosystem approach defines this type of entrepreneurship as a business model that has the potential to convert an innovative business idea into a venture and to grow rapidly (World Economic Forum, 2013). An entrepreneurship ecosystem is an environment where a new business idea is tested and necessary resources and support exist to start and grow the venture. In other words, an entrepreneurship ecosystem encompasses all the factors indispensable to sustain entrepreneurship in a region (Stam & Van de Ven, 2021).

Therefore, supporting and developing the entrepreneurship ecosystem is essential for entrepreneurship. In this study, the entrepreneurship ecosystem of Kyrgyzstan, a Central Asian developing country, was evaluated. Kyrgyzstan, which entered the ranking for the first time in the Global Startup Ecosystem Index 2022 report, ranked 100th. However, we have observed that detailed information is limited in the report or other studies. In the literature, Peru (Hernández & González, 2017; 2016), Iran (Salamzadeh & Kawamorita Kesim, 2017), Berlin (Baron & Harima, 2019), India (Jain, 2016; Singh et al., 2020), Singapore (Cheah et al., 2016), Israel (Fraiberg, 2017; Kon et al., 2015), Lithuania (Laužikas et al., 2015), Greece (Ziakis et al., 2022) and Hungary (Jáki et al., 2019) were investigated, so this study aimed to fill the gap of our knowledge on the Kyrgyzstan entrepreneurship ecosystem.

The research aims to fill this gap. In this direction, the study first provides information about the entrepreneurship ecosystem and then the entrepreneurship ecosystem of Kyrgyzstan (Bishkek). Then, the interviews with 21 startups were analyzed. Finally, we evaluated the results of the analysis and gave necessary information and recommendations for the entrepreneurship ecosystem of Kyrgyzstan.

## Entrepreneurship Ecosystem

An ecosystem is defined in the Cambridge Dictionary as all the living things in an area and the way they affect each other and the environment. However, although the entrepreneurship ecosystem is an interesting concept, researchers have no common definition (Stam & Van de Ven, 2021). Isenberg (2014) defines it as a dynamic network in which different actors are interconnected, while Audretsch and Belitski (2017) define it as a system in which entrepreneurial opportunities are evaluated and the commercialization process takes place, with many actors and factors influencing and being influenced. Spigel (2017) defines it as a mechanism that includes social, cultural, and economic elements that try to minimize risks and encourage against risks to ensure the development and growth of startups that transform new business ideas into ventures. Based on these definitions in the literature, the entrepreneurship ecosystem can be defined as follows; entrepreneurship ecosystem is to include formal and informal actors and factors in the region and country and international formal and informal actors and factors in the entrepreneurship network system to encourage, support, and grow innovative initiatives.

According to the relevant literature, they have attempted to sort the actors and factors that should be in the entrepreneurship ecosystem (Geibel & Manickam, 2016; Feld, 2012; Stam, & Van de Ven, 2021; WEF, 2013). For example, Feld (2012) listed nine factors for a successful organization of a startup

community, World Economic Forum (WEF, 2013) listed seven factors for a successful entrepreneurship ecosystem, and Stam and Van de Ven (2021) listed 11 sub-factors along with institution, resource, and new value creation (Table 1).

**Table 1.** *Factors of the Entrepreneurial Ecosystem*

Feld (2012)	World Economic Forum (WEF, 2013)	Stam and Van de Ven (2021)
<i>Leadership</i> Building a strong group of entrepreneurs to launch and grow the venture	<i>Accessible markets</i> Ensuring that small-medium-large companies and governments become customers in the domestic and foreign market	<i>Official institutions</i> Acting within the rules
<i>Intermediaries</i> Creating mentors, accelerators, and Incubators that provide support at all stages of entrepreneurship	<i>Human capital/ workforce</i> Entrepreneurial experience, management, and technical knowledge, access to the labor force	<i>Non-governmental organizations</i> Acting with cultural contexts
<i>Network density</i> Creating a community of entrepreneurs and establishing close links with actors and organizations	<i>Funding &amp; finance</i> Access to angel investors, venture capital, private equity, loans, family, and neighborhood financing	<i>Social networks</i> Actors' social ties
<i>Government</i> Establishing tax and investment policies by the government to support enterprise growth	<i>Support systems/ mentors</i> Access to incubators, accelerators, mentors, professional services	<i>Physical resources</i> Enabling actors to physically meet other actors
<i>Talent</i> Creating an employee pool of talented and specialized individuals. Universities play an important role in raising talented individuals	<i>Government &amp; regulatory framework</i> Ease of starting a business, tax incentives, legislation/policies, access to basic infrastructure	<i>Financial resources</i> Existence of financial instruments
<i>Support services</i> Access to professional support in finance, law, accounting, etc.	<i>Education &amp; training</i> Labor force and entrepreneurship-specific education at universities	<i>Leadership</i> Leadership provides guidance and direction
<i>Companies</i> Creating a program for cooperation between big companies and new entrepreneurs	<i>Cultural support</i> Building tolerance for risk and failure, self-employment preference, research culture, and a positive image of entrepreneurship	<i>Human capital</i> Individuals' skills, knowledge, and experience
<i>Capital</i> Access to a funding community of venture capitalists, angel investors, and other financial investors		<i>Information</i> Investments in (scientific and technological) knowledge production
<i>Engagement</i> Organizing events where entrepreneurs will make connections with participants		<i>Means of consumption</i> Presence of financial instruments for purchasing goods and services in the population <i>Manufacturer services</i> Intermediate service inputs to specialized functions <i>Productive entrepreneurship</i> Any entrepreneurial activity that directly contributes (or indirectly) to the net output of the economy or its capacity to generate additional output

As seen in Table 1, researchers have put different factors forward to create a successful ecosystem. While Table 1 examined, financial resources, human resources, government, mentor, and incubator support as general concepts. These factors constitute the basic structure of the entrepreneurship ecosystem. Considering start-ups contribute to regional development by promoting innovation, accelerating institutional and structural changes, and increasing efficiency, these factors become even more essential (Ziakis et al., 2022).

While the creation of a successful entrepreneurship ecosystem offers opportunities to entrepreneurs, an underdeveloped entrepreneurial ecosystem brings challenges to entrepreneurs. This leads to a decline in the number of entrepreneurs, the rate of venture growth, and the number of successful entrepreneurs. There are typical challenges that start-ups around the world struggle with. In his study of the Indian ecosystem, Korreck (2019) summarized the challenges faced by Indian start-ups in five headings: building

and scaling start-ups, diversity and the digital divide, willingness to enter the market and pay low, hiring skilled employees, and complex legislation.

Salamzadeh and Kawamorita Kesim (2017) categorizes these challenges under four headings: financial challenges, human resource management challenges, support measures and mechanisms, and other challenges. Entrepreneurs run and finance start-ups themselves. Friends and family members may invest as founding shareholders or co-founders (Hall and Woodward, 2008). Start-ups are financed in different ways: self-financing, friends and family support, angel investors, and venture funds of large companies (Salamzadeh & Kawamorita Kesim, 2017). Difficulties of finding financing is one of the most essential challenges that start-ups face in the early stages of establishing a business idea and it is also a factor that greatly affects the growth of a newly established business (Ziakis et al., 2022).

The management of human resources in start-ups is another serious challenge. As mentioned earlier, most start-ups start as sole proprietorships. However, as time passes, the founder needs to assemble his/her team. At this stage, co-founders and members are recruited to the startup and this transition makes everything more complicated (Salamzadeh & Kawamorita Kesim, 2017). According to Leavitt (2007), some small start-ups are unorganized; their employees have flexible tasks and roles and are often unspecialized and even ambiguous. Therefore, it is usual for startups to experience problems in human resource management. For example, Balawi and Ayoub (2022), who compared the Sweden, Finland, and Norway ecosystems, highlighted the problems of nascent start-up skills, insufficient human capital, and slow and uneven growth.

Another challenge is that support measures and mechanisms matter in the problems faced by start-ups (Salamzadeh & Kawamorita Kesim, 2017). Incubators, accelerators, small business development centers, angel investors, and science parks are among the different support mechanisms/organizations (Van Rijnsoever, 2022). These actors give financial, consultancy, and training support to entrepreneurs (Roundy, 2021). This is because small firms and enterprises are more prone to failure and are more vulnerable to failure than large companies (Chien, 2014). Therefore, these actors need to support entrepreneurs. Also, among other difficulties, there can be a failure, wrong go-to-market strategies, not being able to manage the team, not keeping the idea, and many other reasons.

Considering the above information, the challenges faced by entrepreneurs and the opportunities in the ecosystem show the state of the entrepreneurship ecosystem. In the next section of the research, the data on Kyrgyzstan's entrepreneurship ecosystem will be evaluated and then their situation will be analyzed based on the interviews with the startups. Thus, Kyrgyzstan's ecosystem will be evaluated by analyzing both the general ecosystem activities and the situation of start-ups.

### **Entrepreneurship Ecosystem in Kyrgyzstan**

According to World Bank data, the GDP per capita in Kyrgyzstan, which is in the category of developing countries, is 1,300 dollars. Kyrgyzstan, a low-middle-income country, requires strong and sustainable economic growth and institutional policies to support and develop the private sector and promote international trade ([www.worldbank.org](http://www.worldbank.org)).

