INTER-SECTORAL COMPETITIVENESS, - FACTOR OF SUSTAINABLE RURAL DEVELOPMENT - (CASE STUDY ROMANIA)

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Abstract: *This paper aims to capture the current stage and developments in the economic competitiveness of local rural economy sectors in order to highlight the chances that the business environment of the rural micro zones can become a catalyst/ restrictive factor for sustainable community development. In this respect, our paper focuses on a particular rural micro area, characterized by a significant agricultural potential and a vantage ground that can sustain a viable economic development. Quantitative and qualitative analysis of local economic sectors fundaments the conclusions of this analytical approach and reveals the ability of the rural economy to assume the function of catalyst of sustainable development for the entire community.*

Key words*: competitiveness, rural area, business environment*

INTRODUCTION

In the last decades there are more and more debates around the terms of entrepreneurial economy and entrepreneurial capitalism (Baumol et al. 2007); researchers around the world have demonstrated that high levels of entrepreneurial activity can have a positive effect over the rise of employment level, economic growth and improvement of the general standard of living (Lafuente and Driga 2007). New economic growth models point out the positive impact that initiating a new business can have over the economic growth both for developed economies and emergent ones. If the theoretical economic models developed for the countries with an emergent economy center on the idea that the entrepreneurship represents the "spark" and the "accelerator" of economic growth, in the developed economies the entrepreneurial initiatives are credited the role of new sources for productivity growth – having positive effects over competitiveness (Naude 2008 :2).

World Economic Forum defines *competitiveness* as *the set of institutions, policies, and factors that determine the level of productivity of a country.* The level of productivity, in turn, sets the level of prosperity that can be earned by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates. In other words, a more competitive economy is one that is likely to sustain growth. The concept of competitiveness thus involves static and dynamic components. Although the productivity of a country, region, economic sector determines its ability to sustain a high *level* of income, it is also one of the central determinants of its returns to investment, which is one of the key factors explaining an economy's *growth potential* (WEF, 2012: 4).

However, economic growth and sectoral competitiveness shouldn't be an inwardly objective, but means to serve the improvement of population' living standard, with the contribution and in who's benefit the economic activity takes place.

Economic growth is an important factor in reducing poverty and generating the resources necessary for human development and environmental protection. Sustainable development has become the most important notion of the day, and provides a more comprehensive definition of development, linking up ecological services and quality of life with economic growth. (Ghosh, 2008).

We can talk about the sustainable development of a particular area when the requirements of the three constitutive elements driven in entropic activities are simultaneously satisfied: environment, economic systems and social system.

The Venn diagram of sustainable development graphically relieves the three mentioned pillars drawing attention on the complexity of the links between these. This diagram emphasizes the fact that, in order to achieve the final objective of the sustainable development, any of the three components of the system has to achieve the reconciliation between the following demands:

- The need to ensure it's own medium and long term sustainability;
- The need of biunique coordination of the demands of a sustainable development with any of the other two constitutive elements that it is linked to; more precisely, the need to establish functional and mutual beneficial links with each of the other two components of the system of which it's own sustainability depends on;
- The need to respond to the requirements of integration in the sustainable development system that reunites the inter-conditionality of all components (natural, economic and social systems).

