



INDICATORS FOR EVALUATING ENTREPRENEURIAL ACTIVITY IN RURAL AREAS

T. Turlakova*

Department of Agriculture, University of Economics-Varna, Bulgaria

ABSTRACT

The purpose of this report is to present a methodology for research and analysis of regional entrepreneurial activity in rural (non-urban) regions of the country. The research applies indicators such as the degree of entrepreneurial activity, depth and breadth of entrepreneurial activity in the rural area, etc. Conclusions have been made about the influence of population density, the share of the working-age population in the region, unemployment and other processes on the development of entrepreneurship in rural areas of Bulgaria. The main directions in which the methodology can be used are indicated, and you have the opportunity to support the strategic development of rural areas.

Key words: employment, population density, entrepreneurship activity, TEA index, regional entrepreneurship, breadth and depth entrepreneurship

INTRODUCTION

Entrepreneurship and entrepreneurial activity are not defined clearly in the economic literature and research. There is indirect but fruitful discussion on the content of these terms, which in one way or another characterize private initiative. Entrepreneurial activity is defined on different levels - corporate, branch and regional. The actuality of the problems of entrepreneurial activity in the regional plan arises from the common view that entrepreneurship is at the heart of regional development and regional economy. The purpose of this report is to present a methodology for research and analysis of regional entrepreneurial activity in rural (non-urban) regions of the country.

In much of the literature, entrepreneurial activity is associated with a set of activities for creating a new business, new product or new technology. As entrepreneurial activities are defined capacity opening and its utilization. Entrepreneurial activity is largely associated

with risk-taking and action under uncertainty. In this regard, researchers set innovation, finding opportunities and taking risks as characteristics of entrepreneurial activity (1).

Similarly entrepreneurship is defined in the very early concepts, covered by Cantillon, Say, Schumpeter. Finding opportunities as an intrinsic characteristic of entrepreneurship is central staging in the works of Hayek and Kirtsner. Later, Drucker emphasizes the role of entrepreneurs to create something new and different, "they change or transform values" (2). The presented authors explore and reflect different aspects of entrepreneurship and entrepreneurial activity as they enrich their understanding of nature on the one hand and on the other-are diminishing borders and differences between the two concepts.

In several studies entrepreneurial activity is not defined, but contextually seen as the product of the action of an individual or group of individuals, based on the enterprise. In other entrepreneurial activity is also associated with the activity of the small, newly established organization. Regardless of the context of the examination, entrepreneurial activity is an indicator of the intensity of distribution of

*Correspondence to: Teodorina Turlakova,
Department of Agriculture, University of
Economics-Varna, email: tturlakova@ue-varna.bg,
phone +359 888 736996

entrepreneurial activity in a given territory, seen as creating a new company, applying entrepreneurial approaches, behavior and management.

From the eighties until today studies of entrepreneurial activity in connection with the development of domestic entrepreneurship have particular relevance. The various manifestations of entrepreneurial activity of the organization are examined. In this respect, entrepreneurial activity was investigated at the company level as a unique phenomenon of the current rather than the start-up (3). In Bulgarian scientific literature (4) it is stated that domestic entrepreneurship refers to the collective and proactive organization.

Manifestation of the entrepreneurial activity of the organization is characterized by the following aspects:

- Availability of a set of activities in the organization, aimed at creating innovation;
- Integration of entrepreneurship strategies of the organization;
- Availability of a set of activities for creating business venture and systematical update;
- Specific types of behaviour in the organization.

Seeing the theoretical problem of entrepreneurial activity, we note that its essence is not limited to its manifestation at the company level. Much more widespread in applied research is the concept of entrepreneurial activity at the level region. In this regard, we can differentiate regional entrepreneurship as a phenomenon, and regional entrepreneurial activity as an indicator of the extent of entrepreneurial approaches, methods and management.

Regional entrepreneurial activity as an indicator is used for the analysis, comparison and evaluation of disparities in distribution and development of entrepreneurship in different regions. In comparative analyses the indicator "registered new companies" is commonly used as a measure of entrepreneurial activity.

METHODS OF MEASURING BUSINESS ACTIVITY IN THE RURAL AREA

Through this measure the rank of the formation of new companies on the different levels is measured. Crucial importance, especially for

studies in the UK, have emerging businesses registered for VAT, reported by national statistics. The following formulas are applied:

- Rank of formation of new companies in the region r and sector $i - f_{i,r}$;

$$f_{i,r} = \frac{VR_{i,r}}{VS_{i,r}}, \text{ where}$$

$VR_{i,r}$ – annual number of registered by VAT in the sector i of region r

$VS_{i,r}$ - number of companies registered by VAT at the beginning of the year in sector i of region r .