It is also necessary to implement these policies to support the entrepreneurship ecosystem. In this way, increasing and developing entrepreneurial activities and their economic and social effects will be reflected in the country. Kyrgyzstan, which has recently made strides to support and develop entrepreneurship, operates with high-level institutional structures in the field of entrepreneurship through the Ministry of Digital Development and the State Agency for Intellectual Property and Innovation ([www.new2.patent.kg](http://www.new2.patent.kg)). In addition, the government is trying to support entrepreneurs through different projects and events.

In Kyrgyzstan, the government has launched the 2019-2023 "Digital Kyrgyzstan" program to develop digital skills, improve digital services and digital transformation of sectors, and ensure digital transformation. The program is spearheaded by the Ministry of Digital Development ([www.gov.kg](http://www.gov.kg)).

Ready4Trade Central Asia project launched an "E-commerce Development Program" for 2023-2026 to increase trade activities, attract investments, expand access to financial services and develop digital entrepreneurship in Kyrgyzstan ([www.etradeforall.org](http://www.etradeforall.org)). The goal of decent work and economic growth among the sustainable goals of the United Nations also represents entrepreneurs. For this goal, the Ministry of Economy of Kyrgyzstan and the United Nations Development Program in Kyrgyzstan are



acting jointly to develop entrepreneurs and the private sector ([www.undp.org](http://www.undp.org)). In addition, the Kyrgyzstan government has launched the "State Program for the Development of Intellectual Property" in the Kyrgyz Republic between 2017-2021 ([www.new2.patent.kg](http://www.new2.patent.kg)) and the intellectual property and innovation program between 2022-2026 to create an innovation ecosystem, develop the intellectual property market and contribute to the production of innovative products ([www.new2.patent.kg](http://www.new2.patent.kg)).

The government's projects and programs are pioneering the development of the entrepreneurship ecosystem. Apart from this, startup acceleration platforms that contribute to the development of the entrepreneurship ecosystem are among the actors of the entrepreneurship ecosystem. These actors are described below:

**The State Intellectual Property and Innovation Service of Kyrgyzstan (Kyrgyzpatent)** is the most important official organization for entrepreneurship in Kyrgyzstan. It was established to promote and support entrepreneurship. The State Intellectual Property and Innovation Service of Kyrgyzstan (Kyrgyzpatent) organizes startup idea competitions and project events. In addition, it produces programs and projects on different issues such as developing startups, creating a financing system, providing access to the market, and infrastructure, etc.

PEAK Innovation Center delivers incubation and acceleration programs, consultancy, and mentoring support to newly established companies, medium-sized companies, and startups through the PEAK Entrepreneurship and Innovation Development Program. It also actively supports entrepreneurship events.

Accelerate Prosperity Kyrgyzstan is a program funded by the US Agency for International Development (USAID). It provides the acceleration, advisory, financial, and research services to enhance entrepreneurial activity.

USAID is implementing development projects in Kyrgyzstan in different sectors. In the field of entrepreneurship, USAID supports entrepreneurs through various projects as the Enterprise Competitiveness Project.

KG LABS organizes sessions, hackathons, and workshops to generate new ideas to develop the technological ecosystem in Kyrgyzstan. It develops a network of cooperation with many professional mentors and investors for entrepreneurs.

Business Professionals Network, operating in Nicaragua, Rwanda, Mongolia, Georgia, and Kyrgyzstan, works to support and empower potential entrepreneurs.

Business Association JIA carries out activities to develop a community of innovative entrepreneurs in different regions of Kyrgyzstan.

The Kyrgyz Software and Services Developers' Association KSSDA is a platform for gathering entrepreneurs in the IT sector in Kyrgyzstan and organizing accelerator programs, training, events, and competitions.

The High Technology Park is an official organization that supports technological entrepreneurs. Companies operating here are exempt from taxes and insurance contributions. In 2022, there were 167 companies in the High Technology Park. In addition, the total revenue of their companies reached 25 million dollars by the end of 2022 ([www.htp.kg](http://www.htp.kg)).

Apart from these actors, other organizations in the entrepreneurship ecosystem provide services to entrepreneurs. For example, Ololohaus offers office space to many companies and startups. It also serves young entrepreneurs by organizing events through different platforms (including John Galt business incubator, ololohaus coworking, ololo art studio, ololoEvents, etc.). Besides, different international funders, communities, and platforms are active in Kyrgyzstan. ([www.startupcentraleurasia.com](http://www.startupcentraleurasia.com)).

In Kyrgyzstan's entrepreneurship ecosystem, different national and international actors are active. The increase in entrepreneurship events and competitions shows that the ecosystem is developing. Listed for the first time this year in the Global Map of Startup Ecosystem Index-2022 report, which evaluates entrepreneurship ecosystems around the world, Kyrgyzstan ranked 100th worldwide and 2nd in the Central Asia region. The Bishkek ecosystem ranked 732nd worldwide and 3rd in the Central Asia region ([www.startupblink.com](http://www.startupblink.com)). According to the Central Asia Regional Economic Cooperation Program (CAREC) report, Kyrgyzstan ranked 7th in the business region, while Bishkek ranked 47th. However, it is

worth exploring whether these developments are sufficient or how many opportunities and benefits they provide for entrepreneurs ([www.startupblink.com](http://www.startupblink.com)). For the ecosystem to develop further, it is necessary to reveal what kind of work needs to be done and in which subjects there are deficiencies. In this study, after providing information about Kyrgyzstan's ecosystem, the methodology of the study will be introduced.

## Method

The research aims to evaluate the ecosystem of Bishkek, Kyrgyzstan. To accomplish this purpose, the researcher used a qualitative research method to analyze the ecosystem of Kyrgyzstan. The aim of qualitative research methods is not to generalize samples to the whole, but to examine the data within the scope of the research in depth (Miles & Huberman, 1994, p. 27). Qualitative research refers to the methodologies in which data collection methods such as interviews, observations, and document analysis are applied and which enable perceptions and events to be revealed realistically and holistically in their natural environment (Yıldırım & Şimşek, 2011, p. 39). The interview technique, one of the qualitative research methods, was used to obtain data in the study. In the study, interviews were conducted with start-ups to evaluate the Bishkek ecosystem of Kyrgyzstan. In the study where the interview technique was used to obtain data, a semi-structured interview form was preferred as a data collection tool. For the preparation of pre-interview questions, studies conducted in other countries in the literature were taken into consideration. The interview questions were prepared by utilizing the studies of Salamzadeh and Kawamorita Kesim (2017) who investigated the Iranian ecosystem and Hernández and González (2016) who investigated the ecosystem of Lima, Peru. In the first step, two start-ups were interviewed with the prepared interview form. The interview continued to improve the interview questions. Interview questions were restructured on the issues emphasized as a result of the interview. Interviews with startups were planned with the finalized interview form.

The most important and basic feature of the sampling types is to work with a small number of people or small sample groups in depth within the scope of the research (Miles & Huberman, 1994, p. 27). In this context, the snowball sampling method (Kozak, 2015, p. 119), one of the purposive (non-probability-based) sampling methods frequently preferred in qualitative research, was utilized. Snowball sampling is realized by obtaining information about possible situations from people who know people who are in the field of interest of the research (Glesne, 2015, p. 61). Accordingly, in line with the research purpose, the snowball sampling method was utilized in the data collection process. With the snowball sampling method, interviews were conducted with other startups with who the startups were in contact. In total, data were collected from 21 start-ups that accepted the interviews.

The semi-structured interview forms aimed to explore the Bishkek start-up ecosystem in depth, focusing on issues such as the demographic characteristics of the founders, information about their families, information about start-ups, the status of the founders' start-ups receiving support from a mentor, incubator or accelerator, universities, and a government agency, entrepreneurship events they have participated in, the status of moving their start-ups to another country, their priorities in their start-ups, start-up stages, SWOT Analysis (strengths, weaknesses, opportunities, and threats) and encountered challenges (financing, human resources, support measures, other challenges).

## Analysis

21 start-ups participating in the research were established between 2016-2020, and the age range of their founders is between 21-36. 14 of them are married (16 men and 5 women) while 7 of them are single. Regarding the families of the entrepreneurs, the majority of their parents are public sector employees and most of their spouses are private sector employees. In response to the question "are there entrepreneurial individuals in the family?", 62% said no, while 24% said that their parents were entrepreneurs, and 14 % said that their siblings were entrepreneurs. One of the founders had a high school education, 14 of them had a bachelor's degree, 6 of them had a master's degree, 10 of them were computer engineers, 9 of them had a degree in social sciences (business administration, communication, international relations) and 1 of them had a degree in mathematics.

Participants' areas of expertise: The founders indicated that they are experts in software, management and business, and marketing.

How the idea for the start-up came about: In response to the question on how the founders thought of their business idea, 13 founders stated that they formed their business idea based on a specific idea,

need, or opportunity, 5 founders stated that they formed their business idea based on the combination of new venture idea and startup activities, and 4 founders said that they developed their business idea based on entrepreneurial activities.

