



# Journal of Agronomy, Technology and Engineering Management ISSN 2620-1755

Review

# Management of the Entrepreneurial Ecosystem

Jovana Gardašević 1, Ivana Brkić 1,\* and Maja Kovačević 1

- <sup>1</sup> Faculty of Economics and Engineering Management in Novi Sad, University Business Academy in Novi Sad, Cvećarska 2, 21107 Novi Sad, Serbia.
- \* Correspondence: <u>ivana.j.milosevic@fimek.edu.rs</u>

Received: 14 December 2023; Accepted: 2 April 2024

**Abstract:** The subject of the paper is a literature review on the topic of entrepreneurial ecosystem management. Managing the entrepreneurial ecosystem refers to strategies, processes, and approaches that support the development and maintenance of an environment in which entrepreneurs can successfully operate. The entrepreneurial ecosystem comprises various components, including entrepreneurs, investors, mentors, educational institutions, technological resources, and regulatory bodies. All these components cooperate to create a stimulating environment for the development and growth of entrepreneurial activities. Managing the entrepreneurial ecosystem requires cooperation between the public, private sector, and civil society to create a sustainable environment that supports the development of entrepreneurship. The paper aims to provide insight into the academic literature review to all interested parties.

**Keywords:** Entrepreneurship; management; entrepreneurial ecosystem.

### 1. Introduction

Entrepreneurship experiences its first flourishing with the emergence of liberal capitalism, but in the 21st century, its wide application begins, mostly due to technological and information revolutions. Today, there is almost no person who has not encountered some form of entrepreneurial activity in their environment. The sector of small and medium-sized enterprises is gaining more and more importance because it is considered one of the main generators of the economy of developed and the economy of developing countries, especially those countries that are in the process of transition. Borders at the world level regarding the exchange of goods and trade are almost non-existent. The expansion of the use of information technologies with the possibility of working from home, holding remote meetings, online shopping, electronic payments, and the use of social networks, has given birth to a wide range of new occupations and given a chance to a large number of people to try their hand at entrepreneurial waters. Due to the turbulent environment with constant changes, privatization, deregulation, computerization, and globalization, large corporations are also forced to incorporate an entrepreneurial way of thinking into their operations in all organizational parts. It is no longer enough to satisfy customer needs in the best possible way, customers' needs must also be created. Buyers are increasingly cultivating partnerships with their sellers.

When talking about entrepreneurship, it is impossible to leave out innovation and creativity, because they represent the core of entrepreneurship. These terms almost always go hand in hand. There is no successful entrepreneur who is not innovative, has a creative way of thinking, and is ready to take risks. Entrepreneurs can turn the problem to their advantage, that is, what others see as a threat, they see as an opportunity. They possess the knowledge to use, control, and manage resources owned by others. Entrepreneurs accelerate changes in the economy, contribute to productivity, and create new jobs. Bearing in mind the above, the social context in which the entrepreneur operates is very important. The entrepreneurial ecosystem represents the systemic

action of the academic community, customers, government, suppliers, social groups, media, and non-governmental organizations, which influence the development of entrepreneurship. The State should invest funds to encourage entrepreneurship, which, according to the principle of the domino effect, is reflected in other factors of the ecosystem, considering the positive effects that arise from entrepreneurship.

Entrepreneurship will inevitably be part of the future of the modern economy and the global market. Businesses that operate locally will inevitably become part of an international business in some way. The changes happening around the world, especially in terms of limited resources and energy, require an innovative way of thinking possessed by entrepreneurs.

