



THE ROLE OF ACCELERATORS AND INCUBATORS IN FINANCING INNOVATIVE STARTUPS

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ABSTRACT

The article studies the views of leading world scientists on the role of accelerators and incubators in financing innovative startups, analyzes the activities of accelerators and incubators in our country, and conducts a comparative analysis of the financing mechanisms used by accelerators and incubators in Uzbekistan and abroad, develops substantiated conclusions and proposals on the role of accelerators and incubators in financing innovative startups, and provides recommendations for their application in our country.

KEY WORDS

Innovative startups, financing mechanisms, business accelerators, business incubators, venture capital, innovation ecosystem, startup ecosystem, seed financing, financial support.

Introduction

In the path of innovative development of the modern economy, digital transformation and the creation of innovative business projects are becoming increasingly important. In this regard, it is innovative startups that deserve special attention as a new source of economic growth, an essential factor in creating employment, and an effective means of ensuring competitiveness [1]. At a time when creating conditions for the development of innovative entrepreneurship in our country has become one of the priorities of state policy, the issue of improving startup financing mechanisms is extremely urgent [2]. In addition to traditional bank loans, modern financing mechanisms are also necessary to meet the financial needs of innovative startups. Accelerators and business incubators occupy a special place as institutions that provide not only financial support but also comprehensive assistance in the initial stages of startup development, such as mentoring, education, business contacts, and infrastructure [3]. The effective activities of these institutions largely affect the successful formation of an innovative ecosystem [4].

International experience shows that accelerators and business incubators are one of the most effective tools for developing innovative projects. For example, famous accelerators in Silicon Valley such as Y Combinator, Techstars, and 500 Startups have contributed to the global success of thousands of startups [5]. Although certain steps have been taken in this direction in Uzbekistan in recent years, it should be recognized that these processes are still in their early stages of development [6].

The role of accelerators and incubators in financing innovative startups has become even more relevant, especially during the COVID-19 pandemic. In the context of the pandemic, the digital transformation of the economy has accelerated, and the demand for startups offering digital products and services has increased sharply[7]. However, in the context of limited financial resources, effective mechanisms have become necessary to direct funds to the most promising projects[8]. In modern conditions, accelerators and incubators are reaching a new level. They are becoming platforms that not only support startups, but also unite large corporations, research centers, and investors[9].

This makes it possible to accelerate the process of commercialization of innovative projects and make effective investment decisions. In this context, the issue of improving the financing mechanisms of these institutions is of particular importance[10].

In the process of analyzing the literature on the topic, several leading economists and experts from around the world have conducted scientific research on the role of accelerators and incubators in financing innovative startups. Among them, Cohen and Hochberg (2014) defined accelerators as “programs that provide short-term, cohort-based training and mentoring support to startups, usually culminating in a certain amount of investment.” They considered accelerators as a mechanism for accelerating the development of startups, unlike business incubators [11].

Bruneel et al. (2012) studied the evolution of business incubators and proposed a classification of their generations. They noted that the activities of incubators have not only financial but also knowledge exchange and networking functions [12].

Pauwels and colleagues (2016) examined the new generation of accelerator models and divided them into three main groups: ecosystem-driven, investment-driven, and corporate accelerators. The researchers showed that each of these models has its unique financing mechanisms [13].

Clarysse and Wright (2015) analyzed the role of accelerators in startup financing and saw them more as “mechanisms that act as gateways for startups to enter the ecosystem and increase their access to venture capital” [14].

Hausberg and Correck (2020) studied the economic efficiency of accelerators and incubators and found that they significantly increase the viability of startups, but the results depend on regional and industry characteristics [15].

Hathaway (2016) statistically substantiated that startups participating in accelerator programs are more likely to attract initial investment and have a higher survival rate [16].

Battistella et al. (2017) proposed the concept of “open accelerators”, emphasizing that this model acts as a bridge between corporate innovation and startups. In their opinion, such a model has a positive impact on the financial sustainability of startups [17].