**Table 2.** *Distribution of the Reasons for the Formation of the Startup Idea*

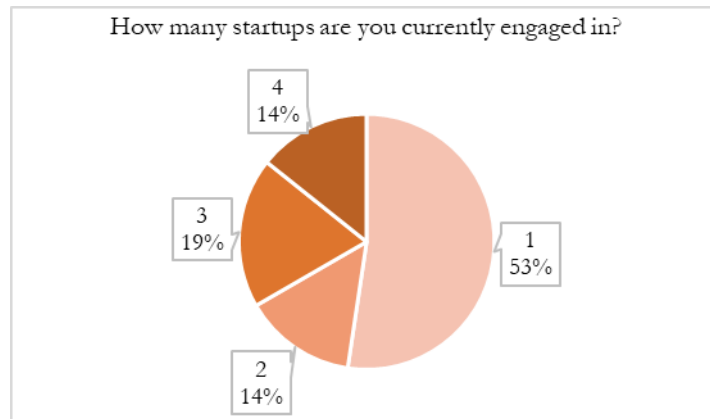
	Participants	Total
Based on a specific idea, need, or opportunity	P1, P3, P6, P8, P10, P11, P12, P13, P14, P16, P17, P18, P21	13
Based on entrepreneurial activities	P3, P15, P18, P20	4
Coexistence of new venture ideas and startup activities	P1, P3, P17, P18	4

*What was your intention when you started your start-up?* Having analyzed founders' intentions to launch start-ups, we found that 12 founders started their start-ups to make a significant change in society, 5 of the founders started their start-ups to fulfill their dreams, 4 of the founders to satisfy their financial needs, 3 of founders to make a significant change in their lives, and 2 of founders to gain respect in society. Based on analyze, most of the founders launched their start-ups to make a significant change in society.

**Table 3.** *Distribution of Reasons for Starting Startups*

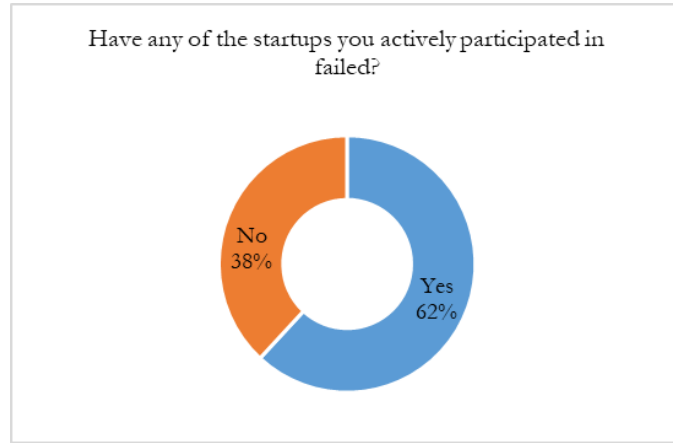
	Participants	Total
To make a significant change in your life	P11, P13, P16	3
To make a significant change in your society	P1, P3, P6, P7, P10, P12, P13, P15, P17, P18, P20, P21	12
Satisfying the financial needs	P3, P13, P16, P18	4
The realization of the dream	P1, P3, P8, P17, P18	5
Gaining respect in society	P12, P21	2
Other	P14	1

*How many start-ups are you currently engaged in?* When asked how many start-ups the founders are engaged in at the same time, it was found that 11 founders are engaged in one startup, 4 of the founders in three start-ups, 3 of the founders in two start-ups, and 3 of the founders in four or more start-ups.



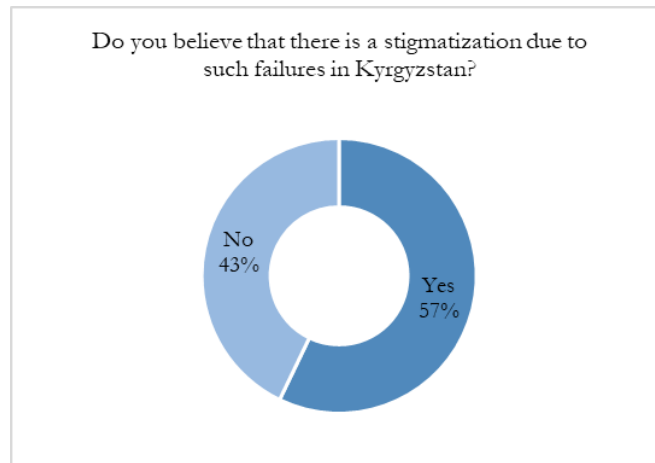
**Figure 1.** *Distribution of Startups that Entrepreneurs are Engaged in*

*Have any of the startups you actively participated in failed?* One founder stated that he failed 10 times, one founder 8 times, one founder 2 times, and 10 founders failed once in response to the question. Eight founders stated that they had not failed before.



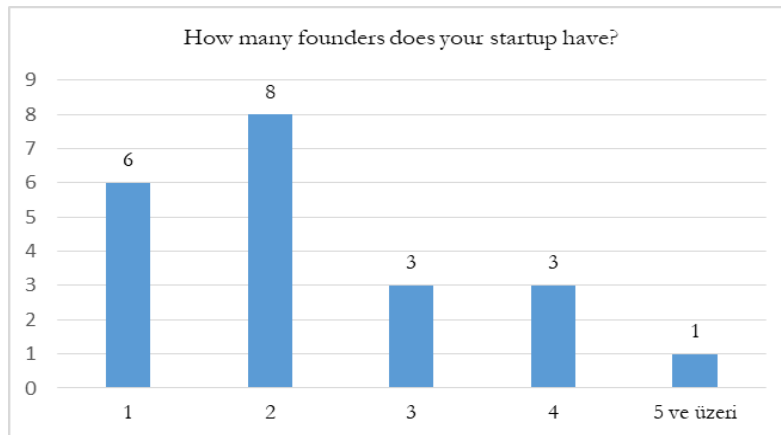
**Figure 2.** *Distribution of Startups Where Entrepreneurs Failed*

*Do you believe that there is a stigmatization due to such failures in Kyrgyzstan?* 12 founders answered yes, while 9 founders answered no to the question. Based on this, it can be said that the failures experienced in startups both cause and do not cause the founders to be stigmatized as incompetent. It can be said that this situation may vary depending on the region, society, family structure, perspective, and cultural differences.



**Figure 3.** *Entrepreneurs' Opinion about the Public Perception of Failure*

*How many founders does your startup have?* When the number of founders of startups is analyzed, it was determined that 8 startups have two founders, 6 startups have one founder, 3 startups have three founders, 3 startups have four founders, and 1 startup has five founders. It can be said that the majority of startups have two founders and one founder.



**Figure 4.** *Distribution of the Number of Founders in Startups*



How many female founders does your startup have? When female founders in startups are analyzed, it was observed that 15 startups had no female founders, only four startups had one female founder and one startup had two female founders. It can be said that the majority of startups have male founders and very few have female founders.

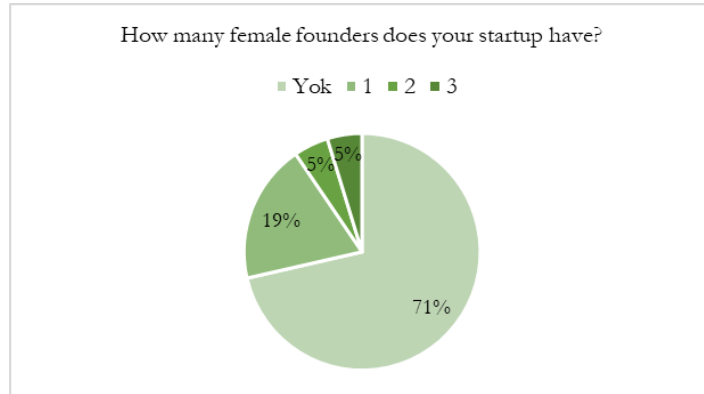


Figure 5. Distribution of Female Founders

How many employees do you currently have in your startup? 10 founders stated that they have between 1 and 4 employees, 4 founders have between 8 and 11 employees, 3 founders have between 5 and 7 employees, and 4 founders have 12 or more employees in response to the question. It can be said that approximately between 1 and 4 employees are employed in startups.

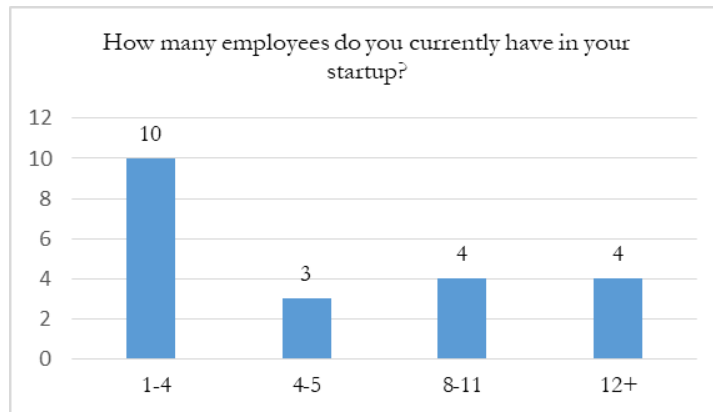


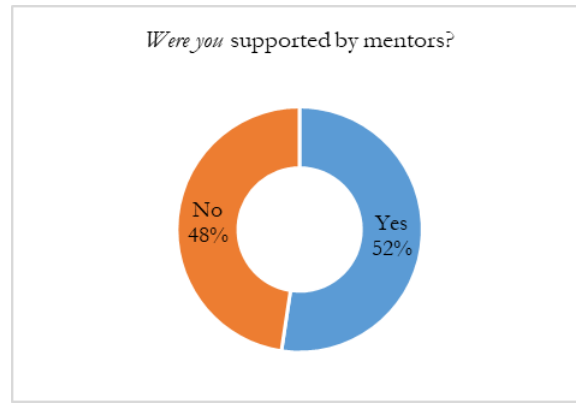
Figure 6. Distribution of Employees in Startups

How was your startup funded in the early stage? When the founders were asked how they funded their startups in the first stage, 19 founders stated that they funded their startups with personal financing, 5 founders were supported by friends and family, 2 founders were supported by angel investors and 3 founders were supported by investors. In line with this information, it can be said that a significant portion of the founders financed their startups with their financing.

