THE ROLE OF TRADITIONAL AGRICULTURE IN DEVELOPING RURAL ENTREPRENEURIAL ECOSYSTEM

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Abstract

Traditional agriculture is based on extensive farming systems and methods that are unique to certain locations and are considered the main livelihood strategies for rural communities. Understanding these nuances can enhance rural entrepreneurial ecosystems. Our study provides novel conceptual underpinnings that link traditional agriculture and the rural entrepreneurial ecosystem. We claim that traditional agriculture must be treated as a mandatory element of the rural entrepreneurial ecosystem. This paper aims to clarify the place of traditional agriculture in the classification of entrepreneurial activities, and to conceptualize a systems approach for future research on the topic. Bibliographic analysis is combined with a systematic content analysis to develop a deeper state-of-the-art understanding of the picture. We determine the critical characteristics of traditional agriculture in developed and developing economies and how they influence the rural entrepreneurial ecosystem. Our primary goal is to identify different actors in the development of the rural entrepreneurial ecosystem. Based on the theoretical foundation of the study, we develop a conceptual framework of traditional and innovative practices that lead to prosperity of rural communities.

Keywords: entrepreneurial ecosystem, traditional agriculture, practices of rural development, New Zealand, Russia

JEL Code: Q13, R11

Introduction

Rural and urban entrepreneurial ecosystems differ significantly because of their respective institutional conditions. Entrepreneurs working in rural areas constantly face uncertainty and unpredictability of the development of not only their company, but other enterprises operating in the same territory. This creates the prerequisites for cooperation and serves as a motivation for creating a systemic link between rural entrepreneurs within the framework of a business ecosystem of a rural area (Figueroa-Armijos, Dabson, & Johnson, 2012).

In contrast to the urban entrepreneurial ecosystem, food is at the core of rural entrepreneurial ecosystems. Indeed, food determines the intellectual development of productive forces, technology and economic organization of production, and the system of its distribution. Further, food is an important feature of traditional agriculture because the motivation for intensive food production can help to develop livelihood strategies for rural communities. One of the key challenges for the sustainable development of rural entrepreneurial ecosystems is the ability of actors in traditional agriculture to generate entrepreneurial capacity (Faria and Mixon, 2016).

Entrepreneurial capacity among rural entrepreneurs can be generated through technological advancements within a particular territory (Faria and Mixon, 2016). The level of agrotechnology development achieved at the present stage is the foundation for the development of the national socio-economic system, which determines the significance of the rural entrepreneurial ecosystem for the country. The ability of traditional farmers to generate and absorb knowledge regarding innovative agrotechnology can be a significant resource to develop rural entrepreneurial ecosystems.

Rural entrepreneurship is currently receiving increasing scholarly attention (Bosworth & Turner, 2018). At the state and inter-state levels, it is recognized that the development of rural areas, in contrast to urban areas, will depend on the creation of a particular rural entrepreneurial ecosystem (Bosworth & Turner, 2018). Moreover, the importance of the sustainable development of rural entrepreneurial ecosystems goes far beyond mere economic problems. Rural society is perceived not only by scientists but also by politicians as the bearer of cultural heritage and identity of the people in developed and developing economies; therefore, the sustainable development of rural ecosystems is a government priority. It can be argued that the development opportunities of the rural entrepreneurial ecosystem determine the development possibilities of the national socio-economic system (Lawrence, Lyons, & Wallington, 2010).

In the last decade, the attention of numerous researchers has been drawn to the concept of an entrepreneurial ecosystem (Acs, Estrin, Mickiewicz, & Szerb, 2018). But though there has been growing interest in entrepreneurial ecosystems in general, little attention has been paid to rural entrepreneurial ecosystems. Despite deep study of the laws governing the development of entrepreneurship, including the entrepreneurial ecosystem, the concepts underlying the development of an entrepreneurial ecosystem in rural areas have not been explored, and thus, it is not possible to determine a feasible model for its effective formation and development (Kalantaridis, Labrianidis, & Vassilev, 2007).