# 2. Entrepreneurship

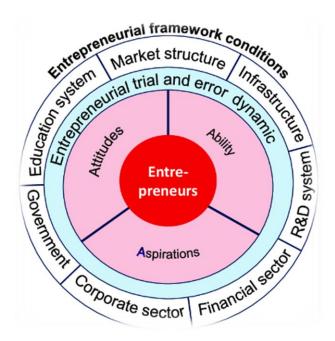
The concept of entrepreneurship implies behavior that includes taking initiative, organizing and reorganizing social and economic mechanisms and resources for practical purposes, and accepting risks and failures. Economists see an entrepreneur as a person who combines resources, to increase the value of goods, and then as a person who introduces changes, innovations, and a new order. The psychologist believes that such a person is driven by internal forces, i.e. the need to experiment, to achieve something, or to avoid someone else's authority. Business people perceive the entrepreneur as a threat, while other entrepreneurs see him as an ally, supplier, client, or person who creates wealth for others [1]. Natural, technological, and financial resources are no longer sufficient, if the organization does not have a built-in system of continuous learning and knowledge acquisition. Competitive advantages are increasingly realized through intangible assets. The planning system in organizations must be entrepreneurially oriented, they must have the ability to review and recompose resources and redefine the market. The organization must create teams of entrepreneurs and create partnerships with its employees. Employees who wait for instructions and perform routine tasks are less valued. The organization must innovate from the roots, to become entrepreneurial [2]. Social networks are completely changing the way people use the Internet, and thus influence the way of doing business as well as the thinking of entrepreneurs. The potential of social networks for the development of entrepreneurship is huge and very significant, and they represent fertile ground for the development of various entrepreneurial activities. The advantage of social networks is reflected in the fact that information about entrepreneurial activities around the world is available at the click of a button and that new potential entrepreneurs can easily innovate already existing entrepreneurial ventures that are available to them on social networks, and adapt them to their business conditions and environment. This fact greatly facilitates the first step, which is the planning of entrepreneurial activity. Also, the fact that it is easier to advertise your product and services to a wide audience of potential consumers is very significant, and it is now available to all entrepreneurs with the help of social networks because it does not require huge investments that are inherent in traditional marketing campaigns, which are available mainly to large companies [3].

#### 3. Entrepreneurial ecosystem

Entrepreneurial ecosystems have emerged as a popular concept to explain the existence of high-growth entrepreneurship in regions, focusing on the combination of environmental factors that play a role in influencing people's willingness and ability to undertake entrepreneurial activities. Start-up ecosystems are a set of cultural features, social networks, investment capital, universities, and active economic policies that together create an environment that supports innovation-based business. Due to the global financial crisis, dynamic environment, and diverse consumer needs, encouraging start-up entrepreneurship is even more important, as it is characterized by a high degree of flexibility. For example, start-ups make a significant contribution to job creation in the US, as 70% of new jobs come from start-ups, and those with strong growth dynamics have a particularly positive impact on GDP growth. At the same time, start-ups promote innovation, accelerate institutional change, and boost productivity by bringing new products to market. The competitive

advantage of start-ups depends on a multitude of factors related to academia, industry, government, and civil society. Factors influencing ecosystems are education and research, human capital, finance and financing, government interventions, business support, and connectivity [4].

By studying the literature on entrepreneurial ecosystems, it can be argued that there are many different models of entrepreneurial ecosystems, depending on the level at which the analysis is carried out. The elements of the entrepreneurial ecosystem are very complex, and one of the most important reasons for this is the fact that entrepreneurship plays a different role in different stages of development. One of the well-known and generally accepted models of entrepreneurial ecosystems is the entrepreneurial ecosystem of global entrepreneurship, authored by Zoltan Acs. The model developed by Acs with its colleagues enabled the development of the Global Entrepreneurship Index, which was designed to measure the quality of the entrepreneurial process in a specific country. What is very important for the concept of entrepreneurial ecosystems is that entrepreneurial ecosystems depend on the geographical location, which represents the context of entrepreneurial ecosystems and conditions their growth and development [5,6]. Figure 1 represents the elements of the entrepreneurship ecosystem.



**Figure 1.** Elements of the entrepreneurship ecosystem [7].

The entrepreneurial ecosystem refers to the collective and systemic action of all actors (entrepreneurs, other individuals, organizations, and institutions at the national level) aimed at encouraging and developing entrepreneurship. Given that the entrepreneurial ecosystem has a large number of actors, which are constantly supplemented, it is very difficult to list all the actors.