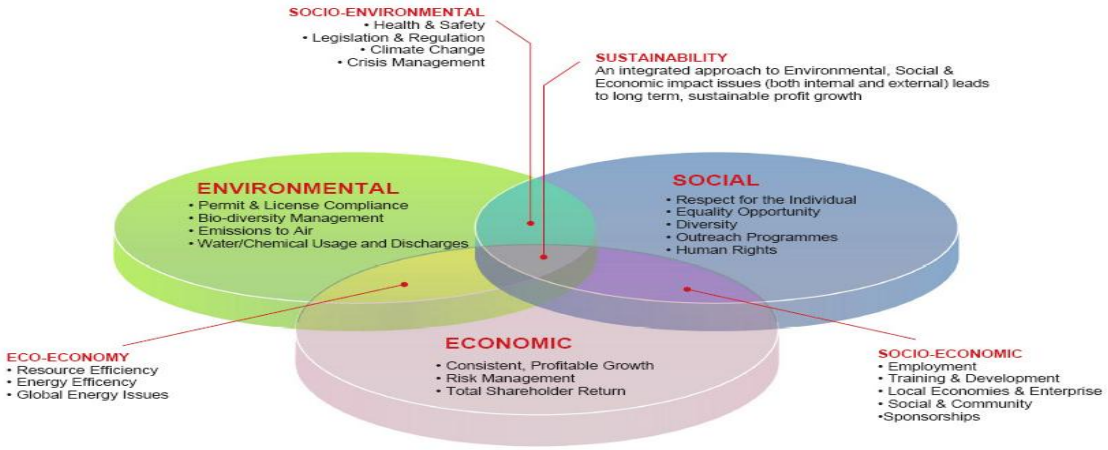

Figure 1. Scheme of sustainable development: at the confluence of three constituent parts (Venn diagram)

Source: http://www.verifysustainability.com/Pie%20Diagram/PieDiagram_Open_Page.aspx

The present paper aims to analyze so far as the current development level of the business environment, more precisely, the intersectoral competitiveness level of the local economy from a rural area with a significant agricultural potential and a vantage ground that can sustain a viable economic development, could sustain a durable development of the entire rural community.

MATERIALS AND METHODS

The main objective of the present paper is: testing the capacity of the rural business environment to become competitive by capitalizing on the local opportunities and to contribute to the overall sustainable development of the rural community. The case study that represents the subject of the analysis comprises a rural micro area formed by four communes from Brăila County (Cazasu, Tudor Vladimirescu, Siliş tea şi Vădeni).The selection of this rural area is motivated by that, through it's local characteristics, the selected rural area has a wide economic capitalizing potential both through agricultural and non-agricultural businesses, as follows:

- **the agricultural potential of the investigated area is represented by two elements**: i) the soils from Brăila County (where the four investigated communes are

located) are predominantly chernozem (class I and II of suitability for agriculture). There are soils with naturally high fertility in which the percentage of humus is 3.0 - 4.5% (MARD, 2007: 12); ii) over 90% of the agricultural and arable lands of the Brăila County (92.6% and respectively 93.3%) have, according to NIS data for 2010, available facilities for irrigation. According to MARD, Brăila is the county in which, by far, the irrigations represent an important component of farming, having the largest area covered by Organizations of Irrigation Water Users - OUAI - (200,028 ha) (MARD 2011: 24), the largest irrigated area (65% of the actual irrigated area at national level in 2010 – NIS 2012 data base) and the largest quantity of water pumped (46% of water used for irrigation in 2009 at national level – MARD, 2011).

- **a vantage ground:** here we are referring to the fact that our study case area benefit for a good accessibility related to the road infrastructure and is located in the immediate proximity of the fluvial and maritime transport infrastructure (the maximum road distance between the rural localities from the investigated area and the Galaţ i or Brăila fluvial harbors is approx 25 km, and the road distance to Constanţ a maritime harbor is approx 220 km).

The analysis of the local economy from Brăila rural area is seen in terms of its position in the integrated system of sustainable development that it is a part of, particularizing the interconditionalities between the competitiveness/economic performance of the business environment, in general and the principles of sustainable development. The study focuses on the following three hypothesizes:

Hypothesis 1*: Purely economic sustainability versus sustainable development*

The purely economic sustainability of business has an indirect impact in supporting the sustainable development in a certain area because *a diversified business environment* leads to the sustainable exploitation of the local natural resources as it avoids the economic over-exploitation of a single category of resources on which the whole population in the given area is economically dependent.