Mian et al. (2016) analyzed technological business incubation and showed that the institutional framework of incubators and accelerators in different countries differs significantly. This also affects their financing mechanisms [18].

Brown and Mason (2017) studied entrepreneurial ecosystems and showed that the success of accelerators and incubators largely depends on the innovative capacity and institutional environment of the region [19].

Radojevich-Kelley and Hoffman (2012) emphasized that close cooperation with private investors, business angels, and venture funds is essential for the successful operation of accelerators [20].

Lall et al. (2020) studied the operation of accelerators and incubators in developing countries and substantiated the importance of government support and the need to introduce effective public-private

partnership mechanisms [21].

Isenberg (2010) analyzed the role of the state in the development of the innovation ecosystem and emphasized the need for a comprehensive approach to supporting accelerators and incubators [22].

Kuckertz et al. (2020) studied the impact of the COVID-19 pandemic on startups and justified the need to introduce new financing mechanisms for accelerators and incubators in times of crisis [23].

Block et al. (2021) emphasized the importance of cooperation between state programs, accelerators, and incubators in financing startups during a pandemic [24].

Kholmirezayev and Ismoilov (2020) analyzed the experience of developing innovation infrastructure in Uzbekistan and emphasized the importance of accelerators and incubators for forming a national innovation ecosystem [25].

Rasulev and Islamov (2021) analyzed the innovation development strategy of Uzbekistan and substantiated the need to improve the institutional environment in financing startups [26].

Summarizing the views of these scholars, it can be noted that accelerators and incubators play an important role in financing innovative startups. They contribute to the development of startups not only by providing financial support, but also by providing services such as knowledge exchange, networking, and mentoring. However, their effectiveness depends on the institutional environment, state policy, regional characteristics, and industry specifics. In order to increase the role of accelerators and incubators in financing innovative startups in Uzbekistan, it is necessary to study international experience, improve financing mechanisms taking into account national characteristics, and develop an innovation ecosystem based on public-private partnerships.

Research Methodology

Economic research methods were used, such as analyzing research conducted by world scientists on the role of accelerators and incubators in financing innovative startups, collecting all information on the topic, comparing it, and logical thinking.

Analysis and discussion of results

In the global economy of the 21st century, innovative startups are recognized as an important source of economic growth, job creation and competitiveness. However, most startups cannot fully realize their potential due to financing problems. Especially in the early stages of development, they face serious obstacles in accessing bank loans and traditional sources of financing.

Accelerators and incubators are valuable in that they provide innovative projects not only with financial support, but also with comprehensive assistance such as mentoring, business connections, education and infrastructure. They help startups get through the most difficult stage, known as the “valley of death”, and significantly increase their viability. Studies show that startups that have passed accelerator programs attract subsequent financing 75% faster, and their survival rate is 1.5-2 times higher than average[27].

In the conditions of Uzbekistan, the importance of this topic is increasing, since our country is at the stage of forming an innovative ecosystem. The need to diversify the national economy, increase its competitiveness, and accelerate digital transformation poses the task of improving mechanisms for supporting innovative startups, including the activities of accelerators and incubators. The Decree of the President of the Republic of Uzbekistan No. PF-60 dated January 28, 2022 “On the Development Strategy of New Uzbekistan for 2022-2026” also identifies the formation of an innovative economy

and the introduction of digital technologies as one of the priority areas[28].

The importance of financing through accelerators and incubators is that they offer startups a tailored ecosystem compared to traditional sources of financing. In addition to providing financial support, they also provide startups with the opportunity to improve their business model, develop a go-to-market strategy, and establish relationships with potential customers and partners. This, in turn, increases the investment attractiveness of startups and creates the opportunity to attract larger investments at later stages.