Against this background, we examine the link between traditional agriculture and rural entrepreneurial ecosystems. We argue that traditional agriculture must be treated as a mandatory element in the development of a rural entrepreneurial ecosystem. As we will argue in the context of Russia and New Zealand, traditional agriculture practices and knowledge combined with innovative practices of urban entrepreneurs can provide a stable platform for the development of rural entrepreneurial ecosystems. We illustrate this link through a conceptual framework that shows how features of traditional agriculture and innovative practices can be detrimental for rural entrepreneurial ecosystems in both developing and developed economies.

The rest of the paper unfolds as follows. First, we discuss the theoretical foundation of the study, where we provide an overview of traditional agriculture and transformation of the rural entrepreneurial ecosystem. We then develop a conceptual model to provide insights into how we can move toward a sustainable rural entrepreneurial ecosystem. This is followed by a discussion and conclusion.

1 Theoretical foundation

1.1 Traditional agriculture

Traditional agriculture is characterized by long-established routines with respect to all production activities. These routines developed as a result of conservatism that is built into family farms and carried through generations. This has helped to develop a sense of conformity with existing rules among farmers, which is another characteristic of traditional agriculture. Although this conformity is a given in traditional agriculture literature, the behaviors of individuals are motivated by uncertainty and disagreement among members of the same community (Johnson, 1972). This is because the key purpose of traditional agriculture is to provide security for rural communities, and the behaviors and actions of individuals, not necessarily in conformity with the rules, can enhance that sense of security. This is a crucial feature of traditional agriculture because it illustrates the ability of farmers to learn and adapt to different conditions. Ability to learn can help traditional agriculture toward general entrepreneurial capabilities (Faria and Mixon, 2016).

Undoubtedly, traditional agriculture methods served their purpose of providing a livelihood for rural communities. Traditionally, farmers have been characterized for their

inability to deviate from long-established routines, but this assumption is somewhat oversimplified. We argue that long-established routines and norms that define traditional agriculture are key drivers in developing agriculture because they help to generate nuanced knowledge about the rural ecosystem. Therefore, to develop agriculture in rural areas, there is no need to deviate from established traditions, but there is, however, a need to capitalize on these traditions and integrate them into continuously developing agricultural practices.

1.2 Transformation of rural entrepreneurial ecosystems

In studying the trends in the development of rural entrepreneurship and agricultural production over the last century, it is necessary to highlight trends in the standardization and technologization of agrifood production, which have led to the standardization of food on a global scale. The standardization of agrifood production, built on continuous, 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 in individual countries) formed the basis of agricultural production (Ritzer, 1996).

The transformation of agrifood production ultimately affected the structure of the rural economy, which became less entrepreneurial, less built on the principles of adaptation to natural conditions, and more built on the immoderate use of agricultural technologies, which made it possible to introduce new industrial forms of agricultural production to increase performance and profitability.

The use of industrial production forms of agricultural production has led to the development of deep differences in food produced in the traditional way and products produced with the help of modern production technologies. The consumer qualities of food produced in traditional and continuous ways are incomparable. Natural processes underlying traditional agricultural production cannot be standardized, technologized and organized as in line, conveyor production. For this reason, large technological producers seek to replace natural agricultural production with artificial production, perceived as reducing risks and increasing the profitability of investments. This has led to the widespread use of substitute goods instead of natural food, the characteristics of which include harmlessness instead of utility (Watts & Boyd, 1997).

The concept of formation of an entrepreneurial ecosystem in rural areas could be based on Romer's (Romer, 1994) theory of endogenous growth, which explains diversity in the development of territories in terms of the diversity of resources and accumulated knowledge. When applied to entrepreneurial ecosystems at the territorial level, Romer's theory makes it possible to reveal the potential of their development through the internal balance and coherence of elements.

According to the provisions of Romer's theory applied to the activities of business systems, the main priority should be to determine the population and related nutritional needs; therefore, the formation of entrepreneurial ecosystems of rural areas should occur within the framework of the evolutionary development of existing regional and local models of rural economic systems.

Unlike industrial production, agrifood production is traditional; therefore, the formation of rural entrepreneurial ecosystems should occur based on evolutionary development, such that historical knowledge becomes not only the basis for understanding the territorial model of a rural entrepreneurial ecosystem but also the foundation of rural strategic development.

