

DYNAMICS IN THE STRUCTURE OF THE RURAL ECONOMY: THE EXAMPLE OF THE RURAL REGIONS IN THE DISTRICT OF STARA ZAGORA

Y. Yarkova^{1*}, K. Strahilova²

¹Trakia University, Stara Zagora, Bulgaria

²University of National and World Economy, Sofia, Bulgaria

ABSTRACT

Rural development Policy in Bulgaria during the programming period 2014-2020 will be set based on the existing trends during the past period.

The goal of this study is to determine changes in the structure of the rural economy and its impact on overall economic development of rural areas. The methods used in the study are as common scientific methods of research (descriptive and comparative analysis) also specific methods (index analysis of the dynamics, analysis of variance, method of Herfindahl). The level, dynamics and structure of net sales revenues, number of employees and number of enterprises in different economic activities have been investigated. The site is rural areas in the Stara Zagora district. The hypothesis that verifies the testing is related to the influence of the structure of net sales revenues of economic activity on their level. One of the main results is related to determining the level of diversification of the rural economy. The data cover the period 2000-2008.

Rural economy and its structure is on one hand a result of advancing socio-economic changes at local, national and global level, but on the other hand is a prerequisite for solving the widening demographic and social problems and to improve the quality of living in rural areas.

Key words: rural development, economical structure of the rural regions

INTRODUCTION

The policy of rural development is extremely important not only for the economy of the country but also for the entire European Union. In the period 2007-2013 it is focused on the following priorities: increasing the competitiveness of agriculture and forestry sectors, improvement of the environment and landscape, enhancing the quality of life in the rural areas and encouraging diversification of their economy. This diversification helps to expand economic activities in rural areas providing an opportunity for balanced and sustainable economic development. According to the Program of The European Commission (Rural Diversification) the diversification in that areas is a factor for development of services, employment and increasing of the concentration of business in regions with low levels of economic development.

***Correspondence to:** Yuliana Yarkova, Trakia University, Stara Zagora 6000, e-mail: yu_yarkova@uni-sz.bg

In the new program period from 2014 till 2020 the development of the policy for rural development in Bulgaria will be placed on the basis of the tendencies, problems and tasks that appeared in the previous period. According to the Round-up Report and the detailed action plan in the different regions of Europe (6) there are many important conditions including the global drive for change that should be considered in the transition to a more competitive and innovative economy based on knowledge.

Studies in Bulgaria showed negative tendencies in the rural areas over the last 5 years: a strong deterioration of the demographic characteristics, poor job opportunities and income generating, a shortage of skilled workforce, reducing of the financial gain in the production and poor condition of all types of basic infrastructure. There is also a shortage of new investments and degradation of civil and professional ethics which leads to insufficiently responsible

attitude towards labor in some groups of the population. Insufficient is also the work of the local administration with the business representatives. The last is strongly felt in the preparation and management of projects financed by the EU and other funds (5).

The opportunities that exist for accomplishing positive results and tendencies are mainly connected to the processes of working out contemporary policies of development - The Contract of European Union states that the economic and social cohesion is one of the three pillars of European construction and the strategic program "Europe 2020" (2) relies on the smart growth - developing an economy based on knowledge and innovation and the sustainable growth - promoting a greener and more competitive economy with more efficient use of resources. It is also promoting inclusive growth economy with high levels of employment, which creates conditions for social and territorial cohesion.

The subject of the present study is the rural communities in the district of Stara Zagora. To analyze the economic situation in these municipalities financial indicators are used. They are extremely important because not only they are the basis for making forecast, but also they help to analyze the current situation and to take the appropriate management decisions. An important element of the analysis is to determine the methods used. The present study uses both common scientific methods of research like descriptive and comparative analysis and specific methods such as analysis of index dynamics, analysis of variance and others.

In the present research the branch structure of the rural economy is examined by the means of analyzing the net revenues from sales and the structure of the employment. When carrying out any analysis the main factors that are taken into account are those that influence the modification of a particular indicator. Those factors are used when looking for the cause and effect relations. In this regard a hypothesis is verified by the present work. The hypothesis is that there is a kind of structural influence of the net revenues from sales in the different economic activities on their size.

The net sales revenues are the main indicator used for analysis in this research. According to

the Accountancy Law the net sales are the sums gained from the sale of products, goods and services generated by the enterprise's usual activity reduced by trade discounts, reductions, rebates and value added tax"(9). In the same source it is said also: 'the usual activity of the enterprise is a combination of business transactions carried out regularly by the company within the work performed by it. Net sales are included in the Income Statement of Gains and Costs. This statement provides information on how revenues are generated and what costs are made for a period of time.