Hypothesis 2*: Socio-economic sustainability versus sustainable development*

The socio-economic sustainability of business has an indirect impact in supporting the sustainable development at community level as a developed business environment with a positive dynamics of labor demand lowers the demographic pressure on the agricultural resources. Thus, the population's dependence on agriculture in a given area decreases as the active members of this population have greater opportunities to obtain stable incomes on the long term by their employment in non-agricultural enterprises. The increase of non-agricultural incomes on the household on the basis of work on the local enterprises can generate an additional demand for products and services on local market that stimulate the development of local business environment.

Hypothesis 3*: Eco-economic sustainability versus sustainable development*

The eco-economic sustainability of business has a direct impact in supporting the sustainable development by understanding the importance, internalization and assuming of certain nature friendly production behaviors, at the business environment level. In this context, *a prosperous business environment* has great financial resources, which permits the implementation of environment friendly technologies (which are in general more expensive than the conventional ones), and this financial effort does not bring about a negative cash flow on the short and medium term.

The selected methodology for the present study is oriented towards answering these three working hypothesizes and consists in qualitative and quantitative analysis of secondary statistic data series regarding the development level of the business environment from the investigated area. The selected indicators characterize the economic performances

of the active enterprises from the investigated area and link this performance to the potential contribution of the local business environment to rural communitarian development. Thus, indicators that describe the diversification level of the business environment were used for testing the first working hypothesis:

- *density of active enterprises* – which reveal, generically, insomuch as the economic potential of the investigated area is capitalized by implementing some private investments
- *structure of active enterprises, by the deployed economic activities* – as a reflection of the development level of the economy (a local economy where the primary sector is dominant and in an incipient phase of development, while the dominance of the tertiary sector is associated to an advanced level on the flight of economic progress) and of a more efficient capitalization of natural and human resources available at local level.

Testing the second hypothesis is based on data/information regarding:

- *dynamics of the total number of employees in the active enterprises* – that reveal the measure of chances that local business environment offers for the stability of the rural labor force market (a pronounced volatility of the labor force demand derived from the enterprises active in local economy, implies the existence of a major risk for the loss of jobs and, hence, a high social vulnerability)
- *the contribution of the economic sectors to labor employment* – reveals the capacity of each sector to sustain the offer on the local labor market.

For the last hypothesis, the indicators regarded by our study comprise data regarding *the structure of the turnover and profitability of active enterprises, by sections of the local economy* that that reveal the measure of chances that local business environment could support the investments in environmental friendly technologies.

RESEARCH RESULTS

According to the last World Economic Forum's report regarding Global Competitiveness, Romania is on the 78 place out of 144 states analyzed in the hierarchy of the Global Competitiveness Index, being in the 2nd Stage (Efficiency-driven) of development[1] (WEF, 2012: 8-10).

The analysis of the economic performances of the business environment from the investigated area is based on the previously mentioned methodology and starts from the evaluation of the productivity of the active enterprises from the investigated rural space as a reflection of the zonal business environment's competitiveness. As an expression of the business environment's competitiveness from the investigated area, the labor's productivity at the level of the enterprises that deployed economic activities during 2011 in the four communes from Brăila County is 35% higher then the national average (labor productivity/employee was of 83.9 thousand Euro at the level of the investigated area compared to only 61.8 thousand, Euro at national level) and, furthermore, exceeded by 80% the labor productivity calculated for the entire Brăila County[2]. We can assert the fact that, at the level of the investigated rural area, the competitiveness level of the local business environment is higher then the national one which translates in higher chances to contribute to the sustainable development of the investigated rural communities. If and to

[1] As a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the *efficiency-driven* stage of development, when they must begin to develop more efficient production processes and increase product quality because wages have risen and they cannot increase prices. At this point, competitiveness is increasingly driven by higher education and training, efficient goods markets, well-functioning labor markets, developed financial markets, the ability to harness the benefits of existing technologies, and a large domestic or foreign market.