The concept of an entrepreneurial ecosystem presupposes discrepancies and differences in the goals of its actors, which requires the development of theoretical models that will, while observing the goals of individual participants, determine the institutions of their interaction within the ecosystem to achieve a common goal. The activities of entrepreneurs occur within the institutional framework of the ecosystem; therefore, differences in the efficiency of entrepreneurial activity in different spatial systems can be explained not only by differences in entrepreneurial skills and abilities but also by differences in the organization of the entrepreneurial ecosystem, including in different rural areas.

This comment once again demonstrates the need to study rural entrepreneurship within the institutional concept of the rural entrepreneurial ecosystem. This suggests that the basis for the implementation of the rural entrepreneurial ecosystem is the formation and development of a well-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 agrifood system has grown steadily over the past 20 years. More researchers are leaning toward the paradigm of rural entrepreneurship as the most important driving force for the development of rural socio-economic systems (Gladwin et al., 1989). Recent findings include that the place of entrepreneurship in the rural economy is low compared with the city, the cost of starting a business increases the interest of rural residents in entrepreneurship, and the proportion of rural residents who consider the possibility of starting a business is significantly

higher than the proportion of urban residents (Duricova, 2015). Researchers note that rural residents are especially willing to start entrepreneurial activities in times of crisis and recession. This is due to the low probability of employment in rural areas compared with the city, so the opening of a business becomes the only opportunity to provide family income (Pato & Teixeira, 2016). Under such socio-economic conditions, innovative development of rural entrepreneurship can ensure the sustainability of not only households but also the economy of rural areas as a whole (Elena, Sorina, & Rus, 2015). The question is to correctly identify not only the factors that promote the innovative development of rural entrepreneurs but those that inhibit them and impede their development. Though there are many rural residents willing to become entrepreneurs, identifying factors that can harm a rural entrepreneur is recognized by researchers as key in having a critical influence on the decision to open a business. From the perspective of the rural entrepreneurial ecosystem, this question is also one of the most important, since not only the economic but more importantly the social stability of rural areas depends on the answer (Cimdina, 2014).

As noted above, the level of uncertainty in the development of rural business systems is significantly higher than for urban counterparts. Rural entrepreneurship is hampered by a number of factors that not only hinder its development, but in some cases lead to recession and degradation of territorial socio-economic development (Harpa, 2017). In our study, we aim to identify the most significant factors that may have a negative impact on the innovative development of the rural entrepreneurial ecosystem. After identifying these factors, we provide clear recommendations on how the knowledge and practices from traditional agriculture combined with innovative practices can assist in developing a rural entrepreneurial ecosystem.

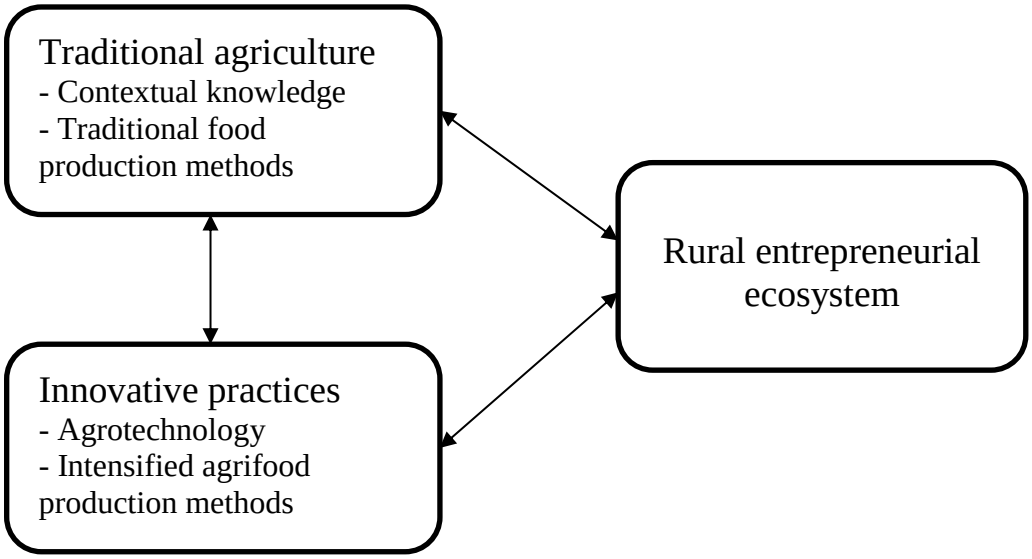
2 Discussion

We developed a conceptual framework (see Figure 1) that illustrates the reciprocal relationship between traditional agriculture and innovative practices in the agricultural sector and their causal effect on the development of a rural entrepreneurial ecosystem.