Table 4. Distribution of Financial Resources of Startups at the First Stage

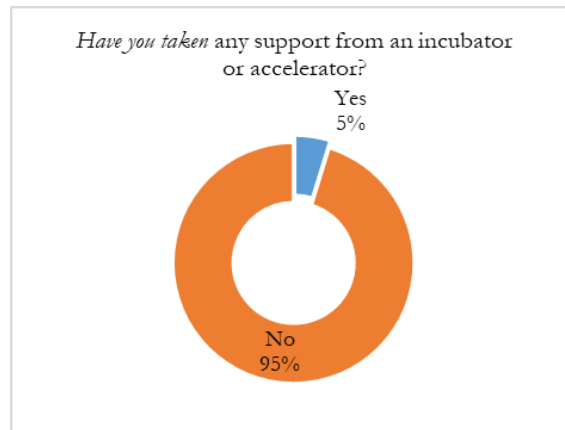
	Participants	Total
Personal Financing	P1, P2, P3, P5, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17, P18, P19, P20, P21	19
Friends and family	P3, P4, P7, P10, P18	5
Angel investor	P6, P8	2
Investor	P12, P14, P15	3

Were you supported by mentors? When the support of the startups by mentors was analyzed, it was ascertained that 11 founders reported that their startups were supported by mentors, and 10 founders reported that they were not supported by mentors. Therefore, it can be said that the support received by mentors and the lack of support received by mentors are approximately equal.



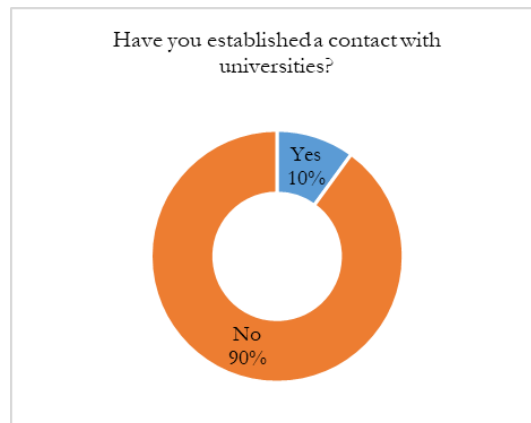
**Figure 7.** *Distribution of Support to Startups by Mentors*

*Have you taken any support from an incubator or accelerator?* When the support of the startups by an incubator or accelerator was analyzed, it was observed that only one founder received support from an incubator or accelerator and 20 founders did not receive support from an incubator or accelerator. Based on this finding, it is possible to say that startups do not receive any support from an incubator or accelerator.



**Figure 8.** *Distribution of Support to Startups by Incubator or Accelerator*

*Have you established contact with universities?* When the contacts of startups with universities are analyzed, it is seen that only 2 founders have established contact with a university, while 18 founders have not established any contact with any university. At this point, it can be said that the majority of founders did not have any contact with universities and did not receive any support from universities.

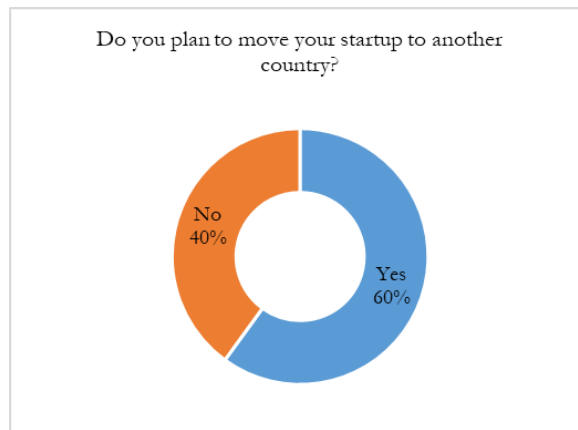


**Figure 9.** *Distribution of Support for Startups by Universities*

*Have you received support from any government agency?* When asked whether the startups received any support from any government agency, it was found that none of the startup founders received any support from the government.

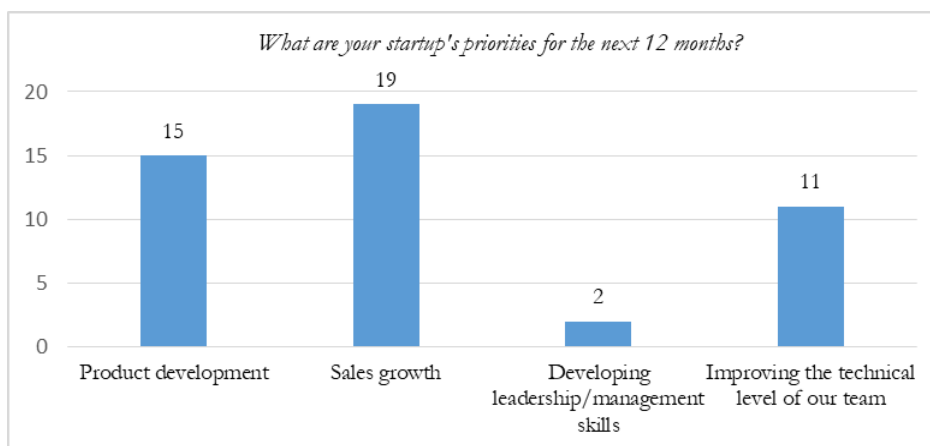
*Which entrepreneurship events did you attend?* When asked about the events that the founders participated in, 12 founders stated that they participated in JIA events, Ololohause events, Ololo Hauseda IT seminars, Big Data, Open Data, Consentrade, and IT seminars. It was determined that nine founders did not participate in any event. At this point, although the number of founders who participated in events is the majority, a significant number of them did not participate in any events.

*Do you plan to move your startup to another country* 12 founders answered yes, and 8 founders answered no to the question. It was determined that the majority of the founders thought to move their startups to another country and continue their activities in other countries by terminating their activities in Bishkek. Again, a significant number of founders did not think of moving to another country.



**Figure 10.** Distributions of Entrepreneurs about Their Intention to Move Their Startup to another Country

*What are your startup's priorities for the next 12 months?* When the priorities that the founders set for their startups in the next year were analyzed, it was determined that 19 founders set priorities for sales development, 15 founders for product development, 11 founders for improving the technical skills of their team, and 2 founders for improving their leadership/management skills. Accordingly, the founders gave importance to the priorities of sales development, product development, and improving the technical capabilities of their team, respectively, within a one-year period.



**Figure 11.** Distribution of Startups' Priorities for the Next 12 Months

*If you think of your startup in a stage, which stage would you describe it in?* When the founders were asked at which stage their startup is, 8 founders stated that their startup is in the Growth Stage, 8 founders stated that their startup is in the Productivity Stage (Opening the business to the market and Sales Channels), 4 founders stated that their startup is in the Validation Stage (Minimum Suitable Product and Team Selection) and 1 founder stated that their startup is in the Definition Stage (Idea Development).

**Table 5.** Stage Distribution of Startups

	Participants	Total
I. Definition Stage - Idea Development	P21	1
II. Validation Stage - Output of Minimum Suitable Product and Team Selection	P3, P7, P14, P18	4
III. Productivity Stage - Opening the business to the market and Sales Channels	P2, P5, P6, P11, P13, P15, P19, P20	8
IV. Growth Stage	P1, P4, P8, P9, P10, P12, P16, P17	8

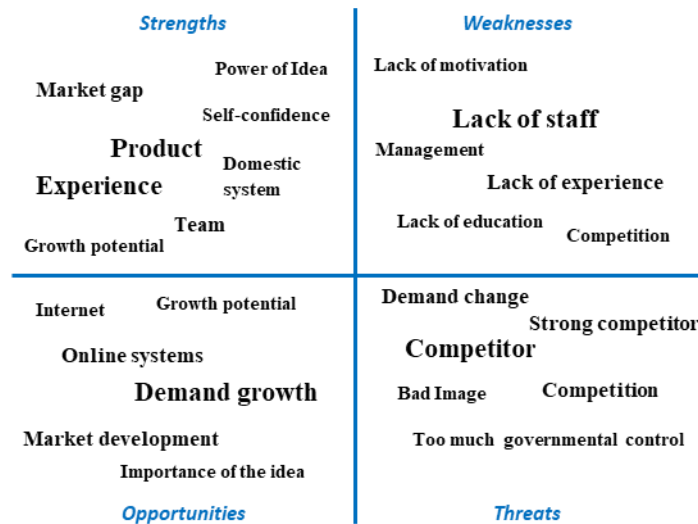
**SWOT Analysis**

**What are the weaknesses of your startup?** The founders mentioned the weakness of their startups as lack of financing, lack of personnel, management, human resources, and competition. In addition, lack of experience, conflicts between partners, lack of training, lack of motivation, bureaucracy, high prices, and lack of advertising are weakness of their start-ups.

