

THE IMPACT OF ENTREPRENEURIAL ECOSYSTEM EMERGENCE ON RURAL ECONOMIC DEVELOPMENT

Sergei Polbitsyn

Abstract

The goal of our study is to determine the most significant factors that must be placed into the foundation of the rural entrepreneurial ecosystems. This challenge of rural entrepreneurial ecosystem emergence is significant for Russia.

Our study determined the conceptual foundations of rural sustainable development. We stage the concept of the rural entrepreneurial ecosystem as a system built on the principles of public-private partnership. Particular attention is given to the mechanism of interaction and coordination among federal and local administrations and commercial organizations engaged in food production in rural areas.

The results show that despite a highly centralized economic policy in the Russian Federation, regional food security and rural development can be achieved by encouraging local authorities and entrepreneurs to take on more responsible and active role in increasing living standards of rural population.

The study helps in developing a comprehensive understanding of inter-relationships of entrepreneurship and economic development of rural territories and provides significant insights related to ways to improve living standards of rural inhabitants.

Key words: entrepreneurial ecosystem, rural development, agriculture, Russia

JEL Code: R11, O38, Q18

Introduction

Rural and urban entrepreneurial ecosystems are significantly different. Entrepreneurs working in rural areas operate in environment that is dramatically different from the urban environment. They are constantly faced with a high level of uncertainty and unpredictability of development not only of their enterprise, but also of other enterprises operating in the same territory. This state of high uncertainty creates the prerequisites for cooperation and serves as a motivation for creating a systemic connection between rural entrepreneurs within the framework of the entrepreneurial ecosystem of the rural territory (Bosworth, 2012).

Unlike the urban entrepreneurial ecosystem, rural ecosystem is based on food production, which determines the intellectual development of production forces, technology and the economic organization of production, and its distribution system (Iancu et al., 2016).

Rural entrepreneurship, as a special type of entrepreneurship, is currently receiving increasing attention in all countries. At the national level, it is recognized that the development of rural territories, in contrast to urban areas, will depend on the creation of a special rural entrepreneurial ecosystems. Moreover, the importance of sustainable development of rural entrepreneurial ecosystems goes far beyond just economic issues. Rural society is perceived not only by scientists, but also by politicians as the bearer of the cultural heritage and identity of the peoples of Russia, and therefore the sustainable development of rural ecosystems is positioned as one of the priority areas of the Russian government. The problem of the formation and development of rural entrepreneurship is most significantly manifested in the post-Soviet space, where the historical development of small business turned out to be open. In Russia, issues of the formation of a rural ecosystem remain unresolved and require urgent attention (Polbitsyn, 2017).

In the last decade, the concept of the entrepreneurial ecosystem has attracted the attention of numerous researchers (Spigel & Harrison, 2018). But, despite the growing interest in entrepreneurial ecosystems in general, little, almost negligible attention is paid to rural entrepreneurial ecosystems. With a deep study of the laws of entrepreneurship development, including the entrepreneurial ecosystem, nevertheless, a concept for the development of the entrepreneurial ecosystem of rural territories has not been created, which allows us to determine a practically feasible model of its effective formation and development (Kalantaridis, Labrianidis, & Vassilev, 2007).

1 Research theory

Analyzing rural entrepreneurship and agricultural production over the XX century, necessary to highlight the trends of standardization and industrialization of agri-food production, which have led to the standardization of food on a global scale. The standardization of agri-food production, built on in-line, large-scale production, creates competitive advantages for large, usually global, agricultural companies and reduces the competitiveness of small businesses, which historically (with the exception of certain historical periods of individual countries) formed the basis of agricultural production (Ritzer, 1996).

The transformation of agri-food production ultimately affected the structure of the rural economy, which became less entrepreneurial, less built on the principles of adaptation to natural conditions, more built on the immoderate use of agricultural technologies, which allowed the introduction of new industrial, continuous forms of agricultural production in order to increase its performance and profitability (Mann, 1990).

The use of industrial, in-line forms of agricultural production has led to the development of profound differences in food produced in the traditional way and products produced using modern in-line technologies. Consumer qualities of food traditionally produced in traditional and industrialized practices are not comparable. Natural processes that underlie the traditional agricultural production cannot be standardized, technologized and organized as in-line, conveyor production. For this reason, large technological producers are striving to replace natural agricultural production with artificial production, which, in their opinion, can reduce risks and increase the profitability of investments. This led to the widespread use of substitute goods instead of natural food, the characteristics of which instead of utility indicate harmlessness (Watts & Boyd, 1997). The vocalization of this problem leads us to understanding of the necessity of the development of rural entrepreneurial systems able to withstand the current negative trends of agricultural production.