Table 1 Analysis of the activities of accelerators and incubators in Uzbekistan¹

Name	Year of establishment	Main direction	Funding Type
IT Park Accelerator	2019	IT startups	\$5,000-\$20,000 average investment
INNO Technopark	2018	Industrial innovations	Grant Programs
C.A.T. Science Accelerator	2020	Scientific and technical projects	Grant + Mentoring
Startup Factory	2021	Digital economy	Pre-seed Investments
TSUL Legal Tech Incubator	2021	Legal technologies	Mentoring

Global experience shows that the activities of accelerators and incubators have a significant impact on the development of the innovation ecosystem. These institutions have played a significant role in the success of global innovation centers such as Silicon Valley, Tel Aviv, Berlin and Singapore. They serve not only to develop individual startups, but also the entire ecosystem, to form an innovative culture and improve entrepreneurial skills. It is important for Uzbekistan to study this experience and adapt it taking into account national characteristics.

The importance of studying the financing mechanisms of accelerators and incubators is also due to the fact that in the current conditions they are rapidly changing and new models are emerging. Corporate accelerators, open innovation platforms, virtual accelerators, regional innovation clusters - all these are modern forms of financing startups. Each of these models has its own characteristics, advantages and disadvantages, and studying the possibilities of their application in the conditions of Uzbekistan is an urgent task.

Table 2 Comparative analysis of financing mechanisms used by accelerators and incubators in Uzbekistan and abroad ²

Financing Mechanism	Application in global practice	Use in Uzbekistan
Shares in exchange for seed investments	Widespread (5-15% share)	Limited
Convertible debt	Actively used by accelerators	Almost not used
Grant programs	In public-private partnerships	Mainly by the state
Crowdfunding platforms	Widespread	Only now developing
Corporate partnership financing	Existing in sustainable ecosystems	There are isolated examples
Royalty-based financing	As an alternative mechanism	Not used

¹ Innovatsion rivojlanish agentligi

² Muallif tomonidan tayyorlangan.

The importance of studying the role of accelerators and incubators in financing innovative startups has increased even more in the context of the pandemic and global economic changes. During the COVID-19 pandemic, many startups faced serious difficulties, but it was precisely in these conditions that accelerators and incubators allowed many startups to survive and even develop. They continued to support innovative projects through the ability to quickly adapt, switch to a virtual format, and introduce new financing mechanisms. This experience is also valuable for Uzbekistan and is important in developing a strategy to ensure the stability of the innovation ecosystem in the face of possible future global crises. To improve the mechanisms for financing innovative startups in Uzbekistan, it is necessary, first of all, to analyze the existing legal and regulatory framework, study the organizational and economic foundations of the activities of accelerators and business incubators, and develop the national innovation ecosystem by adapting international experience. In this process, measures to introduce public-private partnership mechanisms, increase investment attractiveness, and stimulate innovative activities are of great importance.

Conclusions and Recommendations

Another important aspect of the activities of accelerators and incubators is that they facilitate entry into the venture financing market by improving the mechanisms for evaluating and selecting innovative projects. In conditions of limited venture capital, the issue of diversifying financing sources in accordance with the stages of development of startups is also of particular importance. In this context, accelerators and incubators help startups achieve financial stability by preparing them for the next stages of business activity and developing their skills in attracting investment. In the context of the rapid development of the digital economy, improving the mechanisms for financing innovative startups is of not only economic but also social importance. Because this ensures the employment of highly qualified specialists, develops entrepreneurial skills among young people, and increases the competitiveness of the country's economy.

To increase the role of accelerators and incubators in financing innovative startups in Uzbekistan, it is advisable to implement the following measures:

- Introducing tax incentives for angel investors and venture funds;
- Strengthening mechanisms for protecting intellectual property rights;
- Expanding access to international financing platforms for startups;
- Introducing Islamic financing instruments;
- Encouraging the participation of large companies in financing innovative projects;
- Developing a startup ecosystem development index;
- Improving the system for maintaining startup financing statistics.

The implementation of these proposals will increase the efficiency of financing mechanisms for innovative startups in Uzbekistan, develop the national innovation ecosystem, and ultimately serve to increase the competitiveness of the economy. In such conditions, accelerators and incubators, as an effective mechanism for financing innovative startups, will make a significant contribution to the development of innovative entrepreneurship in the country.

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