THE ROLE OF BUSINESS INCUBATORS IN THE DEVELOPMENT OF STARTUPS IN THE REPUBLIC OF SERBIA

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ABSTRACT:

In recent years, startups have seen significant expansion in the modern economy. Startups have become one of the important drivers of innovation, employment, and economic growth, particularly in transition economies such as Serbia. However, starting a business is often not an easy feat. It is a process that requires detailed planning, intensive work, time, as well as appropriate financial support and the readiness to take risks. The Serbian startup ecosystem is experiencing dynamic growth, with around 750 active startups and a record ecosystem value of 1.116 billion US dollars. Despite this, limited access to financing and a lack of talent remain key challenges. In this context, business incubators play a significant role, as they provide startups with access to financial and non-financial resources in the early stages of their business, thereby contributing to overcoming these challenges and improving their sustainability and future growth. The aim of the paper is to analyze the role of business incubators for the development of startups in Serbia, based on available secondary data. In this research, the method of analysis and synthesis will be applied, enabling a systematic and comprehensive review of relevant data sources. Based on this approach, it will be possible to draw certain conclusions, which is key to understanding the role of business incubators in fostering innovation and strengthening entrepreneurship and the startup ecosystem in the Republic of Serbia.

Keywords: *start-ups, business incubator, growth, innovation, the Republic of Serbia.*

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1. INTRODUCTION

The startups' ability to respond quickly to market uncertainty and technological change, develop new solutions, and create added value makes them significant contributors to economic growth, particularly in emerging economies [1]. However, the development of startups does not depend solely on their internal capacities, but also on the broader business environment, which can either stimulate or constrain their progress.

Startups face numerous challenges, among which limited access to financial resources, insufficient support, and complex regulatory frameworks stand out . These challenges are especially pronounced in less developed innovation ecosystems, where infrastructural and institutional gaps can slow down the growth of entrepreneurial initiatives. In such circumstances, various forms of support become crucial for overcoming barriers and increasing the likelihood of their long-term success [2].

An important role in developing innovative environment belongs to business incubators, as they provide startups with access to resources, knowledge, and networks in the early stages of development. Following this context, analyzing the factors that influence startup development, as well as understanding the role of incubators in this process, represents a central research question of this paper.

2. LITERATURE REVIEW

Empirical evidence suggests that startups operating in dynamic and uncertain environments must adopt flexible and innovative approaches to remain competitive and sustainable. Therefore the development of startups is shaped by a combination of internal capabilities, such as entrepreneurial orientation and innovation capacity, and external factors, including access to finance, institutional support, and market conditions.

At the same time, structural challenges persist, especially in ecosystems that are still developing. Limited access to funding, regulatory constraints, and shortages of skilled labor are frequently cited as major barriers to startup growth [3,4]. In response to these challenges, entrepreneurial support organizations have gained increasing importance as mechanisms for facilitating startup development and enhancing their chances of success.

2.1. Startups and their Development

The startups' success largely depends on their ability to leverage entrepreneurial orientation, which includes innovativeness, proactiveness, and risk-taking behavior. These factors significantly impact innovation performance, particularly in technology-driven startups [5]. In addition to internal capabilities, startups must respond effectively to external market dynamics. Understanding and adapting to changing consumer preferences through agile and data-driven business models defines startups market success [6]. Actually, this adaptability is crucial for maintaining competitiveness in rapidly evolving markets. In addition, access to finance remains one of the most critical challenges for startups. While traditional funding sources such as bank loans are still dominant, alternative financing mechanisms, including venture capital, crowdfunding or angel investors, are gaining atraction [4].

Scaling is another major challenge faced by startups. Chakraborty et al. (2025) identify key factors that facilitate scaling, including access to mentorship, technological capabilities, and integration into broader innovation ecosystems. These findings suggest that startup growth is not solely dependent on initial resources but also on continuous support and strategic adaptation. Previous research provides a strong foundation for understanding both the internal dynamics of startups and the external support systems that influence their performance. Within this context, business incubators emerge as a critical link between resources, knowledge, and entrepreneurial activity.

2.2. The Role of Business Incubators

Business incubators are widely acknowledged in the literature as essential institutions for fostering entrepreneurship and supporting early-stage ventures. Aiming to support individual startups, incubators play a broader role in promoting innovative ideas, technological innovation and new products. They act as intermediaries that facilitate collaboration between startups, research institutions, and established firms, thereby contributing to knowledge transfer and value creation [7]. They provide a combination of financial and non-financial resources, including mentoring, training, networking opportunities, and access to infrastructure. These support mechanisms often improve startup survival rates and growth prospects, especially during the initial stages of development [8].