[2] processing of data from the database with registered economic operators www.listafirme.ro, 2011

what extent this supposition will be confirmed, is the subject of the following discussions, based on following the three previously mentioned hypothesizes

Purely economic sustainability versus sustainable development

The density of active enterprises per thousand inhabitants is, for the investigated rural area, of 13.02‰, with 8.15‰ lower then the national average and with 3.3‰ under the average level calculated for Brăila County. Taking into consideration the fact that we talk about a rural space where the disposition for investments of the inhabitants and the opportunities for small commercial activities are much lower then that from urban space, we can evaluate the level of the index of active enterprises' density, from the investigated area, as being positively assessed.

At the level of the investigated rural space ensemble, the dimensional structure of the enterprises is conducing to sustain the durable communitarian development because the larger enterprises (more economically stronger and capable to sustain a significant offer on the local labor market) are well represented in the primary and secondary sectors. Thus, although the rural economy of the investigated communes is dominated by micro enterprises (88.4%), this value is lower than the EU27 average where micro enterprises represent 92.0% of the total number, according to EUROSTAT, 2011: 11 data. If we add up the fact that at EU27 level medium-sized enterprises represented only 1.1% of the total number of active enterprises while in the investigated area this index has a value of 3.4%, we have the justification of our previous statement.

Table 1

The structure of active enterprises by activity sectors in the case study area, Year 2011

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Sectors of economic activity	TOTAL active enterprises out of witch	Micro-entrep. (<9 employees)	Small entrep. (9-49 employees)	Medium-sized entrep. (50-250 employees)
Primary (agric., forestry and fishing)	20.4	17.0	2.0	1.4
Secondary (ind. + constructions)	15.0	10.2	3.4	1.4
Tertiary (services)	64.6	61.2	2.7	0.7
Total	100.00	88.4	8.2	3.4

Source: processing of data from the database with registered economic operators www.listafirme.ro

The structure of the business environment by activity sectors is dominated by the active enterprises activating in the area of services provided to both population and enterprises (transport, storage, wholesale, professional, scientific and technical activities – see fig. 2). The secondary sector of the investigated area's economy is on an ascending trend and represents 15% of the total businesses, placing itself close to the national average of 20 %(NIS, 2012). Based on this data, we appraise that the investigated area's economy has overrun the lower stage of development[3] and has entered an uprising trajectory where, more and more, the capital factor is emphasized (adopting technologies that add plus value to the primary products by processing, conditioning, storage, technological transfer etc.)

[3] In the lower stage of economic development, economic growth is dominated by the usage of primary production factors (land, products with a low degree of proccesing, under qualified labor force)

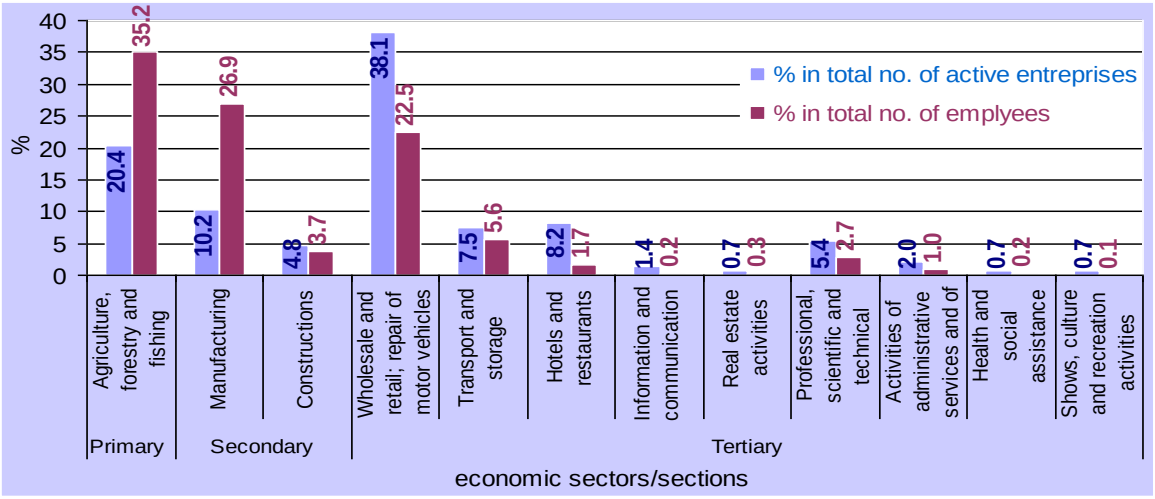

Figure 2. The structure of active enterprises by economic sectors and sections of local economy and contribution to the labor employment in the case study area in 2011