Institutions that support the entrepreneurial ecosystem are incubators and hubs, science and technology parks, and business accelerators [8]. Incubators and hubs represent a network of entrepreneurs who are connected with business partners, potential customers, investors, financiers, consultants, professionals, and other subjects, who help them in the initial stages of their development. Science and technology parks are aimed at small and medium-sized enterprises and focus on the promotion and exchange of knowledge, innovations, and ideas. The parks offer services for many educational and research institutions. Business accelerators offer support for the business development of already established startup companies. Along with the education and mentoring, they are offered incentives for further growth and development, and finding new investors [9].

Clusters are a type of networking that implies a set of economic activities of business entities, institutions, locally or regionally geographically concentrated, that have established formal or informal relations as well as the favor of the industrial sector through which they exchange

information, knowledge, and goods for the creation of a common product. Cluster activities are based on togetherness, concentration, and connectivity. The main advantages are better access to employees and suppliers, specialized information, institutions, and public goods, better motivation, and easier implementation of measures and replenishment as a result. It is not necessary to build businesses on cluster platforms or other solutions such as public-private partnerships, but it is extremely important to look at the tendencies of human needs, market opportunities, personnel, technological and investment equipment, and legal mechanisms that work. Some of the businesses that have a good business perspective are ecological agriculture, health tourism, recycling businesses, alternative energy sources, educational entrepreneurship, software applications, care services for the elderly, housing construction, and real estate transactions [10,11].

Despite a large number of participants, the entrepreneurial ecosystem in the Republic of Serbia is poorly developed, because they lack a greater degree of organization and support [12]. Some of the institutions that offer support for the development of entrepreneurship in Serbia are: the Research and Development Center of the Faculty of Organizational Sciences in Belgrade, Science and Technology Park Belgrade was established in partnership with the Government of the Republic of Serbia, the City of Belgrade and the University of Belgrade, "StartIT" (focused on the IT sector), "ICT HUB" (oriented towards the development of technological entrepreneurship), "Impact hub" (a network of individual hubs in different cities around the world), "Nova Iskra" (the first creative hub in the Balkans), "BITF" (founded by four technical faculties of the University of Belgrade, civil engineering, mechanical engineering, electrical engineering, technology-metallurgy), "SeVen" (an association dedicated to the development of startups and the entrepreneurial ecosystem in Serbia and Southeast Europe), "StartLabs" (an American fund that invests in startups in Southeast Europe).

The Republic of Serbia is characterized as a post-socialist transitional economy with certain peculiarities of the national culture that are not conducive to the development of entrepreneurial awareness and entrepreneurship. Although it seems nonsense to advocate an entrepreneurial climate, in transitional economies (challenges of high corruption, the impossibility of adequate business financing, mistrust in the financial sector, administration and rigid bureaucracy, and other challenges and limitations) and economies characterized by certain features of national culture, for example a low index of individualism (adherence to groups) or a high index of uncertainty avoidance (intolerance to risk), on the way to a market economy, the question of the importance of entrepreneurship for the overall economic development and prosperity of a nation must be taken into account [13,14].

Entrepreneurship is a process that requires constant improvement of products, services, and business models, and it is in entrepreneurial ecosystems, through interaction with other participants of entrepreneurial ecosystems, that entrepreneurs can progress and create new values. It is very important to point out that entrepreneurial ecosystems are systems that support different business models in all phases of the company's life cycle. Certainly, the role of digitization in entrepreneurial ecosystems is undeniable [15].

# 4. Management in entrepreneurship

There are conflicting views on the understanding of the role of entrepreneurs and management. Some believe that the two concepts are intertwined, while others emphasize a clear difference between them. An entrepreneur is someone who is focused on process effectiveness, while managers are focused on business efficiency. Entrepreneurs are innovators and are not afraid of taking risks, while managers are business organizers and take care that resources are used most efficiently, to achieve profit maximization. In the reality that surrounds us, it is impossible to make a clear division between entrepreneurs and managers, considering that every entrepreneur must possess more and more managerial qualities and vice versa - managers must be more creative and have business visions. The entrepreneur is the original owner of the economic entity, and the manager is the derivative entrepreneur who makes strategic and operational decisions. The entrepreneur can

manage the entire business himself or delegate this function to a manager who is paid for it. The manager deals with the analysis of the market situation, the introduction of innovations, profitability, and productivity issues, company assets, public responsibility issues, environmental issues and the development of management systems, human capital, and company development. From this, it can be seen that the terms entrepreneurship and management are in continuous interaction, that they intertwine with each other, and are often combined into a synthetic term entrepreneurial management [7].