**What are the strengths of your start-up?** Founders mentioned experience, product, team, and idea/market gap as the strengths of their start-ups. In addition, they identified the domestic system, growth potential, product quality, customer satisfaction, market development, professionalism, self-confidence, and sector understanding as their strengths.

**What are the threats will affect your start-up in Kyrgyzstan and the world?** As threats that will affect their start-up in Kyrgyzstan and the world, 8 of the founders pointed to competition and 4 of the founders pointed to competitors. In addition, other respondents added to these threats the threats of bribery, artist-customer rapprochement, the image of the country, too much control over entrepreneurs by government agencies, development of the industry in other ways, and attracting customers.

**What are the opportunities for your start-up in Kyrgyzstan and the world?** The founders cite the existing opportunities in the external environment as internet and online systems, market development, and demand growth. In addition, they see the importance of the idea, growth potential, increased use of navigation, and new initiatives as opportunities for their start-ups.



**Figure 12.** SWOT Analysis of the Founders

The founders' statements about their startups in the SWOT analysis are shown collectively in Figure 12. The prominent concepts emphasized by the majority of the founders are clustered in Figure 12. In this way, the prominent concepts in the groups of strengths, weaknesses, opportunities, and threats can be seen.

**Challenges Encountered**

Which of the following challenges did you mainly face during the startup creation phase? The researchers asked the founders about the challenges they faced during the startup creation phase subheadings of finance, human resources, support measures, and other challenges.

The founders stated that the financial challenges they faced during the startup creation phase were as follows: 8 of the founders stated the lack of access to initial startup financing, 4 of the founders lack of access to funding by themselves, 4 of the founders lack of financial knowledge, 3 of the founders lack access to venture capital, 3 of the founders lack angel investors, 3 of the founders lack access to bank loans, 2 of the founders lack funding from family and friends, 2 of the founders lack public offering opportunities and 1 of the founder talked about securing intellectual property rights.

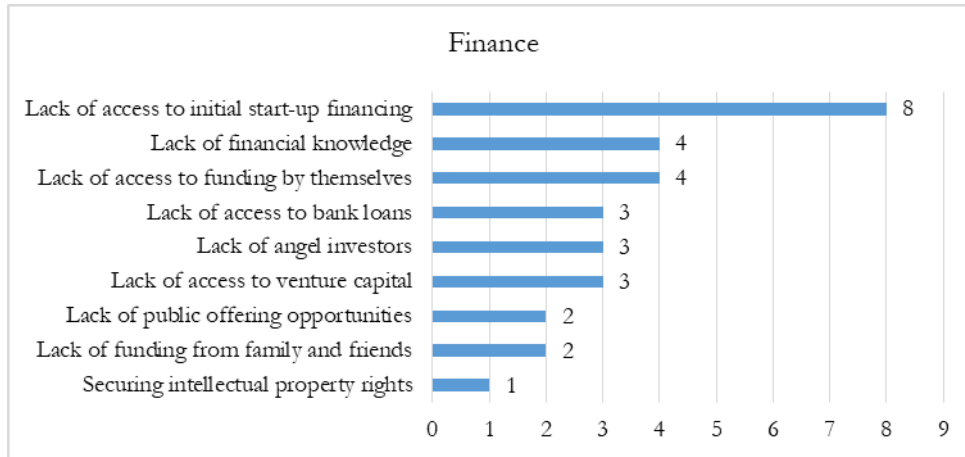


Figure 13. Distribution of Startups' Financial Challenges

The founders identified the human resource challenges they faced during the creation of their startups as "more responsibility and less supervision" by 8 founders, "lack of HRM knowledge" by 7 founders, "lack of team management skills" by 7 founders, and "defining the share structure between founders and co-founders" by 3 founders.

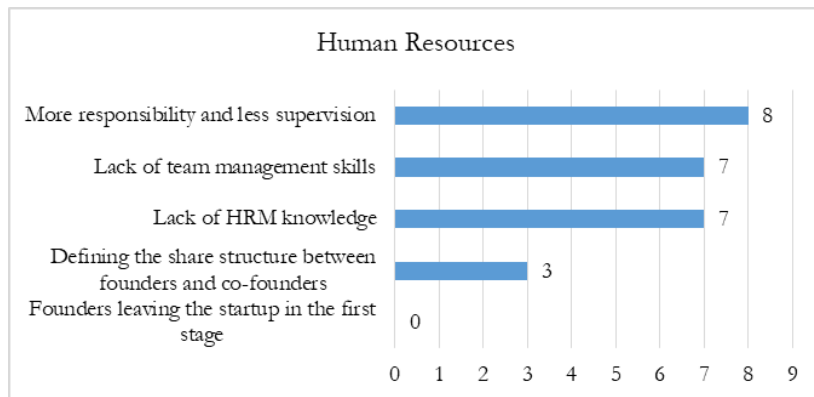
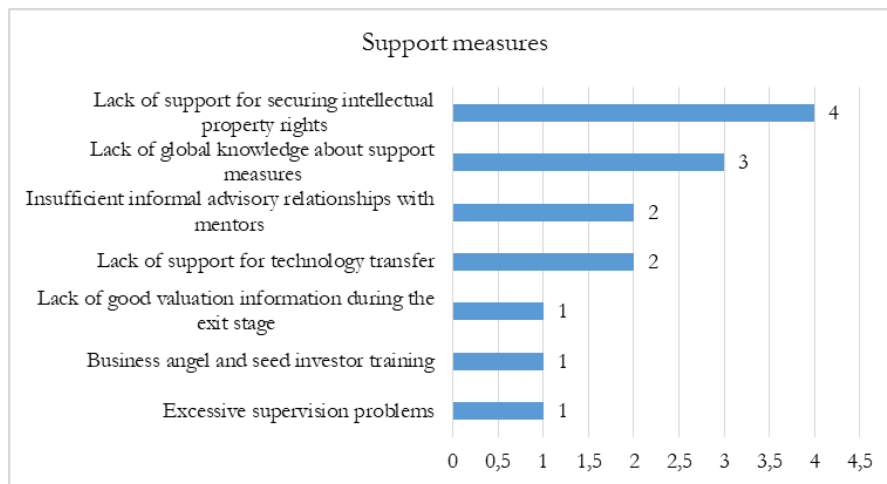


Figure 14. Distribution of Challenges Faced by Startups in Terms of Human Resources

The founders identified the support measures challenges they faced during the startup creation phase as, respectively, lack of support for securing intellectual property rights, lack of global knowledge about support measures, lack of support for technology transfer, insufficient informal advisory relationships with mentors, excessive supervision problems, business angel and seed investor training, and lack of good valuation information during the exit stage.

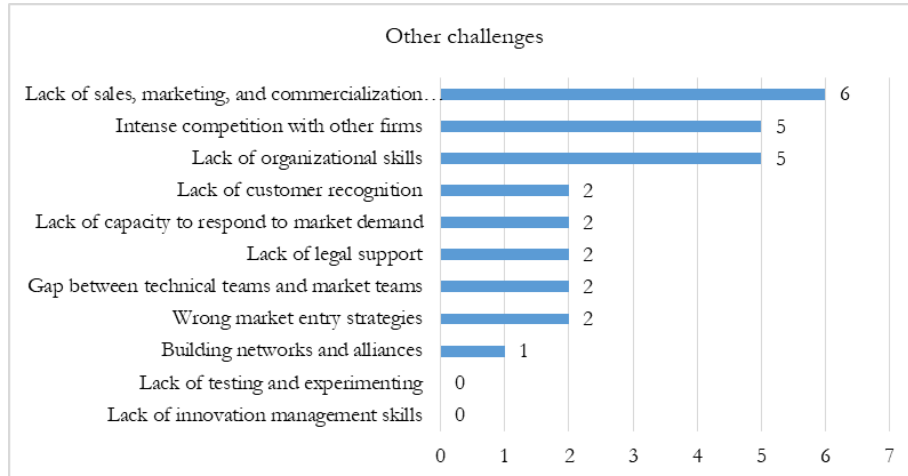




**Figure 15.** *Distribution of Startups' Challenges in Terms of Support Measures*

Four of the startup founders mentioned a lack of support for securing intellectual property rights, three mentioned a lack of global information on support periods, two mentioned a lack of support for technology transfer, one mentioned training of business angels and seed investors, and one mentioned excessive supervision problems (Figure 14).

Other challenges that the founders faced during the creation of their startups were mostly a lack of sales, marketing, and commercialization skills, a lack of organizational skills, and intense competition with other firms. In addition, wrong market entry strategies, the gap between technical teams and market teams, lack of legal support, lack of capacity to respond to market demand, lack of customer recognition, and building networks and alliances are other challenges faced by the founders during the startup creation phase.