The concept of the formation of an entrepreneurial ecosystem in rural areas can be based on the theory of endogenous growth (Romer, 1994), which supports the explanation of the diversity in the development of territories through the diversity of resources and accumulated knowledge. Romer's theory allows, as applied to entrepreneurial ecosystems at the regional level, to identify regional capabilities for the development through the linkage between its resources. According to the provisions of Romer's theory as applied to the activity of entrepreneurial systems, the main priority should be paid to the population, to the satisfaction of its nutritional needs, therefore, the formation of entrepreneurial ecosystems in rural regions should occur within the framework of the evolutionary development of existing regional and local models of rural economic systems.

The activities of entrepreneurs occur within the institutional field of the ecosystem, therefore, differences in the efficiency of entrepreneurship in different spatial ecosystems can be explained not only by differences in entrepreneurial skills, but also by differences in the organization of entrepreneurial ecosystems (Solodilova, Malikov, & Grishin, 2018), including in different rural areas.

This remark demonstrates the need to study rural entrepreneurship in the framework of the institutional concept of the rural entrepreneurial ecosystem. It is suggested that the basis for

the implementation of the rural entrepreneurial ecosystem is the formation and development of an efficiently functioning food market, as well as the sustainable development of rural areas.

The role and importance of entrepreneurship as a fundamental institution in the modern global agri-food system over the past twenty years has grown steadily. More and more researchers are inclined towards the paradigm of rural entrepreneurship as the most important driving force for the development of rural socio-economic systems (Gladwin et al., 1989).

The level of uncertainty of the development of rural business systems is significantly higher than of urban ecosystems. Rural entrepreneurship is hindered by several factors that can not only restrain its development, but also in some cases lead to a recession and degradation of regional socio-economic development. In our study, we aim to determine the most significant factors that negatively impact on the development of the rural entrepreneurial ecosystem.

2 Data and Methods

The study is a framework project that can be implemented in the context of any rural entrepreneurial ecosystem due to its focus on identifying territorial factors that reduce the effectiveness of both individual entrepreneurs and the rural entrepreneurial ecosystem. The project started more than 10 years ago and first results were already published (Polbitsyn, 2019). The current research has the purpose to identify trends of the Russian rural entrepreneurship.

Typologically, factors are proposed to be divided into groups of internal and external factors. (Ajata, Nina, & Erazo, 2020). Based on the proposed classification in the framework of this study, the effect of nine negative factors was studied:

1. Lack of support from local and regional authorities. In our opinion, the local and regional administration should have a clearly formulated position on supporting rural entrepreneurship;
2. Lack of marketing information. Rural entrepreneurs very often do not have access to reliable marketing information. Imperfection of information infrastructure limits their access to reliable sources of marketing information necessary for the effective development of enterprises;
3. Lack of technological information,
4. Limited financial resources,
5. The high cost of innovation,
6. High risk of innovation,
7. Long payback period for investment projects,
8. Lack of qualified personnel,
9. Immunity of employees to innovations.

The research model was developed in the form of a survey of entrepreneurs; the aim of the study is to find out how significant is the negative impact of these factors on the efficiency of enterprises. The questionnaire was compiled using the Likert scale from “completely disagree” - 1, to “completely agree” - 5. The obtained values were considered as continuous quantitative data, which made it possible to use the Student test to verify the reliability of the results, as the most acceptable for such an analysis.

Based on the full list of agri-food enterprises in the region (Agrobaza, 2020). The survey was conducted by telephone among rural entrepreneurs of the Ural region. The total number of respondents was 40 people.

3 Results

Table 1 shows the results of data processing for 2019. As can be seen from the table, the values of the confidence intervals allow us to consider the obtained average values for the sample as the average value of the whole set. For other years of the study, similar results of statistical significance were obtained, which were omitted by the author in the proposed article. The survey results are presented graphically in Figure 1.