- Rank of formation of new companies in the region r , aggregated for all sectors - f_r

$$f_r = \frac{\sum_{i=1}^n VR_{i,r}}{\sum_{i=1}^n VS_{i,r}}, \text{ i changes from } 1 \dots \dots \dots n$$

- Rank of formation of new companies in the sector i , aggregated for all regions - f_i

$$f_i = \frac{\sum_{r=1}^m VR_{i,r}}{\sum_{r=1}^m VS_{i,r}}, \text{ where } r \text{ changes from } 1 \dots \dots \dots m$$

- Rank of formation of new companies in all sectors and regions – F

$$F = \frac{\sum_{r=1}^m \sum_{i=1}^n VR_{i,r}}{\sum_{r=1}^m \sum_{i=1}^n VS_{i,r}}, \text{ where } i \text{ changes from } 1 \dots \dots \dots n, r \text{ changes from } 1 \dots \dots \dots m.$$

Using a similar measure universalizes the data for the comparative analysis of the regions on the one hand but on the other – limits the understanding of entrepreneurship to new businesses. Given the definition of entrepreneurship, we can consider that the use of the meter "start-ups" does not reflect all aspects of regional entrepreneurship and in comparative perspective can affect the differentiation of entrepreneurial activity in the regions. In specifics entrepreneurial activity in the region explains the potential of the region to develop entrepreneurial activity, which can be expressed by attitudes and intentions, emerging businesses and newly established business.

In its research GEM measures entrepreneurial activity by the Total Entrepreneurial Activity Index (TEA Index) in the initial phase of the entrepreneurial process.

Development of consistent, harmonized and internationally comparable indicators to measure the entrepreneurial attitude helps to formulate the differences between countries and

regions in entrepreneurial attitudes, actions and goals. This index is mentioned for the first time in 2000 in the global report (5) under the name Total Entrepreneurial Activity Index. Popular in literature is the measurement of entrepreneurial activity by the following formula, which reflects the summed activity of the population:

$$Ka = \frac{NB}{P}, \text{ where} \quad (1)$$

Ka- coefficient of entrepreneurial activity;
NB- number of small and medium enterprises in a given region;
P - population of the region at a working age.

Reasons for the use of this indicator include:

- Need for endogenous development based on local resources and use of the knowledge of the population in the region of the existence and traditions in the use of local resources;
- Development of local strategies for local development and implementation, in making important decisions for the region;
- The decision of entrepreneurial activity is related to the possession of the experience, training or education, which ensures future success;
- Successful implementation of the single decision has a multiplier effect - in job creation, implementation of goods or services, by promoting the development of related businesses, by generating tax revenue and more.

In 2001 the TEA index of entrepreneurial activity is converted into a total TEA index in the initial phase of the entrepreneurial process, as in fact it did not measure entrepreneurial activity as a whole, only the initial phase of the company to the ownership and management.

The development of these indicators should be guided by two basic principles: first, that entrepreneurship is a *process*, and secondly, that this process is carried out by *individuals*.

The TEA index assesses the percentage of the working age population who are ready to start up, and those who started out not more than three years and a half. The index expresses the participation of people in the initial phase of the business and does not affect the long-term relationship entrepreneurship and economic development, as well as the activities of already established companies. Therefore, it cannot be used for determining the entrepreneurial behavior in one hand. The relationship between

entrepreneurship and economic development is not so simple and the TEA in the initial phase of the entrepreneurial process cannot be a basis for a ranking of countries according to the level of entrepreneurial activity. As noted by Bosma and others (6), high levels of this index are not always preferable.

For example, in the factor economies, lowering of the index may indicate reducing the number of people who are forced to start their own business because they have no alternative employment. A rise in the index is usually measured when the economy is growing, which is associated with increased likelihood of realization on the market. In economies whose development is associated with innovation, high levels of this index are determined by regional, demographic and cultural characteristics. It is possible that two countries or two regions have the same overall score, but the development of entrepreneurship in them is totally different.

Although the TEA index in the initial phase of the entrepreneurial process is a key indicator used by GEM, scientific papers on the subject are only a few by objective reasons: the establishment of differences in itself does not constitute a scientific contribution to the understanding and promotion of entrepreneurship. The fact that a number of academic studies rely on surveys of GEM, featured in the journal *Small Business Economics*, shows that the indicators of the GEM to determine entrepreneurial attitudes, activities and objectives as well as the conditions of the entrepreneurial framework are widely used in this field of study.

In modern concepts of regional development, used and developed by the Centres for the Study of Rural America, economists (7) also take the view that defining are several key advantages of the region, the most important of which is the level of regional entrepreneurship. According to Sara Low (4) entrepreneurship development will facilitate the use of capacity and resources in the regions, which is especially important in rural areas.

In this regard, S. Low offers several indicators measuring regional entrepreneurship called "breadth" and "depth" of regional entrepreneurship (entrepreneurship breadth and depth). The "breadth" of entrepreneurial activity characterized the territorial dispersion and

frequency of entrepreneurship, whereas the "the depth of regional entrepreneurship" determines the concentration of entrepreneurs with high utility (high-value entrepreneurs) for the region. Areas with great breadth of entrepreneurial activity include various types of business and many entrepreneurs. American economists suggest for entrepreneurship activity breadth to be measured by the formula (7):

$$BE = \frac{RSE}{TRE} \cdot 100, \text{ where} \quad (2)$$

BE is the breadth of regional entrepreneurship measured in % ;

RSE is regional self-employment (number of entrepreneurs in the region);

TRE is the total regional employment (number of people employed in the region).