The net sales revenues are an indicator that is closely related to the subject of this study which is defined as the level, dynamics and structure of the net revenues from sales, the number of employees and the number of enterprises in different economic activities.

The purpose of this research is to determine the occurred changes in the structure of the rural economy and its influence on the overall economic development of rural areas. To achieve this goal the following tasks should be fulfilled: 1)to determine and analyze the approximate share of the municipalities of the NSR (Net Sales Revenues) in the examined area, 2)to determine the relative shares of various economic activities in the rural areas by years, and 3)to establish what is the contribution of the different economic activities in the employment rate as a whole in the different municipalities, 4)to determine the factors diversifying the economy of rural communities.

GENERAL CHARACTERISTICS OF THE RURAL AREAS IN STARA ZAGORA

In administrative terms the territory and the population of Stara Zagora are grouped into 11 municipalities. According to the national definition used in the program for rural development from 2007 to 2013 as rural areas are defined such municipalities in which there is no settlement with a population over 30,000 people (4). Following this definition from all 264 municipalities in the country 231 are classified as rural. They represent 81% of the territory of the country and 42% of its population (4).

Applying the national definition for the rural areas at LAU1 as rural municipalities are identified 9 of the municipalities in Stara Zagora (Bratya Daskalovi, Gurkovo,

Galabovo, Maglizh, Nikolaevo, Opan, Pavel Banya, Radnevo and Chiipan) and 2 municipalities are defined as urban (Stara Zagora and Kazanlak). From the territory of the region 67% is identified as rural and 31% of the population in the region lives in rural communities.

A bit more of the half (5 settlements) of the rural municipalities have medium size if having in mind the number of the population. There 79% of the population of the rural municipalities is concentrated. The other 4 municipalities are small - micro municipalities. In the two rural agglomerations (Radnevo and Chirpan) 13% from the population in the region and 41% from the population of the rural communities are concentrated.

The processes related to the economic, social, infrastructural, demographic and complex urban development are carried out mainly on the territory of the municipalities. Therefore they are of a particular interest and rural communities are being highlighted in National and European level.

Although according to many socio-economic indicators the area is above the average level and there are favorable tendencies in the economic indicators, there are obvious imbalances between municipalities including rural communities of the area.

THE CONTRIBUTION OF THE RURAL REGIONS IN THE ECONOMY OF STARA ZAGORA

The assessment of the economic activity of the municipalities in the district of Stara Zagora is determined primarily by net sales.

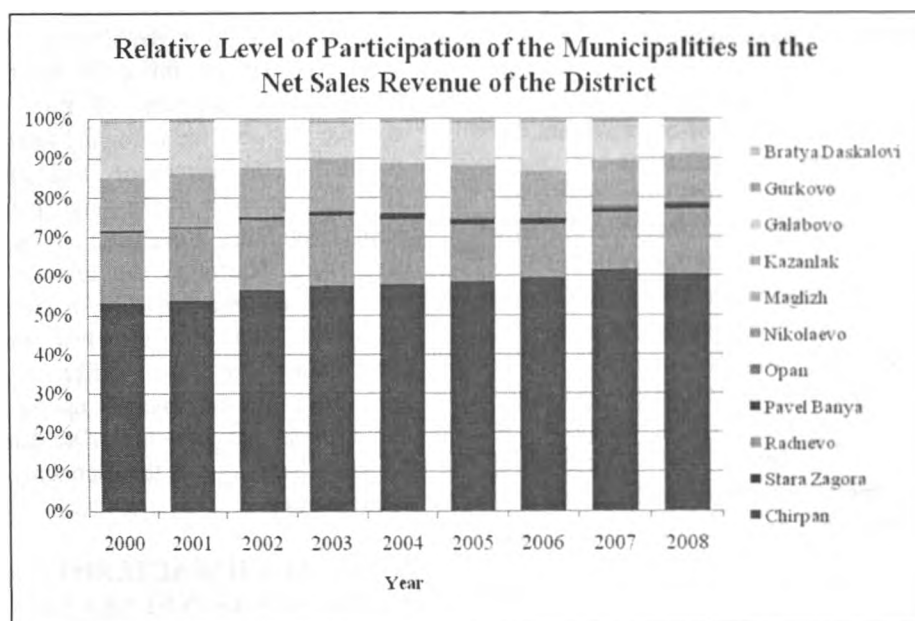


Figure 1. The share of the municipalities of Stara Zagora in the NSR for the period 2000-2008 according to the Territorial Statistics Bureau - Stara Zagora (Source: Own calculations on data received from TSB - Stara Zagora)