**Figure 16.** *Distribution of Other Challenges Experienced by Entrepreneurs*

As can be seen in Figure 15, other challenges concentrated on a lack of sales, marketing, and commercialization skills, competition with firms, and lack of organizational skills. It was identified that founders have difficulties, especially in these areas, and support should be provided in these areas as well.

### Discussion and Conclusion

We conducted this study to evaluate the ecosystem of Bishkek, Kyrgyzstan. The results of the research indicate that a significant amount of the founders started their startups to make a change in society. In addition, these founders also reported that they started their startups to fulfill their dreams, meet their financial needs, make a significant change in their lives, and gain respect in society.

It was also inferred that most of the founders were interested in the same startup at the same time.

While analyzing the success of the founders in their startups, we found that a significant majority of the founders experienced failure. In particular, some startups have failed ten times. The important thing is not to forget that most entrepreneurs experienced these failures. Each failure will be the beginning of a new success and will provide experience. An important issue that can demoralize startups is the social stigmatization after failure. The founders stated that if their startups fail, they are pessimistically stigmatized as being unsuccessful by their close circle. Again, although a group of founders said there was no such stigma, the majority said that they were stigmatized. We can say that this situation may vary depending on the region, society, family structure, perspective, and cultural differences.

The research findings reveal that most startups have two founders or one founder. Whereas 15 of the startups had male founders, only four startups had one female founder and one startup had two female founders. The researchers found out that most of the startups consisted of male founders and very few of them had female founders. For this reason, importance should be given to encouraging women to be entrepreneurs. When the number of employees in startups is evaluated, it is observed that approximately 1 to 4 persons are employed in startups.

Entrepreneurs' business ideas are mostly based on a specific idea, need, or opportunity. We found out that the majority of the founders financed their startups with their financial resources in the early stages which might cause them financial problems in the early stages of their startups and have a direct impact on their ability to sustain a successful startup. Therefore, they need to be supported by other people and institutions such as friends and family, angel investors, government support organizations, incubators, accelerators, universities, and investors to create and sustain successful startups.

While analyzing the founders' access to support from mentors, incubators or accelerators, universities, and a governmental organization we found that mentors supported half of the founders, but only one founder received support from an incubator or accelerator, while 20 founders did not receive any. Likewise, it was observed that most founders did not contact universities and did not get any support from universities. Besides these, we revealed that none of the startup founders received any support from state institutions. The results of the research demonstrate that startups in the Bishkek ecosystem do not receive any support from the government, while very few startups have a founder receiving support from an incubator, accelerator, or a university. The significant majority of founders did not receive any support for their startups. A sophisticated analysis of external support received by the founders showed that only the support received by mentors was higher than other support mechanisms. State universities, incubators, and accelerators, which are important to ecosystems, should be more active in Kyrgyzstan.

On the other hand, it was determined that the majority of the founders in the Bishkek ecosystem participated in entrepreneurship events, such as JIA events, Ololohouse events, Ololo Hauseda IT seminars, Big Data, Open Data, Consentrade, IT seminars. In addition, it was observed that a significant portion of the founders did not participate in any entrepreneurship events. At this point, entrepreneurship events are essential both for the education, development, and sustainability of their startups and for the founders to develop their social networks and collaborations. Moreover, Kon et al. (2015) stated that education is the single most important factor that encourages entrepreneurship. In this regard, founders need to participate in such entrepreneurship activities.

The research data revealed that the majority of the founders in Bishkek are thinking of moving their startups to another country and terminating their activities in Bishkek and continuing their activities in other countries. At this point, it can be said that the lack of government support, lack of cooperation with universities, and lack of support from incubators or accelerators, which we have shown among the most important problems, play an important role. The lack of these supports can be shown among the most important factors that cause startups to move to different countries.

However, being a developing country, Kyrgyzstan may also play an important role in the lack of these support mechanisms. It is envisaged that this problem can be overcome with the cooperation of all stakeholders. Another important point to be considered here is that if the conditions of the ecosystem in Bishkek are good, the founders will expand their startups to carry out international activities instead of moving them to another country. This will allow startups to move internationally instead of relocating. Thus, both the economic development of Kyrgyzstan and the internationalization of startups will be ensured.

It was revealed that the priorities that the founders set for their startups in the next year were especially in the areas of sales development, product development, and improving the technical skills of their team. At this point, reasons such as the newness and sustainability of their startups may have played a role in their attention to these priorities. The priorities for developing leadership/management skills remained in the background, which may also be because they were just established and trying to gain a foothold in the market. As their startups grow in the future, they are likely to prioritize this and other aspects such as growth and sales development.

Founders in the Bishkek ecosystem mostly described their startups as being in the growth stage and the productivity stage. The validation stage was in the minority, with one founder describing their startup as in the definition stage. At this point, it was determined that the startups in the ecosystem are in the growth and productivity stages in terms of development.

The founders identified the weaknesses of their startups as a lack of financing, lack of personnel, management, human resources, competition, lack of experience, conflicts between partners, lack of training, lack of motivation, bureaucracy, high prices, and lack of advertising. The founders defined the strengths of their startups as experience, product, team and idea/market gap, domestic system, growth potential, product quality, customer satisfaction, market development, professionalism, self-confidence, and sector understanding. The founders highlighted the threats that may affect their startups in Kyrgyzstan and the world such as competition, competitors, bribery, artist-customer rapprochement, country image, too much control over entrepreneurs by state institutions, development of the sector in other ways, and possible threats affecting the ability to attract customers. The founders identified internet and online systems, market development, increase in demand, the importance of the idea, growth potential, increase in the use of navigation, and new initiatives in Kyrgyzstan and the world as opportunities for their startups.

The founders identified the financial challenges they faced in building their startups as lack of access to initial start-up financing, lack of access to funding by themselves, lack of financial knowledge, lack of access to venture capital, lack of angel investors, lack of access to bank loans, lack of funding from family and friends, lack of IPO opportunities, and securing intellectual property rights.

Founders identified the human resource challenges they faced in building their startups as more responsibility and less oversight, lack of human resource management (HRM) knowledge, lack of team management skills, and defining the share structure between founders and co-founders.

Founders identified the support measures challenges they faced during the startup creation phase as, respectively, lack of support for securing intellectual property rights, lack of global knowledge about support measures, lack of support for technology transfer, not enough informal advisory relationships with mentors, problems of excessive supervision, training of business angels and seed investors, and lack of good valuation information during the exit phase.

Founders cite other challenges they faced in building their startups as lack of sales, marketing, and commercialization skills, lack of organizational skills, intense competition with other firms, wrong market entry strategies, the gap between technical and market teams, lack of legal support, lack of capacity to respond to market demand, lack of customer recognition, and networks and alliances. The founders cite other challenges they faced during the creation of their startups as a lack of sales, marketing, and commercialization skills, lack of organizational skills, and intense competition with other firms.

### **Recommendations**

As mentioned earlier, there are many private and state-owned institutions and organizations working to develop the entrepreneurship ecosystem in Kyrgyzstan, such as Kyrgyzstan State Intellectual Property and Innovation Service (Kyrgyz patent), PEAK Innovation Center, Accelerate Prosperity Kyrgyzstan, USAID, KG LABS, The Kyrgyz Software and Services Developers' Association KSSDA, Business Professionals Network, Business Association JIA, and High Technology Park. Although there are essential legislative initiatives to promote scientific and academic research, more needs to be done to encourage higher education and R&D institutions to collaborate with the private sector ([www.startupblink.com](http://www.startupblink.com)). For Kyrgyzstan to achieve an innovation system based on sustainable development there is a need for businesses, including foreign partners, to focus on building their capacity to adopt and adapt information technologies. At this point, especially university-private and public-sector cooperation plays a major role.

According to Kon et al. (2015), high-quality education is the key factor for the success of any innovative environment.

The Bishkek startup ecosystem is in the development stage, so it naturally follows well-developed ecosystems around the world. Based on the world's leading startup ecosystems, the startup failure rate is lower in 'healthy' ecosystems due to the positive influence of more professional members of ecosystems such as mentors, academics, accelerators and incubators, angel investors, and public organizations (Laužikas et al., 2015). Improvements should be made in these factors in the Bishkek ecosystem to boost the success of startups.

According to the results of the research, it was observed that the majority of startups have two founders and one founder. The majority of the startups have male founders and very few of them have female founders. Laužikas et al., (2015) stated that a successful team should have at least one leader. A founding team has complementary skills and a solid value system that can be built on previous experience. Gender diversity in teams leads to more efficient performance. However, the research results showed that there is a scarcity of female founders in Bishkek startups. Women should be attracted to the startup ecosystem by supporting women entrepreneurs to create projects where they can share their experiences.

Based on the results of the above analysis of the entrepreneurship ecosystem, recommendations are presented. General conclusions and recommendations for the entrepreneurship ecosystem are tried to be summarized.

### ***Theoretical Inferences***

A qualitative research method was employed in the study. The most convenient way to efficiently analyze the dimensions of start-up ecosystems is to employ a mixed research method, combining qualitative and quantitative research methods (Laužikas et al., 2015). In this respect, future research can address the Bishkek ecosystem with a mixed research method.