With the ever-increasing growth of companies and especially the development of the technical division of labor, the originally broadly conceived entrepreneurship begins to be divided in practice. On one side, in that division, stands the owner of resources - money, capital, knowledge - who expresses determination to invest them in a certain activity so that it can be fertilized and multiplied, i.e. increase the capital. He freely chooses the area of investment, bank, industry, trade and other, partnership or joint-stock company. The choice of factors, work, and business processes, their combination, cooperation, management, leadership, organizational technological organization, and control is entrusted to other, qualified experts, and managers who deal with it professionally. Owner-entrepreneur remains in charge of ownership management, i.e. ownership supervision. Therefore, with the development of a class society, along with the transformation of relations and forms of ownership, there were also changes in the holders of the functions of ownership, management, leadership, execution, and their place in the unique production and business process [16]. The success of the business depends on how well the entrepreneur and his management team fit together and complement each other with their knowledge. This is also of great importance for potential investors and creditors because they want to know what kind of projects they are investing in [17]. The entrepreneur and his management team must have experience and knowledge in the economic branch in which the company operates, as well as knowledge about the strategy of market performance. They work together on planning and designing strategies and managing the production process [18].

#### 5. Conclusion

Business giants and large corporations with traditional management methods are slowly becoming a thing of the past, and small and medium-sized enterprises are taking more and more market share in the world economy. It is undeniable that the influence of large companies is still present but on a smaller scale, and they are forced to introduce an entrepreneurial organizational culture and enter into alliances and partnerships with smaller companies. Knowledge as a resource becomes the greatest wealth and only those who continuously learn and improve are successful. It is necessary to foster teamwork and an innovative way of thinking. Innovations bring changes in all aspects of human life. It is impossible to survive in the modern turbulent environment if changes are not created. The Republic of Serbia, as a country that is still going through the process of transition, does not yet have a sufficiently developed system for the full development of entrepreneurship. The entrepreneurial ecosystem in our country, compared to developed countries, is very poorly developed, because it lacks support and organization from institutions. What is positive are the incentives that the state has recently invested in the development of entrepreneurship, and this is particularly pronounced in female entrepreneurship. Bearing in mind that entrepreneurship is an abstract concept and that it is almost impossible to formulate it using a mathematical model, there is no exact formula for achieving success achieved by entrepreneurs. Education is one of the most important prerequisites, but it does not guarantee business success. Persistence, determination, teamwork, focusing attention on others, creativity, innovation, willingness to take risks, take action, and constant improvements are certainly the characteristics of an entrepreneur. It is impossible to expect that everyone will be an entrepreneur because not all of us have the skills and ambitions for our own business, and human civilization functions in such a way that even behind the entrepreneur there must be a team of people who work. What everyone can apply in their field of action is an entrepreneurial way of thinking, and above all, they mean teamwork, taking responsibility for their

actions, initiative, self-sacrifice, listening carefully to colleagues, accepting criticism, and giving advice. Therefore, we can all be "small entrepreneurs" and thereby do something of quality and good for our own, and for future generations to come.

Conflicts of Interest: The authors declare no conflict of interest.