The **Figure 1** shows the comparative proportion of the municipalities' share in the NSR in the region of Stara Zagora. During the observed period the importance of the individual share of the municipalities in the formation of NSR in the field did not change significantly. What draws our attention is that if in 2000 the rural communities occupy 37.7% of the NSR formed in the area, in 2008 this share drops to 29.6 %. The largest contributions to the NSR of the rural communities have Radnevo and Galabovo but

we believe this is related to the specific industrial structure. With the exception of Pavel Banya municipality, which in 2008 gives 1.2% of the NSR in the area, all other rural communities form a share lower than 1.0% of the whole NSR in the region.

During the observed period all rural communities with the exception of Galabovo and Radnevo have below the average level of NSR/1 person for the area and country. The index compared to the average for the country in 2000 and 2008 is presented in the table:

Tabiel. The index of NSR/1 person (%), Bulgaria (100%), 2000 and 2008 (Source: Own calculations on data received from TSB-Stara Zagora)

Municipality	2000	2008
Bratya Daskalovi	14,40	10,60
Gurkovo	27,50	29,44
Galabovo	284,20	166,10
Maglizh	7,40	5,40
Nikolaevo	13,80	7,60
Opan	12,03	31,90
Pavel Banya	9,60	21,40
Radnevo	244,80	165,10
Chirpan	20,80	14,00

It is obvious by the indicator of NSR/1 person that the rural municipalities (except Galabovo and Radnevo) can be defined as "underdeveloped" rural communities. The manifested tendencies indicate that except for the years 2003 and 2008, during the other years of the period 2000-2008 the NSR in the rural municipalities is characterized by steady increase. The most serious is the growth

occurred in sectors such as Manufacturing, Trade and Repair of cars, Construction, Transport and Storage.

ECONOMICAL STRUCTURE OF THE RURAL REGIONS

Figure 2 shows the structure of the rural areas through the structure of NSR.



Figure 2. Structure of NSR, rural municipality, Stara Zagora, 2000-2008 (Source: Own calculations on data received from TSB - Stara Zagora)

The relative shares of different economic activities in the rural areas by year for the period 2000-2008 (Figure 2) indicate that the major share belongs to the mining industry, the manufacturing and distribution of electricity, trade and repair of motor vehicles. Bearing in mind that these are not typical economic

activities for the rural areas, it needs to be pointed as a favorable fact that the share of the manufacturing industry was increased significantly in the second half of the surveyed period. The share of the agricultural sector in NSR varies between 4.5% and 6.7%.

To determine whether the amount of NSR depends on the structure of NSR the following hypothesis is defined: "The amount of NSR depends closely on the branch structure of the NSR".

To verify this hypothesis it is necessary to define a zero and an alternative hypothesis and to use statistical analysis in the process of this examination. In the case a single factor analysis of variance is used. The zero hypothesis is: "The amount of NSR does not depend closely on the branch structure of the NSR" and the alternative hypothesis is: "The amount of NSR depends closely on the branch structure of the NSR".

After completing the single factor analysis of variance with the help of the statistical

software (SPSS) a check of the necessary requirements was made and the analysis was performed. As a result of the above mentioned analysis it was found that the alternative hypothesis, which states that "The amount of NSR depends closely on the branch structure of the NSR", should be considered to be true.

An interesting topic is the contribution of the different economic activities in the employment opportunities by municipalities (**Figure 3**). From the figure it is clear that in 2008 the major contribution to the employment has the manufacturing. This situation could be observed in five from the nine rural communities - Bratya Daskalovi, Gurkovo, Maglizh, Nikolaevo, Opan, Pavel Banya, Radnevo, Chirpan.