Source: processing of data from the database with registered economic operators www.listafirme.ro

Socio-economic sustainability versus sustainable development

In dynamics, the jobs offer originating from the enterprises active in Brăila's rural space registers a slightly upwards tendency between 2007-2011, although this space also experienced the effects of the recent economic crises during 2009-2010. Although the crises continues, it seems that the investigated rural area found and capitalized new business opportunities, that allowed the expansion of the offer on the labor market stating with 2011. Therefore, the rural labor force market from the investigated area has, in time, rising prospects that translate, in terms of durability aspects, in more chances to attenuate the social vulnerability for the rural communities. The economic sectors that support, to large extent, the jobs offer in the investigated communities are directly dependent on the production, processing and distribution of raw materials of the main sector of local economy – agriculture. Thus, the largest part of the labor force is engaged in agriculture, sector that still capitalizes the advantage of the low price of labor force to the detriment of capital acquisition. On the second place, the processing industry is positioned at whose level 55% of the jobs are created by enterprises from the food industry. The third section in the jobs offer is represented by wholesale and retail trade, repair of motor vehicles and motorcycles, at whose level 13% of the jobs comes from enterprises specialized in trading agricultural or food products; another 5.6% of employees are involved in freight transport by road destined to the distribution of goods produced by local economy.

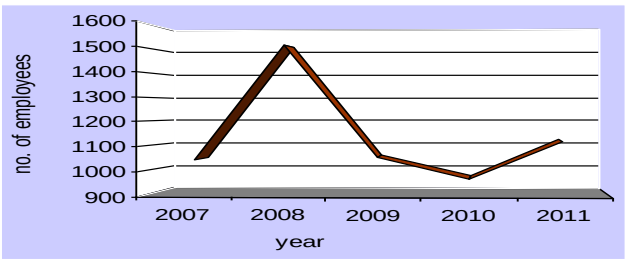

Fig. 3. Dynamics of the total number of employees in the active enterprises form case study area

Source: processing of data from the database with registered economic operators www.listafirme.ro

Eco-economic sustainability versus sustainable development

The analysis of the turnover by sections of economy in the investigated rural area highlights the economic sectors with the most influence over local incomes and who can contribute to the fulfillment of the eco-economic requirements. Thus, four economic sections with a higher potential of investments in environmental goods and services stand out: *Wholesale and retail, Transport and storage, Agriculture and Manufacturing.*

Table 2

Structure of the turnover of active enterprises by sections of local economy

Economic sections	Structure of total turnover (% in total TO of the area)	Average TO/active enterprise at section level (euro)*	Average TO/employee at section level (euro)*
Agriculture, forestry and fishing	27.16	871899	64906
Manufacturing	9.17	588706	28764
Constructions	1.01	138950	22620
Wholesale and retail; repair of motor vehicles and motorcycles	34.54	593994	134671
Transport and storage	27.38	2397144	446925
Hotels and restaurants	0.23	18092	14474
Information and communication	0.02	11577	11577
Real estate activities	0.05	50671	12668
Professional, scientific and technical activities	0.27	32644	9005
Activities of administrative services and of support services	0.13	40815	12244
Health and social assistance	0.01	8751	4376
Shows, culture and recreation activities	0.03	33052	33052
TOTAL	100.00	655162	85990

Source: processing of data from the database with registered economic operators www.listafirme.ro
* the average exchange rate of NBR was used for calculations (2011)

The real capacity of the previously mentioned enterprises to actually sustain investments in environmental friendly technologies (whose cost is higher then conventional technologies) is redeemed, in our opinion, by the profitability of economic agents activating in these fields. Thus, the level of the average enterprise' profit resulting from the production of a good or by performing a service charts the limits of its capacity to invest in new technologies (by allocating both own and attracted capitals to these destinations).