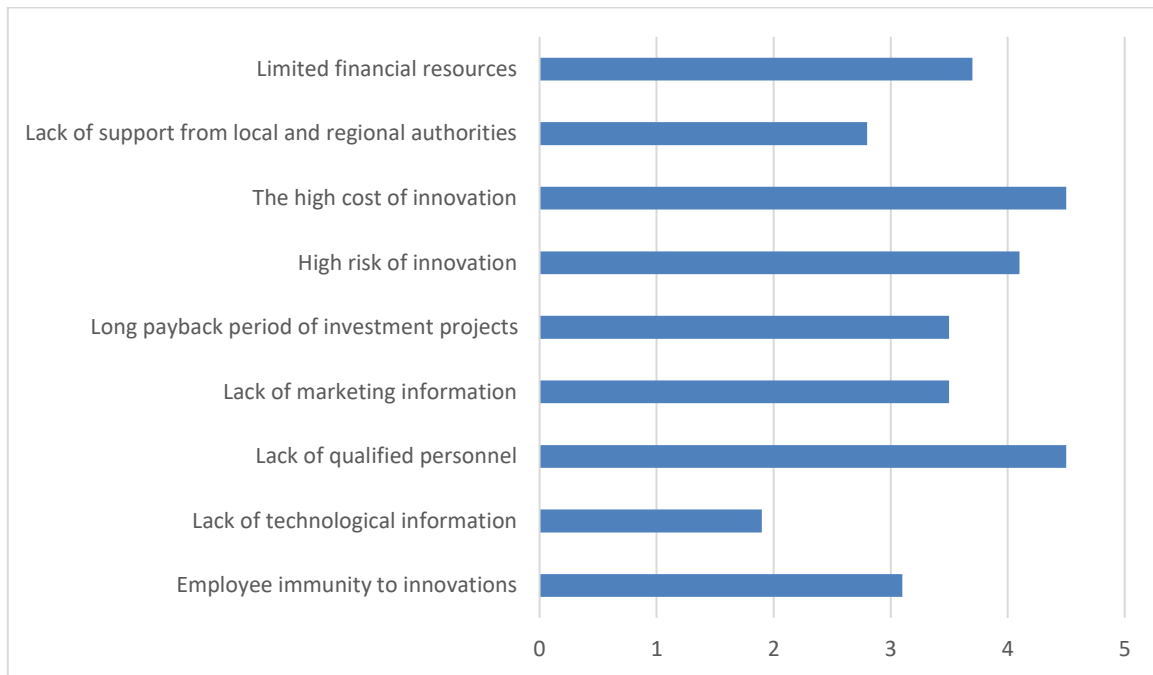
Tab. 1: Student’s T-Test Results

Factor	Number	Mean	Standard error	Standard distribution	95% confidence interval	
Employee immunity to innovations	40	3.1	.271	1.243	2.627	3.673
Lack of technological information	40	1.9	.222	1.144	1.557	2.443
Lack of qualified personnel	40	4.5	.116	.655	4.345	4.855
Lack of marketing information	40	3.5	.181	1.081	2.788	3.512
Long payback period of investment projects	40	3.5	.214	1.123	2.861	3.839
High risk of innovation	40	4.1	.271	1.243	3.627	4.373
The high cost of innovation	40	4.5	.231	.647	4.376	4.924
Lack of support from local and regional authorities	40	2.8	.193	.687	2.186	2.584

Limited financial resources	40	3.7	.232	.103	3.561	4.439
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Source: author's calculations

Fig. 1: Factors, constraining the effectiveness of rural entrepreneurs



Source: author's calculations

The survey described the Russian entrepreneurship as still growing, not matured yet. Entrepreneurs believe that entrepreneurial activities can occur within their firm, based solely on internal resources, primarily intellectual ones. That is why the interviewed entrepreneurs noted that their employees do not have the required qualifications for organization of entrepreneurial activities. Respondents concluded that it is necessary to attract qualified employees, but the existing organizational model of the enterprise is not questioned, it remains closed and inaccessible to external contacts and impact.

Respondents stay on the position that entrepreneurship activities must be founded on the same principles as any other type of commercial activity: means of production should be owned by firms and results of economic activity are wholly owned by entrepreneurs themselves. It works for ordinary, routine production activities, when means of production are fixed assets, but for innovation activities, when means of generating innovations are the knowledge and skills of external researchers and developers, results must be distributed among all parties. Unfortunately, respondents rejected this assumption.

The attitude of respondents to resources of entrepreneurial activities has emerged in the twentieth century and even earlier, when resources were completely in the possession or disposal of entrepreneurs, no longer match the current model of entrepreneurship.

As a result, there are obstacles to the entrepreneurs in rural Russia. A single entrepreneur does not have enough resources for the development and cannot act as a “growing point” to provide a breakthrough of regional economic development, as regional authorities in Russia are used to expect.

Conclusion

To conclude we state that the theory of endogenous development is competent to describe development processes of the rural entrepreneurial ecosystem development. Indeed, the capabilities of entrepreneurial ecosystems are determined mostly by internal factors of rural regions, and therefore, support for rural entrepreneurs should be directed to improve institutional, economic and social attributes of rural entrepreneurial ecosystems that give a positive impact in any ecosystem development scenario.