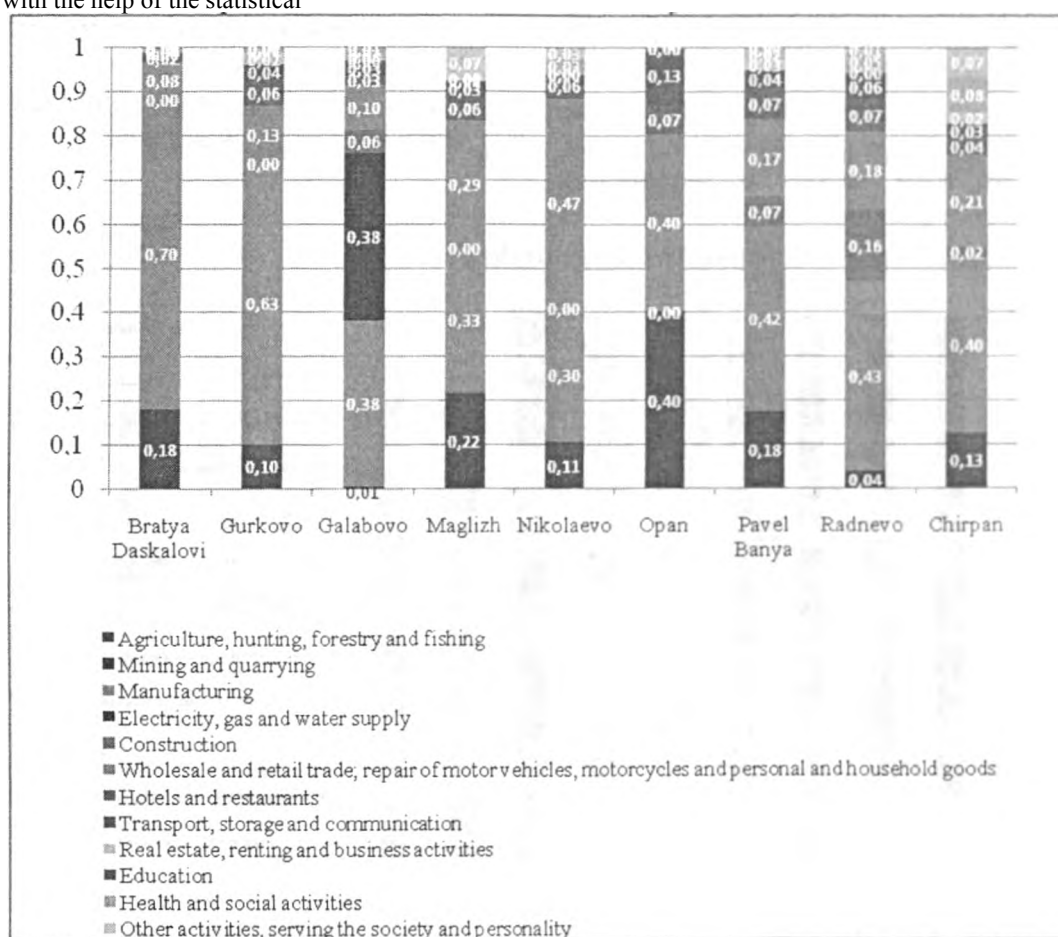


Figure 3. The structure of NSR classified by economic activities, rural communities, Stara Zagora, 2008 (Source: Own calculations on data received from TSB - Stara Zagora)

The rural municipalities Galabovo and Radnevo are specific in their structure of rural employment where the leading role in affording opportunities for work has the production and distribution of electricity and mining. Agriculture and trade are the other major economic activities providing

employment in the rural municipalities of Stara Zagora.

Transportation, warehousing and construction also provide work for the population in the recent years but the deal of the construction

has declined in the last years of the observed period.

MEASURING THE LEVEL AND DYNAMICS OF THE DIVERSIFICATION/SPECIALIZATION OF THE MUNICIPALITIES IN STARA ZAGORA

For measuring the level and the dynamics of the diversification/specialization of the municipalities in Stara Zagora the index of Herfindahl has been applied. The index is determined by the formula (3.8):

$$H = \sum_{i=1}^n \pi_i^2, \quad [1]$$

Where:

π_i is the proportion of employees in the i-th sector, in%;

n-number of sectors.

This means that the index H is equal to the sum of the squares of the relative shares of the employed in each economic sector of the municipality. The formula HI for a municipality with three productions means: HI = sum of squared shares of all sectors of the sectors in the municipality. The amount varies from 0 (when a municipality has a multi-sectoral economy, each of which has a small share of the overall employment - great diversity) to 1 (when one sector includes all employees in the municipality - complete specialization).