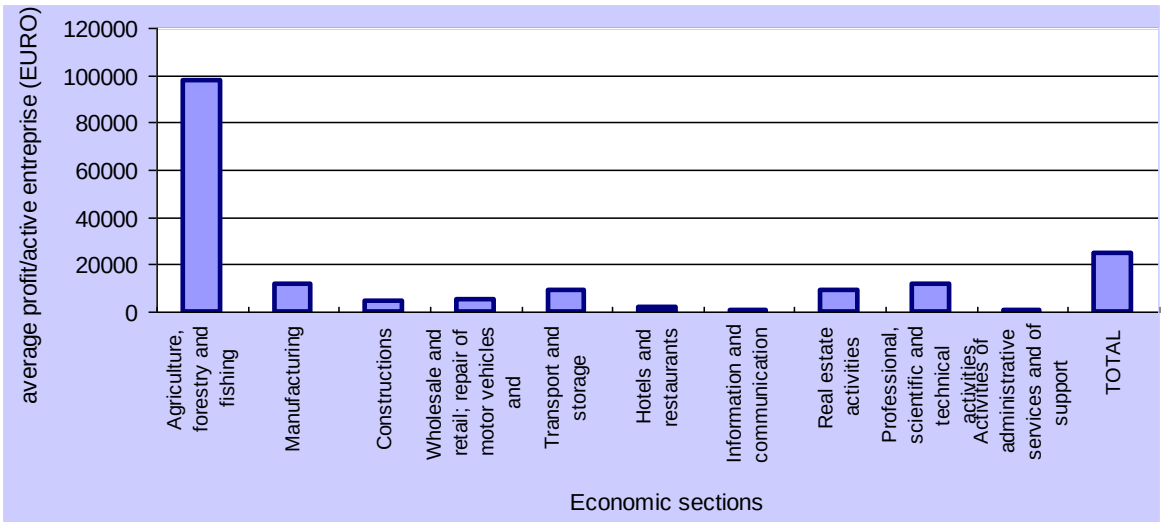

Figure 4. Average profit of enterprises in study case area by main economic activities in 2011 (EURO)*

Source: processing of data from the database with registered economic operators www.listafirme.ro
* the average exchange rate of NBR was used for calculations (2011)

The statistical data regarding the average profit by active enterprise reveal that the enterprises from the primary sector of Brăila's economy have the highest changes to invest in ecological technologies, followed by those from manufacturing, transport and storage fields. A durable development strategy for the investigated rural area can be successful if these particularities of the local business environment are taken into consideration and it can reach its goals if it will rely on the segments of the local economy that have a real and tested potential to satisfy both the local social sustainability requirements (by maintaining

and extending the jobs offer) and the financial capacity to support the additional expenses of ecological sustainability.

CONCLUSIONS

The business environment of the investigated area favorably capitalizes both the high agricultural potential of the area where it activates and the vantage ground of the access to the road and harbor transport infrastructure for commercialization of locally produced goods. This makes the competitiveness level of the investigated rural area to be higher than the national average and that of the county where it is placed. The competitiveness of the enterprises activating in the investigated rural area allowed them to overcome more quickly the shock generated by the economic crisis and even to find the resorts for the growth of their economic activity.

The local economy's sectors with the most economic performance are directly or indirectly linked to the capitalization of the agrarian resources and of the vantage ground of the proximity of urban markets (Galați, Brăila) and, more important, of harbors through which they can place both agricultural row materials and end products of industrial origin. Due to the local economy's performance, this has a significant potential to respond to the rural communities' sustainable development requests in either social or ecologic plan. The only necessary conditionality for satisfying these demands would, however be outlining a local strategy that is based on these principles and on the real opportunities to sustain it on the part of the business environment.

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