Further, the concept of a rural entrepreneurial ecosystem differs across developing and developed economies based on a number of factors, including technological advancements in food production, long-established routines and norms of traditional agriculture, and availability of resources and institutional support for different actors to be able to generate entrepreneurial capabilities. Understanding the differences and similarities of rural entrepreneurial ecosystems

in developed and developing economies can help to draw generalizations as well as study contextual nuances that can help to develop socio-economic and social conditions to create platforms for the prosperity of rural communities.

Figure 1: Rural entrepreneurial ecosystem: Linking traditional agriculture and innovative practices



Innovative development of the rural entrepreneurial ecosystem is constrained by a number of factors that not only reduce the innovative activity of rural entrepreneurs but also adversely affect the functioning of other elements of the ecosystem. This raises the problem of identifying the most significant factors that may have a negative impact on the development of the rural entrepreneurial ecosystem.

Conclusion and recommendations for future research

Rural entrepreneurship ecosystems have received limited scholarly attention. However, intensified food production and the need for more sustainable agricultural practices compels scholars to focus on the issues around rural ecosystems. Rural entrepreneurial ecosystems are embedded in larger institutional environments that continuously evolve. By linking traditional agriculture and innovative practices, as proposed in the conceptual framework of this study, we can examine the evolutionary development of existing regional and local models of rural economic systems. Future research should empirically test the link between the two concepts;

this would help to identify significant factors that could have serious implications for the development of the rural entrepreneurial ecosystem.

Further, rural entrepreneurial ecosystems are context specific; therefore, future research should examine the development of ecosystems in both developed and developing economies. This would help to identify practices on how to enhance sustainable development of rural ecosystems under different economic and political conditions.

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References

Acs, Z. J., Estrin, S., Mickiewicz, T., & Szerb, L. (2018). Entrepreneurship, institutional economics, and economic growth: an ecosystem perspective. *Small Business Economics, 51*(2), 501-514. doi:10.1007/s11187-018-0013-9

Bosworth, G., & Turner, R. (2018). Interrogating the meaning of a rural business through a rural capitals framework. *Journal of Rural Studies, 60*, 1-10. doi:10.1016/j.jrurstud.2018.02.002

Cimdina, A. (2014). UNNOTICED ENTREPRENEURSHIP AND INNOVATION IN LATVIA'S RURAL ECONOMY. *Journal of Baltic Studies, 45*(1), 79-104. doi:10.1080/01629778.2013.836830

Duricova, V. (2015). Entrepreneurship in Urban and Rural Areas in the EU. *Cers 2014: 5th Central European Conference in Regional Science, International Conference Proceedings*, 197-204.

Elena, H., Sorina, M., & Rus, D. (2015). A predictive model of innovation in rural entrepreneurship. *8th International Conference Interdisciplinarity in Engineering, Inter-Eng 2014, 19*, 471-478. doi:10.1016/j.protcy.2015.02.067

Figueroa-Armijos, M., Dabson, B., & Johnson, T. G. (2012). Rural Entrepreneurship in a Time of Recession. *Entrepreneurship Research Journal, 2*(1), 28. doi:10.2202/2157-5665.1044

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

Harpa, E. (2017). Macroeconomic Analysis of the Competitive Factors which Influence Innovation in Rural Entrepreneurship. *10th International Conference Interdisciplinarity in Engineering, Inter-Eng 2016, 181*, 965-968. doi:10.1016/j.proeng.2017.02.494

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.

Lawrence, G., Lyons, K., & Wallington, T. (2010). *Food security, nutrition and sustainability*. London: Earthscan.

Pato, M. L., & Teixeira, A. A. (2016). Twenty Years of Rural Entrepreneurship: A Bibliometric Survey. *Sociologia Ruralis, 56*(1), 3-28. doi:10.1111/soru.12058

Ritzer, G. (1996). The McDonaldization 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

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* (pp. 1-34). London: Routledge.

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