The effectiveness of incubators depends largely on the alignment between the services they provide and the needs and capabilities of startups. Only integration of incubatees' entrepreneurial skills with incubator resources leads to enhanced performance outcomes [8].

Similarly, tailored incubation services can positively influence startup success across different sectors, suggesting that a one-size-fits-all approach is insufficient [9].

However, the literature also identifies that in certain environments incubators have a limited and marginal impact on startup success [10]. Therefore, it is necessary to adopt a broader perspective and, alongside strengthening incubators, focus on adapting and developing the wider innovation ecosystem in which startups operate Bureaucratic inefficiencies and rigid organizational structures, especially in publicly funded incubators, can hinder their effectiveness and reduce their ability to attract investment [11]. The success of incubators depends on a broader ecosystem that includes supportive policies, strong partnerships, and access to markets [12]. This paper aims to examine the contribution that business incubators make to the development of startups and the enhancement of overall innovation potential in Serbia.

3. CURRENT STATE OF STARTUP ECOSYSTEM IN SERBIA

According to data from Startup Genome and Startup Blink [12,13,14] the startup ecosystem in Serbia is experiencing significant growth.

Figure 1 shows the dynamic development of the startup ecosystem in the period 2018–2024, through two key indicators: the number of startups and the total valuation of the ecosystem.

A clear upward trend is observed in both indicators. In the initial phase, moderate but steady growth of both indicators is observed, indicating the laying of the foundations of the ecosystem and a gradual increase in interest in entrepreneurship. From 2020, a phase of more intensive development begins, accompanied by accelerated digitalization of the economy and strong growth of the ICT sector.

The period 2021–2023 is characterized by significant expansion, with the 2023 when the ecosystems of Belgrade and Novi Sad crossed the billion-dollar threshold. An additional boost to growth is provided by

strengthening institutional support through funds, programs, and infrastructure. Now, there is an increasingly pronounced focus of startups on advanced technologies, especially in the field of artificial intelligence.

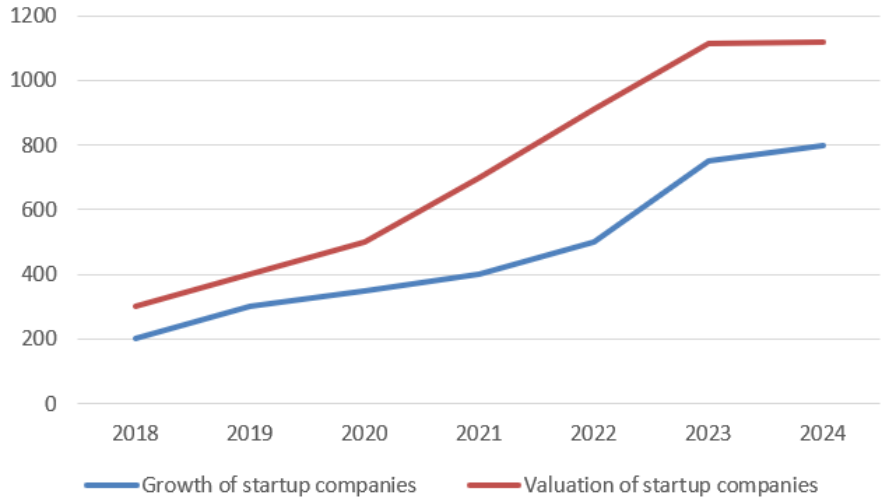

Fig. 1. The growth of startup companies in Serbia during 2018-2024

The Figure 2 illustrates the key challenges that startups face in Serbia. The most significant challenge is financing, cited by 59.7% of startups. This data indicates that access to capital remains a major obstacle to development, especially in the early stages of a business, when own resources are limited and access to investment is difficult.

The second most important challenge is attracting customers (39.3%), which indicates difficulties in positioning in the market. In third place is hiring of professional staff (28.4%), which indicates a lack of qualified personnel, especially in technological fields.