In Table 2 the coefficients for the level of diversity in rural communities at the beginning and end of the period are listed

Table 2. Coefficients of diversity in the rural municipalities of Stara Zagora, 2000 and 2008

	Bratya Daskalovi	Galabovo	Gurkovo	Maglizh	Nikolaev	Opan	Pavel Banya	Radnevo	Chirpan
2000	0,50	0,36	0,37	0,18	0,30	0,78	0,42	0,33	0,24
2008	0,50	0,29	0,39	0,21	0,27	0,29	0,24	0,37	0,24

The set of coefficients of diversification in Table 2 showed that in 2000 the medium-sized settlement Maglizh has a high level of diversification. It is followed by the agglomeration municipality Chirpan. The most highly specialized is the micro municipality Opan. As a tendency in 2008 it can be noted that the most of the municipalities have either increasing or preserving level of diversification. In the medium-sized municipalities Maglizh and Radnevo and also in the smallest settlement Gurkovo a slightly increased degree of specialization is reported.

The contemporary models for regional development as the core participants in the process are the enterprises, the government and municipal institutions and the educational and research organizations (7). In the process of economic development of the rural areas as key players can be defined: the local administration, the business, educational and scientific institutions, the local communities and the civil society itself. Of great importance is also the

participation of the public authorities and institutions responsible for the realization of practices and Rinding through European and national funds. These participants form and the driving forces of the development that are human capital, innovation, entrepreneurship and social care. It should not be underestimated also that the main driver for economic development is information and knowledge because the innovation process can be seen more as a result of the function of the human capital developing its knowledge and information.

Basic Conclusions:

1. In 2000 rural communities give 37.7% of the NSR in the region, and in 2008 this share drops to 29.6%.
2. The relative shares of the different economic activities in the rural areas by year for the period 2000-2008 show that the greatest share is occupied by the manufacturing and distribution of electricity, the mining, the trade and repair of motor vehicles. A favorable fact is that the share of manufacturing has increased significantly in

the second half of the surveyed period. This structure is related mainly to the economic characteristics of the leading in economic development rural communities in the Stara Zagora - Galabovo and Radnevo.

3. We should point out that in 2008 there is a slight increase in the level of diversification in most of the municipalities.

4. As a result of the defined and verified hypothesis it can be stated that the amount of NSR depends closely on the branch structure of the NSR. This fact confirms that the achievement of economic growth in the rural communities is highly dependent on the development of the economic activities which form a higher added value in the economy of rural communities.

Recommendations for achieving greater diversity the structure of the economic activities in the rural areas:

- Activation of the municipalities in terms of: expanding and improving the conditions for local business, creating departments responsible exclusively for the application of good practices and utilization of EU funds and programs, strengthening the partnership with business, the NGOs, the educational and scientific institutions and the local communities;
- Creating conditions for development of the agricultural sector: extension of scientific research on problems of agriculture foreign experience and practice, creation and promotion of small enterprises producing dairy and meat products and delicatessen with a specific regional character and more active informing and developing projects for the rural producers;
- Development and funding of national programs for retaining and attracting young educated people, including by providing land;
- Facilitating the procedures for applying for the actions in the Program for Developing of the Rural Regions (PDRR) and other European and national programs;
- Establishment of a 'Consortium of Businesses, University and Local authority' that can be also an 'institutional figure' that

will actively participate in the implementation of the strategic program "Europe 2020";

- Facilitating the informational access to the legislation regulation of the state and municipalities related to business development and stimulating public discussion on new legislation decisions;
- Implementation of technical assistance and training on entrepreneurship - a field of lifelong learning.

REFERENCES

1. NSI, TSB - Stara Zagora, 2000-2008.
2. The European Commission, Commission Report 'Europe 2020' - 'Strategy for smart, sustainable and inclusive growth, 03.03.2010.
3. Methodology of the conditions and order for determining, analyzing and evaluation of the relevant markets and the criteria for identifying companies with significant market influence, accepted by Decree № 40 of 28.02.2008, publ. Bulgarian Official Journal №27, 11.03.2008.
4. Program for Rural Development, Republic of Bulgaria, 2007-2013.
5. Y. Yarkova, K. Toneva, N. Markov, Challenges for the rural development in Bulgaria and the terms of EU membership (focused of the rural municipalities from the district of Stara Zagora), Economic Alternatives, issue 5, 2009, p. 51-65.
6. Blueprint for Foresight Actions in Regions-Synthesis Report entitled Foresight & the Transition to Regional Knowledge-Based Economies (2004).
7. Cornett, A., Nils Sorensen. Regional growth policy in Denmark-an assessment of the role of innovation as an instrument in regional policy, 46-th Congress of the European Regional Science Association, 2006.
8. Rural economic diversification-A community and regional approach, Rural and Small Town Canada Analysis Bulletin Catalogue no. 21-006-XIE, Vol.4, No.7 (December 2003).
9. www.lex.bg