#### References

- Khanin, D.; Rosenfield, R.; Mahto, R.V.; Singhal, C. Barriers to Entrepreneurship: Opportunity Recognition vs. Opportunity Pursuit. Rev Manag Sci 2022, 16, 1147–1167, doi:10.1007/s11846-021-00477-6.
- 2. Bhatti, S.H.; Santoro, G.; Khan, J.; Rizzato, F. Antecedents and Consequences of Business Model Innovation in the IT Industry. *Journal of Business Research* **2021**, *123*, 389–400, doi:10.1016/j.jbusres.2020.10.003.
- 3. Faber, R.J.; Lee, M.; Nan, X. Advertising and the Consumer Information Environment Online. *American Behavioral Scientist* **2004**, *48*, 447–466, doi:10.1177/0002764204270281.
- 4. Ziakis, C.; Vlachopoulou, M.; Petridis, K. Start-Up Ecosystem (StUpEco): A Conceptual Framework and Empirical Research. *Journal of Open Innovation: Technology, Market, and Complexity* **2022**, 8, 35, doi:10.3390/joitmc8010035.
- 5. Malecki, E.J. Entrepreneurship and Entrepreneurial Ecosystems. *Geography Compass* **2018**, *12*, e12359, doi:10.1111/gec3.12359.
- Audretsch, D.B.; Belitski, M. Entrepreneurial Ecosystems in Cities: Establishing the Framework Conditions. J Technol Transf 2017, 42, 1030–1051, doi:10.1007/s10961-016-9473-8.
- Ács, Z.J.; Szerb, L.; Lafuente, E.; Lloyd, A. The Entrepreneurial Ecosystem. In *Global Entrepreneurship and Development Index 2018*; SpringerBriefs in Economics; Springer International Publishing: Cham, 2018; pp. 1–9 ISBN 978-3-030-03278-4.
- 8. Pustovrh, A.; Rangus, K.; Drnovšek, M. The Role of Open Innovation in Developing an Entrepreneurial Support Ecosystem. *Technological Forecasting and Social Change* **2020**, *152*, 119892, doi:10.1016/j.techfore.2019.119892.
- 9. Bliemel, M.; Flores, R.; De Klerk, S.; Miles, M.P. Accelerators as Start-up Infrastructure for Entrepreneurial Clusters. *Entrepreneurship & Regional Development* **2019**, *31*, 133–149, doi:10.1080/08985626.2018.1537152.
- 10. Boiko, V. Green Tourism as a Perspective Direction for Rural Entrepreneurship Development. In; Lviv-Toruń: Liha-Pres, 2020 ISBN 978-966-397-189-6.
- 11. Xue, L.-L.; Shen, C.-C. The Sustainable Development of Organic Agriculture: The Role of Wellness Tourism and Environmental Restorative Perception. *Agriculture* **2022**, *12*, 197, doi:10.3390/agriculture12020197.
- 12. Talić, M.; Stefanović, S. Ecosystem of Social Enterprises A Comparative Review of the Practice of European Countries and the Republic of Serbia. *Economic Themes* **2022**, *60*, 369–385.
- Gardašević, J.; Brkanlić, S.; Kostić, J. Entrepreneurship, National Culture and the Republic of Serbia. Ekon: teor praks 2020, 13, 85–96, doi:10.5937/etp2001085G.
- 14. Vapa Tankosić, J. Agri-Environmental Climate Measures in the Serbian Agricultural Policy in Relation to the Common Agricultural Policy. *J Agron Technol Eng Manag* **2023**, *6*, 958–964, doi:10.55817/HBNT7451.
- Saeedi, R. Ecological Value Creation: A Novel Economic Paradigm of Interactions in Business Ecosystems. World Futures 2023, 79, 320–346, doi:10.1080/02604027.2022.2094196.
- Cordeiro, J.J.; Profumo, G.; Tutore, I. Board Gender Diversity and Corporate Environmental Performance: The Moderating Role of Family and Dual-Class Majority Ownership Structures. *Business Strategy and the Environment* 2020, 29, 1127–1144, doi:10.1002/bse.2421.

- 17. Akinshipe, O.; Aigbavboa, C. Foreign Direct Investment for Construction: The Scope Under Sino-African Relations. *J Agron Technol Eng Manag* **2022**, *5*, 718–731, doi:10.55817/RLEQ2937.
- Chang, V.; Baudier, P.; Zhang, H.; Xu, Q.; Zhang, J.; Arami, M. How Blockchain Can Impact Financial Services The Overview, Challenges and Recommendations from Expert Interviewees. *Technological Forecasting and Social Change* 2020, 158, 120166, doi:10.1016/j.techfore.2020.120166.



© 2024 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).