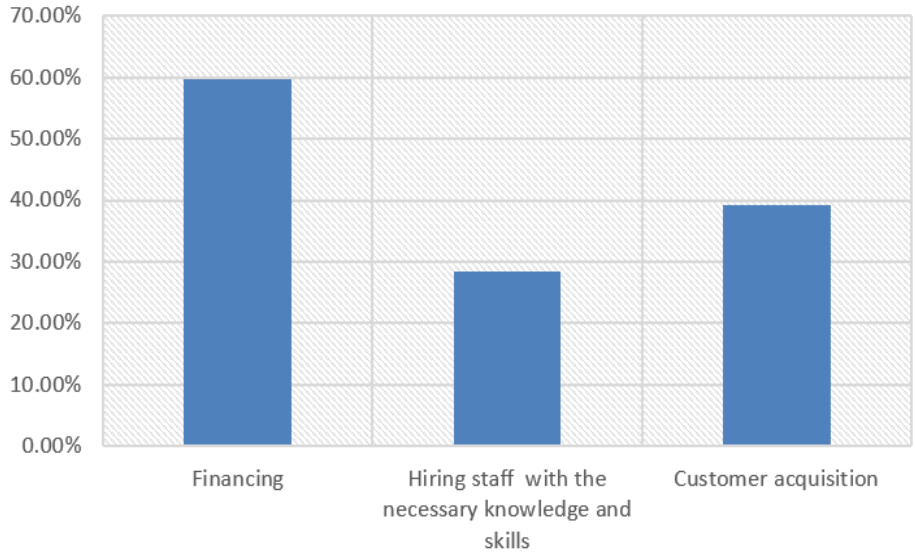

Fig. 2. The biggest challenges of startup companies in Serbia

4. THE ROLE OF BUSINESS INCUBATORS

Business incubators play a significant role in the development of startups, especially in the early stages of their operations. Their main function is to provide support through infrastructure, expertise, training and access to finance, thereby reducing initial risks and costs [15,16].

In addition, incubators contribute to the development of entrepreneurial skills, the improvement of business models and the connection of startups with stakeholders.

The Table1 shows the different types of support that business incubators provide to startups, as well as their key effects on the business. These include basic services, management support, training and workshops, financial support and networking. The table indicates that the value of incubators lies in their integrated support approach, which brings together several different mechanisms with the aim of increasing the success of startups.

Table 1. Types of incubator support for startups and their effects

Types of support	Main effects
Basic services (rental of office/space and appropriate equipment)	Reduction of initial costs
Management support (planning, management and marketing)	Improved business planning and development of entrepreneurial and managerial capabilities
Training and workshops	Acquiring knowledge
Financial support	Easier access to finance
Networking	Creating networks of contacts and finding strategic partnerships

The Figure3 shows the impact of business incubation programs across five key dimensions that include:

Innovation and technology transfer – incubators stimulate the development of innovations and enable the transfer of knowledge and technology, especially from academia to the business sector.



Fig. 3. Impact of Business incubator program

Attracting Investment – increasing the visibility of startups and facilitating access to investors and sources of financing.

Regional economic development – supporting local industries and strengthening the regional economy.

Social impact – contributing to community well-being and solving social problems.

Job creation and economic growth – employment and stimulating overall economic growth.

5. CONCLUSION

The analysis presented in this paper highlights that startups represent an important driver of innovation, employment, and economic growth, particularly in transition economies such as Serbia. The Serbian startup ecosystem has experienced significant expansion in recent years, reflected in both the increasing number of startups and the growth of its overall valuation.

However, despite these positive trends, startups in Serbia continue to face substantial challenges. These constraints highlight the need for a supportive environment that can reduce uncertainty and facilitate sustainable growth. Furthermore, the impact of business incubators extends beyond individual startups. They contribute to innovation and technology transfer, attract investments, support regional economic development, foster job creation, and generate broader social benefits. Nevertheless, their effectiveness depends on the alignment between the services provided and the actual needs of startups, as well as on the overall quality of the innovation ecosystem.

In conclusion, business incubators represent a significant support mechanism for the development of startups in Serbia. Strengthening their capacities, improving coordination with other ecosystem actors, and ensuring access to adequate financial and institutional support are essential steps for enhancing their impact. Future research could focus on empirical evaluation of incubator performance and comparative analysis with other support mechanisms in order to provide deeper insights into their effectiveness.

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6. REFERENCES

[1] Prelipcean, G., & Ungureanu, A. (2023). Entrepreneurship in Emerging Economies: The Role of Innovation and Institutions. *Chapters*. https://ideas.repec.org//h/ito/pchaps/297571.html

[2] Vujadinovic, J., Marjanović, D., & Premović, J. (2025). Resilience of startup companies in times of global crises: Adaptation strategies and success factors. In Global economic trends – Challenges and opportunities (pp. 71–75). Belgrade: Belgrade Banking Academy, Faculty of Banking, Insurance and Finance.