Research on entrepreneurship ecosystems has been conducted in many different countries (Cheah et al., 2016; Hernández & González, 2017; 2016; Fraiberg, 2017; Jáki et al., 2019; Jain, 2016; Laužikas et al., 2015; Salamzadeh & Kawamorita Kesim, 2017; Ziakis et al., 2022). The results were also evaluated in this research conducted in the Kyrgyzstan ecosystem. In addition, the development of a common measurement tool that evaluates the entrepreneurship ecosystem in the literature will contribute to the research. With a measurement tool that will evaluate the actors and factors of the ecosystem, entrepreneurs and ecosystems can be compared with each other, their weaknesses and strengths can be revealed, and entrepreneurs can be enabled to strengthen their weaknesses.

### ***Practical Inferences***

According to the results of the analysis, recommendations have been made to institutions and entrepreneurs for further development of entrepreneurship in Kyrgyzstan. For example, the Government has recently implemented many policies, projects, and programs for entrepreneurship. Despite these policies such as Digital Kyrgyzstan, the State Program, and Projects for the Development of Intellectual Property, the results of the research show that they are not sufficient. The government should plan these projects and other projects to support entrepreneurs more actively. It is critical to encourage entrepreneurship through different projects and support projects for the development of entrepreneurs.

It was found that entrepreneurs do not communicate and connect with universities in any way. Universities, which are one of the important actors in the entrepreneurship ecosystem, are important for promoting entrepreneurship through entrepreneurship education and gaining skills in individuals. In this sense, it is recommended that universities play a more active role in the ecosystem. It was also ascertained that entrepreneurs do not receive support from incubators and accelerators. These platforms need to be developed and made more active. This will provide entrepreneurs with more growth opportunities and support for the economy. When the entrepreneurship ecosystems and literature in the world are examined, different organizations such as incubators, accelerators, and technology parks are actively operating to support entrepreneurs. Thanks to these organizations, entrepreneurs who want to establish and grow will benefit from the opportunities in the created network.

On the other hand, startups should more actively take advantage of the projects, platforms, institutions, and organizations that support entrepreneurship mentioned under the title of Kyrgyzstan entrepreneurship ecosystem in the study. In addition, the founders' focus on a single startup instead of

multiple startups will enable the growth and development of this startup by directing all their energy and perception to a single startup. In addition, they should receive more active training from different platforms for human resources management, management process, development of competencies, elimination of knowledge deficiencies, and develop their startups professionally.

In conclusion, the entrepreneurship ecosystem in Bishkek, Kyrgyzstan has made significant progress toward development. However, it needs to be developed further. For the development of the entrepreneurship ecosystem, a more active network system should be set up with government support and different actors such as universities, incubators, and accelerators.

### Ethical Declaration

During the writing process of the study titled "How Successful is the Entrepreneurship Ecosystem in Kyrgyzstan?", scientific rules, ethical and citation rules were respected; no falsification was made on the collected data and this study was not submitted to any other academic publication platform for evaluation. The ethics committee approval required for the research was obtained from Kyrgyzstan-Turkey Manas University Rectorate Ethics Committee dated 28/02/2022 and numbered 2022-2/47. Participants were notified in advance that the data would be used only for scientific purposes and voluntariness was adopted as a basis.

### References

- "Dorozhnaq Karta" po realizacii Konceptii cifrovoy transformacii "Cifrovoy Kyrjzstan 2019-2023" Retrieved from <https://www.gov.kg/ru/programs/12> (22.12.2022)
- Audretsch, D. B., & Belitski, M. (2017). Entrepreneurial ecosystems in cities: establishing the framework conditions. *The Journal of Technology Transfer*, 42, 1030-1051.
- Balawi, A. & Ayoub, A. (2022). Assessing the entrepreneurial ecosystem of Sweden: a comparative study with Finland and Norway using Global Entrepreneurship Index. *Journal of Business and Socio-economic Development*, 2(2), 165-180. <https://doi.org/10.1108/JBSED-12-2021-0165>
- Baron, T., & Harima, A. (2019). The role of diaspora entrepreneurs in start-up ecosystem development-a Berlin case study. *International Journal of Entrepreneurship and Small Business*, 36(1-2), 74-102.
- Cheah, S., Ho, Y. P., & Lim, P. (2016). Role of public science in fostering the innovation and startup ecosystem in Singapore. *Asian Research Policy*, 7(1), 78-93.
- Chien, C. (2014). Startups and patent trolls. *Stanford Technology Law Review*, 17, 461-461.
- Feld, B. (2012). *Startup communities: building an entrepreneurial ecosystem in your city*. Hoboken, New Jersey, John Wiley & Sons, Inc.
- Fraiberg, S. (2017). Start-up nation: Studying transnational entrepreneurial practices in Israel's start-up ecosystem. *Journal of Business and Technical Communication*, 31(3), 350-388.
- Geibel, R. C., & Manickam, M. (2016). Comparison of selected startup ecosystems in Germany and in the USA Explorative analysis of the startup environments. *Journal on Business Review (GBR)*, 4(3), 66-71.
- Glesne, C. (2015). *Nitel arařtırmaya giriř. (5th Edition)*. Ankara: Anı Publishing.
- Global Map of Startup Ecosystem Index-2022, [www.startupblink.com](http://www.startupblink.com)
- Hall, R.E. and Woodward, S.E. (2008), The Burden of the Non-Diversifiable Risk of Entrepreneurship (No. w14219), National Bureau of Economic Research.
- Hernández, C., & González, D. (2016). Study of the start-up ecosystem in Lima, Peru: Collective case study. *Latin American Business Review*, 17(2), 115-137.
- Hernández, C., & González, D. (2017). Study of the start-up ecosystem in Lima, Peru: Analysis of interorganizational networks. *Journal of Technology Management & Innovation*, 12(1), 71-83.
- High Technology Park of the Kyrgyz Republic, [www.htp.kg](http://www.htp.kg) (28.12.2022)
- Increasing exports and digital entrepreneurship in Kyrgyzstan, <https://etradeforall.org/news/increasing-exports-and-digital-entrepreneurship-in-kyrgyzstan/> (27.12.2022)
- Intellectual property and innovation program, <http://new2.patent.kg/wp-content/uploads/2022/11>
- Isenberg, D. (2014). What an entrepreneurship ecosystem actually is. *Harvard Business Review*, 5(1), 7.
- Jain, S. (2016). Growth of startup ecosystems in India. *International Journal of Applied Research*, 2(12), 152-154.
- Jáki, E., Molnár, E. M., & Kádár, B. (2019). Characteristics and challenges of the Hungarian startup ecosystem. *Vezetéstudomány-Budapest Management Review*, 50(5), 2-12.
- Kon, F., Hazzan, O., Yuklea, H., Cukier, D., & Melo, C. D. O. (2015). A conceptual framework for software startup ecosystems: the case of Israel. Technical Report RT-MAC-2015-01.
- Korreck, S. (2019). The Indian startup ecosystem: Drivers, challenges and pillars of support. *ORF Occasional Paper*, 210.
- Kozak, M. (2015). *Bilimsel arařtırma: tasarım, yazım ve yayım teknikleri*. Ankara: Detay Publishing.
- KyrgyzPatent, 2017-2021 State Program for the Development of Intellectual Property in the Kyrgyz Republic, <http://new2.patent.kg/wp-content/uploads/2022/11/%D0%A1%D0%A1%D0%91%D0%A0-2022-2024.pdf> (25.12.2022)