Studies for the United States show that the breadth of the regional enterprise is usually high in rural areas and has low values in urban centers. Breadth values vary at different levels, due to national and regional factors. In rural America, for example, entrepreneurial activity breadth is more than 22% for cities with population between 10,000 and 50,000 inhabitants it exceeds 17%, and in the capital city it is about 15%. In the European Union countries there is a trend for higher values of 'breadth' of regional entrepreneurship in rural areas as compared to urban centers in the values.

The depth of entrepreneurship can be measured by performance indicators for return of entrepreneurial companies in the region. Entrepreneurs with high utility have more revenue generating cash and influence regional development. Regional depth can be measured by two economic indicators: average earnings of self-employed and the added value of self-employed (entrepreneurs). This could be adapted following formula to calculate the depth of regional entrepreneurship:

$$DE = \frac{AInE}{TIn} \cdot 100, \text{ where} \quad (3)$$

DE – regional depth of entrepreneurship in %;

AInE- average income of entrepreneurs in the studied region;

TIn – average income (salary) per person from the population of the region;

Research centres for the development of entrepreneurship in rural areas of the United States show that there is the following pattern: rural areas are characterized by high breadth

and low depth of entrepreneurship. In other words, rural entrepreneurship has a high frequency, but it does not generate high added value as opposed to entrepreneurial activity in urban centres.

Although it has never been a goal of the academic community, the establishment of the differences in entrepreneurship between countries and regions indirectly lead to the development of some new scientific productions. Leading in this regard is the concept of so-called "entrepreneurial region" or "entrepreneurial region," which is the subject of both research and programs of the EU.

Importance of regional entrepreneurial activity and its continued research results in the generation of information about entrepreneurship at the individual (micro) and macro level and the establishment of appropriate regional enterprise policy.

The academic contribution in relation to the study of regional entrepreneurial activity is characterized by an increase in the number of comparative regional analyses and linking them with strategies for regional economic development.

CONCLUSION

Procedural, strategic and structural parameters of the regional entrepreneurial activity vary over time. By analogy to organizations in regional entrepreneurial activity critical stages are noticed: creation, transformation and decline.

In procedural aspect the study of regional entrepreneurial activity allows:

- To compensate somewhat strict determination in development;
- To distinguish between regional systems in relation to their adaptability to internal and external environment and to focus on those who have limited adaptability;
- To define the stages in the development of regional systems on the basis of performance criteria;
- To identify the main patterns of development and potential areas for future regional entrepreneurial activity;
- To present the specifics in the process of developing regional entrepreneurial activity generated by the causal links in the regional system and beyond.

Strategic dimensions of regional entrepreneurial activity are reflected in the strategic planning of municipal development and the ability to adapt municipal development strategies of entrepreneurial activity.

Structural dimensions of the regional entrepreneurial activity have broader sense and apply to both the adaptation of the organizational structure of companies to the regional organizational structure and to the adaptation of agglomerational entrepreneurial networks.

The development of regional entrepreneurial activity, its analysis and evaluation create a need for its measurement to determine the direction, level and speed of regional changes. Dimension of regional entrepreneurial activity allows for an adequate analytical and operational information package of indicators for the situation and trends in the regional economy, consistent with the guidelines of national development sectors, level of efficiency and competitiveness. It allows to identify the potential benefits of the region compared to other regions.

REFERENCES

1. Antoncic, B. Hisrich, R. Clarifying the intrapreneurship concept, *Journal of Small Business and Enterprise Development*, 2003, vol.10, №1, pp.7-24, както и Covin J., D. Slevin A conceptual model of entrepreneurship as firm behavior, *Entrepreneurship Theory and Practice*, 1991, 1, pp.7-26.
2. Drucer, P. Innovations and entrepreneurship, *Classics and style*, 2002, с.23.
3. Morris, M., D.Davis, J.Allen, Fostering Corporate Entrepreneurship: Cross-Cultural Comparisons of the Importance of individualism versus Collectivism. *Journal of International Business Studies*, vol. 25, 1, pp.65-89.
4. Todorov, K. Basics of small business, Trakia-M, Sofia, 2000.
5. GEM, Global report, 2007.
6. Bosma, N., Acs, Z. Autio, E., Coduras, A. & Levie, J. *Global Entrepreneurship Monitor*, 2008 Executive Report. Babson Park, MA, US: Babson College, Santiago, Chile: Universidad del Desarrollo. UK: Global Entrepreneurship Research Association, 2009.
7. Low S., The Main Street Economist, September 2004, Center for The Study of Rural America, Federal Reserve Bank of Kansas City.