[3] Martielli, F., Laus, V., Salvi, A., & Kotaskova, A. (2024). Unlocking funding success: Intercultural entrepreneurship dynamics in European startups. *International Entrepreneurship and Management Journal*, *21*(1), 19. https://doi.org/10.1007/s11365-024-01038-5

[4] Pedrazzoli, A., Bongini, P., Rossolini, M., & Vismara, S. (2026). The role of decentralized and traditional entrepreneurial finance in startups financing: An analysis of ICO-funded startups. *Small Business Economics*, *66*(3), 1471–1493. https://doi.org/10.1007/s11187-025-01153-9

[5] Balakrishnan, R., & R., R. K. (2025). Entrepreneurial orientation and innovation performance: An empirical study of tech startups in emerging economies. *Journal of International Entrepreneurship*. https://doi.org/10.1007/s10843-025-00396-7

[6] Samara, E., Kilintzis, P., Carayannis, E. G., & Zotas, N. (2025). How Startups Can Decode Shifting Consumer Preferences in the Digital Era: Leveraging Behavioral Insights for Agile Business Model Innovation. *Journal of the Knowledge Economy*. https://doi.org/10.1007/s13132-025-02764-z

[7] Toroslu, A., Schemmann, B., Chappin, M. M. H., Castaldi, C., & Herrmann, A. M. (2025). The business of supporting open innovation: Drivers of value capture of business incubators across German

regions. *The Journal of Technology Transfer*. https://doi.org/10.1007/s10961-025-10283-x

[8] Noronha, C. L., & Pillai, S. K. V. B. (2025). Fostering startups through the vehicle of entrepreneurial support organisations like technology business incubators (TBIs): A systematic literature review. *Journal of Global Entrepreneurship Research*, *15*(1), 4. https://doi.org/10.1007/s40497-024-00419-y

[9] Gulia, D., Arora, S., & Sharma, A. (2025). Impact of incubation resources on agri-food startup performance: Insights from Indian incubatees. *Journal of Global Entrepreneurship Research*, *15*(1), 29. https://doi.org/10.1007/s40497-025-00447-2

[10] Yagüe-Perales, R. M., March-Chorda, I., & López-Paredes, H. (2024). Assessing the impact of seed accelerators in start-ups from emerging entrepreneurial ecosystems. *International Entrepreneurship and Management Journal*, *20*(2), 1323–1345. https://doi.org/10.1007/s11365-024-00956-8

[11] Mota, E., Kolympiris, C., Emvalomatis, G., & Klein, P. (2025). Bureaucratic constraints and investment attraction: How operational practices influence technology transfer performance in publicly funded business incubators. *The Journal of Technology Transfer*. https://doi.org/10.1007/s10961-025-10222-w

[12] Raeisy, L., Salimi, G., Safavi, S. A. A., & Mohammadi, M. (2025). Influencing factors of incubators and accelerators' success in entrepreneurship development: An integrative review. *Journal of Global Entrepreneurship Research*, *15*(1), 27. https://doi.org/10.1007/s40497-025-00452-5

[13] Startup Genome. (2024). Global Startup Ecosystem Report 2024. Startup Genome, https://startupgenome.com/reports/gser2024, viewed 20.04. 2026.

[14] Startup Blink. (2024). Global Startup Ecosystem Index 2024. Startup Blink, https://www.startupblink.com/startup-ecosystem-ranking, viewed 21.04. 2026.

[15] Digital Serbia Initiative. (2025). Startup Scanner 2025. https://www.preduzmi.rs/wp-content/uploads/2025/04/Startup-scanner-2025.pdf, viewed 10.04. 2026.

[16] Hakim, A. I., Sukimi, M. F., & Ab Rahman, A. H. (2024). Exploring the Role of Business Incubators to Sustainable Startups: A Systematic Literature Review. *PaperASIA*, *40*(5b), 307-320.

[17] Awonuga, K. F., Mhlongo, N. Z., Olatoye, F. O., Ibeh, C. V., Elufioye, O. A., & Asuzu, O. F. (2024). Business incubators and their impact on startup success: A review in the USA. *International Journal of Science and Research Archive*, *11*(1), 1418-1432.