- Laužikas, M., Tindale, H., Bilota, A., & Bielousovaite, D. (2015). Contributions of sustainable start-up ecosystem to dynamics of start-up companies: the case of Lithuania. *Entrepreneurship and Sustainability Issues*, 3, 8-24.
- Leavitt, H.J. (2007). Big organizations are unhealthy environments for human beings. *Academy of Management Learning and Education*, 6(2), 253-263.
- Malecki, E. J. (2018). Entrepreneurship and entrepreneurial ecosystems. *Geography Compass*, 12(3), e12359.
- Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: A sourcebook*. Beverly Hills: Sage Publications.
- Moore, J. F. (1993). Predators and prey: a new ecology of competition. *Harvard Business Review*, 71(3), 75-86.
- Roundy, P.T. (2021). Leadership in startup communities: how incubator leaders develop a regional entrepreneurial ecosystem, *Journal of Management Development*, 40(3), 190-208. <https://doi.org/10.1108/JMD-10-2020-0320>
- Salamzadeh, A., & Kawamorita Kesim, H. (2017). The enterprising communities and startup ecosystem in Iran. *Journal of Enterprising Communities: People and Places in the Global Economy*, 11(4), 456-479.
- Singh, S., Chauhan, A., & Dhir, S. (2020). Analyzing the startup ecosystem of India: A Twitter analytics perspective. *Journal of Advances in Management Research*, 17(2), 262-281.
- Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41(1), 49-72.
- Stam, E. (2014). The Dutch entrepreneurial ecosystem. Available at SSRN 2473475 or <http://dx.doi.org/10.2139/ssrn.2473475>
- Stam, E. (2015). Entrepreneurial ecosystems and regional policy: a sympathetic critique. *European Planning Studies*, 23(9), 1759-1769.
- Stam, E., & Van de Ven, A. (2021). Entrepreneurial ecosystem elements. *Small Business Economics*, 56, 809-832 <https://doi.org/10.1007/s11187-019-00270-6>
- Startup Central Eurasia, information Kyrgyzstan, [www.startupcentraleurasia.com](http://www.startupcentraleurasia.com) (30.12.2022)
- The World Bank in the Kyrgyz Republic, <https://www.worldbank.org/en/country/kyrgyzrepublic/overview> (28.12.2022)
- United Nations Development Programme (UNDP), Kyrgyzstan is Improving the Business Environment and Private Entrepreneurship, <https://www.undp.org/kyrgyzstan/press-releases/kyrgyzstan-improving-business-environment-and-private-entrepreneurship> (25.12.2022)
- Van Rijnsoever, F. J. (2022). Intermediaries for the greater good: How entrepreneurial support organizations can embed constrained sustainable development startups in entrepreneurial ecosystems. *Research Policy*, 51(2), 104438.
- WEF - World Economic Forum (2013). Entrepreneurial Ecosystems Around the Globe and Company Growth Dynamics [https://www3.weforum.org/docs/WEF\\_EntrepreneurialEcosystems\\_Report\\_2013.pdf](https://www3.weforum.org/docs/WEF_EntrepreneurialEcosystems_Report_2013.pdf) (20.12.2022)
- Yıldırım, A. & Şimşek, H. (2016). *Sosyal bilimlerde nitel araştırma yöntemleri (10th Edition)*. Ankara: Seçkin Publishing.
- Ziakis, C., Vlachopoulou, M., & Petridis, K. (2022). Start-up ecosystem (StUpEco): A conceptual framework and empirical research. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(1), 35.

## TÜRKÇE GENİŞ ÖZET

Ülkelerin kalkınmasını sağlayan yapı taşlarından biri olan girişimcilik, girişimcinin yeni mal veya ürün üretmek için çevresindeki fırsatları değerlendirip girişim fikri oluşturma sürecidir (Stam, 2014). Yeni girişimlerin oluşması ve girişimcilerin büyümesi için teşvik edici sosyal, kültürel, kurumsal ve diğer aktörlerden oluşan bir sistem ise girişimcilik ekosistemi olarak adlandırılmaktadır. Girişimcilik ekosistemi, girişimcilerin iş fikirlerini geliştirecek ve destekleyecek birbiri ile ilişkili ağdaki, finans, bilgi ve destek hizmetleri gibi faktörleri ve birçok aktörü barındırmaktadır (Stam, 2015). Girişimcilik ekosisteminin gelişmesi için sadece devlet kurumları değil gayri resmî kurumlar, kaynak sağlayıcılar, üniversiteler, teknoloji parkları, inkübatörler de önemli katkı sağlamaktadır (Stam, 2014; Stam ve Van de Ven, 2021). Hatta start-uplar için bu aktörler daha fazla önemlidir. Çünkü yeni doğan bebeğin temel ihtiyaçları gibi girişimcilerin de finansman, danışmanlık, teknik bilgi, ekip çalışması ve farklı birçok konuya ihtiyaç duymaktadır (Salamzadeh ve Kawamorita Kesim, 2017). Girişimcilik ekosistemi yaklaşımı da bu tür girişimciliğin yenilikçi iş fikrini girişime dönüştürme ve hızlı büyüme potansiyeline sahip iş modeli olarak tanımlanmaktadır (World Economic Forum, 2013). Girişimcilik ekosistemi, yeni bir iş fikrinin denendiği ve girişimi başlatmak ve büyütme için gerekli kaynakların ve desteklerin bulunduğu bir ortamdır.

Bu nedenle girişimcilik ekosisteminin başarılı bir şekilde desteklenmesi ve geliştirilmesi girişimcilik için önemlidir. Bu çalışmada da Orta Asya ülkesi ve gelişmekte olan Kırgızistan'ın girişimcilik ekosistemi değerlendirilmiştir. Global Startup Ecosystem Index 2022 raporuna göre ilk defa sıralamaya giren Kırgızistan 100. sırada yer almıştır. Ancak raporda veya başka araştırmalarda ayrıntılı bilginin kısıtlı olduğu gözlemlenmiştir. Literatürde farklı ülkelerin girişimcilik ekosistemleri araştırılmış olmasına rağmen Kırgızistan girişimcilik ekosistemine yönelik bilginin ve araştırmaların kısıtlı olduğu görülmüştür. Bu nedenle bu çalışmada Kırgızistan'ın girişimcilik ekosisteminin araştırılması amaçlanmıştır.

Bu amacı gerekleřtirmek üzere Kırgızistan ekosistemini derinlemesine incelemek için nitel arařtırma yöntemi kullanılmıřtır. Amacı ile uyumlu olarak, veri toplama sürecinde kartopu örnekleme yönteminden yararlanılmıřtır. Kartopu örnekleme yöntemi ile startupların iletiřimde olduđu diđer startuplarla görüřmeler yapılmıřtır. Toplamda görüřmeleri kabul eden 21 startuptan veri toplanmıřtır. Yarı yapılandırılmıř görüřme formlarında, kurucuların demografik özellikleri (yař, cinsiyet, medeni durum, eđitim durumu), ailelerine yönelik bilgiler, startuplarına yönelik bilgiler, kurucuların startuplarının mentor, inkübatör veya hızlandırıcı, üniversiteler ve bir devlet kurumundan destek alma durumu, katıldıkları giriřimcilik etkinlikleri, startuplarını bařka ülkeye taşıma durumları, startuplarındaki öncelikleri, startup ařamaları, SWOT Analizi (güçlü yönleri, zayıf yönleri, fırsat ve tehditler) ve karřılařılan zorluklar (finansman, insan kaynakları, destek önlemler, diđer zorluklar) gibi konular üzerinde durularak, Biřkek startup ekosisteminin derinlemesine arařtırılması amaçlanmıřtır.

Analiz sonuçlarına göre bir dizi durum deđerlendirilmiř olup öneriler sunulmuřtur. Örneđin Hükümetin son dönemde giriřimcilik için birok politika, proje, program yürüttüđu gözlemlenmiřtir. Yürütölen bu Dijital Kırgızistan, Fikri Mülkiyetin Geliřtirilmesine Yönelik Devlet Programı ve projeler gibi birok politikaya rađmen arařtırma sonuçlara göre yeterli olmadıđu gözlemlenmiřtir. Hükümet'in bu projeleri ve giriřimcileri destekleyecek farklı projeleri daha aktif planlamalıdır. Farklı projeler ile giriřimciliđin teřvik edilmesi ve giriřimcilerin geliřtirilmesi için destekleyici projeler önem arz etmektedir.

Giriřimcilerin üniversitelerle hibir řekilde iletiřim ve bađlantı kurmadıđu tespit edilmiřtir. Giriřimcilik ekosisteminin önemli aktörlerinden biri olan üniversiteler giriřimcilik eđitimi ile giriřimciliđi teřvik etmesi ve bireylerde yeteneklerin kazandırılması için önemlidir. Bu anlamda üniversitelerin ekosistemde daha aktif rol oynaması önerilmektedir. Bunun yanında giriřimcilerin, inkübatör ve hızlandırıcılardan destek almadıđu tespit edilmiřtir. Bu platformların geliřtirilmesi, daha aktif hale getirilmesi gerekmektedir. Böylece giriřimcilere daha fazla büyüme olanađı ve ekonomiye destek olanađı sağlayacaktır. Dünyadaki giriřimcilik ekosistemleri ve literatür incelendiđinde inkübatör, hızlandırıcı, teknoloji parkları gibi farklı kuruluşlar giriřimcilere destek için aktif bir řekilde faaliyet göstermektedir. Bu kuruluşlar sayesinde giriřim kurmak ve büyüme isteyen giriřimciler oluřturulan ađdaki imkânlardan yararlanacaktır.

Diđer taraftan, startupların ise, alıřmadaki Kırgızistan giriřimcilik ekosistemi bařlıđı altında bulunan ve giriřimciliđi destekleyen proje, platform, kurum ve kuruluşlardan daha aktif bir řekilde faydalanmaları gerekmektedir. Ayrıca kurucuların birden fazla startup yerine tek bir startupta odaklanması, bütün enerjisini algısını tek bir startupta yönelterek, bu startupın büyümesini, geliřmesini sağlayacaktır. Bunun yanı sıra insan kaynakları yönetimi, yönetim süreci, yetkinliklerin geliřtirilmesi, bilgi eksikliklerinin giderilmesi için farklı platformlardan daha aktif bir řekilde eđitimler alınması ve profesyonel řekilde startuplarını geliřtirmeleri gerekmektedir.

Sonuç olarak Kırgızistan Biřkek giriřimcilik ekosistemi gelişme yönünde önemli yol kat etmektedir. Fakat daha fazla geliřtirilmesi gerekmektedir. Giriřimcilik ekosisteminin geliřtirilmesi için hükümet destekli ve üniversite, inkübatör ve hızlandırıcı gibi farklı aktörlerle daha aktif bir ađ sistemi kurulmalıdır.