The inquiry into factors that excise a negative impact on the development of the entrepreneurial ecosystem included the survey of rural entrepreneurs, that convincingly proved that rural entrepreneurs are confident that the future development of their enterprises is mostly dependent on internal factors, and therefore they realize the need to develop the internal capabilities of enterprises, both technological and organizational.

Most respondents consider that all resources necessary for entrepreneurship activities, primarily intellectual, must be in their possession, believing that the involvement of third-party specialists in building a business can lead to the loss of confidential information. This sentence requires to develop new attitude of entrepreneurs to resource management.

Also should be noted that rural entrepreneurs rely on their own resources and opportunities in relation to state authorities and local self-government. Despite the proclaimed state support for rural entrepreneurship, rural entrepreneurs do not perceive the state as a strategic partner.

The author argues that the incorrect perception by entrepreneurs of the business development model that is adequate to modern conditions for the development of the entrepreneurial ecosystem leads them to reduce the effectiveness of both individual enterprises and the entrepreneurial ecosystem of rural regions. In the context of the current situation,

informational support of rural entrepreneurship by the state and local governments is becoming paramount, which will help to form the institutional field of rural business systems and following research must be aimed on the development of rural information systems.

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References

- Agrobaza (2020). *List of agricultural enterprises of the Urals Federal District of the Russian Federation*. <https://www.agrobaza.ru/selxozpredpriyatiya/rossiya/ufo>
- Ajata, L. M. P., Nina, D. A., & Erazo, N. S. (2020). The Determinants of Entrepreneurship. A Theoretical Approach and its Application. *Revista Inclusiones*, 7, 20-33.
- Bosworth, G. (2012). Characterising rural businesses – Tales from the paperman. *Journal of Rural Studies*, 28(4), 499-506. doi:<https://doi.org/10.1016/j.jrurstud.2012.07.002>
- Gladwin, C. H., Long, B. F., Babb, E. M., Beaulieu, L. J., Moseley, A., Mulkey, D., & Zimet, D. J. (1989). Rural Entrepreneurship - one Key to Rural Revitalization. *American Journal of Agricultural Economics*, 71(5), 1305-1314. doi:10.2307/1243127
- Iancu, A., Popescu, L., Vasile, T., Popescu, V., Amier, & Academia. (2016). Rural Entrepreneurship - the Pathway from Subsistence to Sustainability of Rural Areas in Romania. *Proceedings of the 5th Review of Management and Economic Engineering International Management Conference*, 320-326.
- Kalantaridis, C., Labrianidis, L., & Vassilev, I. (2007). Entrepreneurship and institutional change in Post-socialist rural areas: Some evidence from Russia and the Ukraine. *Journal for East European Management Studies*, 12(1), 9-34.
- Mann, S. (1990) *Agrarian Capitalism in Theory and Practice*. Chapel Hill: University of North Carolina Press
- Polbitsyn, S. N. (2017). Rural Entrepreneurship as a Driving Force for Regional Development. *Proceedings of the 11th International Days of Statistics and Economics*, 1245-1252
- Polbitsyn, S. N. (2019). Russia's Rural Entrepreneurial Ecosystems. *Ekonomika Regionalnaya Economy of Region*, 15(1), 298-308. doi:10.17059/2019-1-23
- Ritzer, G. (1996). The McDonaldisation thesis: Is expansion inevitable? *International Sociology*, 11(3), 291-308. doi:10.1177/026858096011003002

- Romer, P. M. (1994). The Origins of Endogenous Growth. *Journal of Economic Perspectives*, 8(1), 3-22. doi:10.1257/jep.8.1.3
- Solodilova, N. Z., Malikov, R. I., & Grishin, C. E. (2018). Configuration Approach to Researching Regional Entrepreneurial Ecosystems. *Ekonomicheskaya Politika*, 13(5), 134-155. doi:10.18288/1994-5124-2018-5-134-155
- Spigel, B., & Harrison, R. (2018). Toward a process theory of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, 12(1), 151-168. doi:10.1002/sej.1268
- Watts, M., & Boyd, W. (1997). Agro-industrial just-in-time: the chicken industry and post-war American capitalism. In D. Goodman (Ed.), *Globalising Food: Agrarian Questions and Global Restructuring*, 1-34

Contact

Sergei Polbitsyn
Institute of Economics and Management
Ural Federal University
ul. Mira, 19, Yekaterinburg, Russia, 620002
Institute of Economics
Ural Branch of RAS
Ul. Moskovskaya, 29, Yekaterinburg, Russia, 620014
s.n.polbitsyn@urfu.ru