PERFORMANCE ANALYSIS OF ROMANIAN COMPANIES FROM CEREAL FIELD

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Abstract
This article presents the main specific features of the agricultural field and of the companies that operate in the field of cultivation of cereals (exclusively rice), leguminous plants and oleaginous seed producing plants in Romania. We chose this field of research because it is not sufficiently analyzed in the Romanian literature, although it is an important area of the national economy.

An analysis was made of the situation of the agricultural sector and production in Romania between 2013-2017, starting from the creation of a complex database (from the official data presented and published by the National Institute of Statistics, the Ministry of Public Finance, and the National Trade Register Office) and ending with the calculation and evaluation of specific performance indicators.

Key words: Agriculture, cereal companies, performance evaluation

JEL Classification: M40, O12, L25

I. INTRODUCTION

Agriculture sector has an important place in the economy of each nation. The management of lands and farms is a field whose main objective is to provide food to the inhabitants; however, at present, the overall understanding of agriculture is moving to a more comprehensive approach of agriculture, which underlines its functions outside the effective production and on its situation regarding the continuous improvement. Continuous improvement presents the progress that match the requests of the present situation, out of endangering the future needs of the generations, in the same time taking care of the nature and awareness of natural behaviors of ecosystems (Hornungová and Milichovský, 2018).

Agriculture is a high labor force field and we can reveals that a limited production indicator from the gross added value for this sector, is compiled and the comparable information on the import of labor into agriculture are compiled. Decreases of the share of the primary sector of the economy is based independent to the development and capitalization of economies (Byerlee et al., 2009), but in the same time its importance is still compelling in many rural areas. Certainly, its economic significance is broadly much higher in eastern and southern parts of Europe than in the west and north (according to EUROSTAT, 2013).

As an agricultural country, actions in agriculture are an important part of Romania's economy. Being successful in the market economy, the stock system has registered several achievements, which helps to build a group of companies with international advanced technology, flexible business strategies and strong competitive skills, achieved in a short time. However, serious structural contradictions, underdeveloped system reform, poor innovation and other issues have limited the development of agricultural companies. At the same time, it is common for these companies to carry out a regular activity, but lacking effective incentives and pursuing legislative constraints, which are real challenges for high-level managers, leading to poor operating performance.

II. EVOLUTION OF THE CEREAL COMPANIES IN ROMANIA

With the six largest agricultural areas in the European countries and although Romania is a country with the highest agricultural potential in Europe, it faces a very low yield of agricultural production, due to several factors.

At present, in Romania, a number of 8618 companies operating in the field of cereal production, more precisely, falling within the CANE code 0111 - Cultivation of cereals (exclusively rice), leguminous plants and oilseed plants. This class includes all forms of field cultivation of cereals, legumes and oilseeds. Cultivation of these plants is often combined within agricultural units.

The number of companies in the agricultural field registers an annual growth of 10% (according to the data published by the National Office of the Trade Register, Fig. 1 shows the structure of the companies with the code CANE 0111 existing in Romania at the end of 2017, noting that South-East Region has the largest
concentration of companies, namely the Constanța County with a number of 643 companies.

These companies registered a prolific activity, Romania becoming the main exporter of cereals in the European Union, at the end of May 2017, shows the data provided by the European Commission, analyzed by the analysts from KeysFin.

However, about 85% of the total agricultural labor force is overdue - working without remuneration, with regard to subsistence farming. In comparison, the medium percentage of unpaid labor in the agriculture filed in the EU is 72%, and in few cases lower in some countries (like Spain - 50%, France - 63.1%, Germany - 55.8%). Closing 2017 we are talking about a total number of 44,445 people, most being in the South Muntenia Region with a staff of 13176 employees, most of them being registered companies in Teleorman County (with 3503 employees). Their situation can be seen in Fig. 2.

As for the overall evolution of companies in the field of cereal cultivation (excluding rice), leguminous plants and oilseed plants, at the level of 2017 they registered a profit, being a full year in the agricultural field.
About 60% of the used agricultural area of Romania (8.2 million ha) is arable land, and of this area about two thirds are used for cereal crops. Thus, Romania is one of the 10 largest cereal exporters in the world (9th in the world for wheat exports and 6th for corn exports). Even if most of the sown area is used for cereal cultivation, it represents less than 25% of the total value of agricultural products (in 2015, EUR 14.2 billion).
As we presented above, the year 2017 recorded an important agricultural production per hectare (see Fig. 5 and 6), due to the fact that Romanian companies recognize the importance of investments in the field, focusing on modern technology equipment, with high efficiency.

III. PERFORMANCE OF CEREAL COMPANIES IN ROMANIA

Aspects like nature, environment, human health and security, animal welfare, as well as a general concern for the sustainability of modern agriculture are key aspects and concerns of agriculture field (economically and scientifically speaking), especially because of its rapid development in the past 70 years. Can be discussed two important tendencies: a continuous technological and structural development that is the basis of a major boost in efficiency, along with a (partial) purpose of issues and the growth of contracts to a more organic, unrefined economy and a more sustainable local agriculture.

Major evolutions registered by agriculture worldwide, and taking into account the expending concern of the population and different specialists (economists, engineers, researches, and not only) for better practices in the field of farming and its developments (not only in a positive sense), presents threat for the modern interdisciplinary science, as well as for the entire national economy.

Unfortunately, the research area in the economic field has been damaged by a fragmented approach, numerous methodological flaws and a limited unification of research results (Bordeianu and Moroșan-Dănilă, 2013). Next, we will analyze an evaluation of the performance registered by Romanian companies from cereal field, during the period 2013-2017.

There are several methods for the global appreciation of the value of an organization, which includes the processing of various information provided by accounting, such as profit, profitability, value of assets, value of debt, etc. The evaluation of the organizational performance goes beyond the limits of the evaluation of the organizational performance, an activity that involves the application of mathematical, econometric methods specific to the organizations, as well as of the evaluation of some economic-financial indicators through different computer programs (Moroșan-Dănilă, 2014).

The information collected from the Ministry of Public Finance and the National Institute of Statistics was based on the calculation of performance indicators of companies that have as their main activity the cultivation of cereals, leguminous plants and oilseed plants - CANE Code 0111, indicators presented in Tab. 1.

<table>
<thead>
<tr>
<th>Economic performance</th>
<th>Financial performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural income per hectare</td>
<td>Rate of return per hectare</td>
</tr>
<tr>
<td>Net result per hectare</td>
<td>Gross value added per hectare</td>
</tr>
<tr>
<td>Average daily labor productivity</td>
<td></td>
</tr>
</tbody>
</table>

Tab. 2 presents the indicators calculated for the evaluation of the performance of the Romanian companies, at the level of 2017 (according to CANE Code 0111).
Table 2 – Performance indicators of companies - CANE Code 0111, at the level of 2017

<table>
<thead>
<tr>
<th>Region / county</th>
<th>Agricultural income per hectare (tonnes/ha)</th>
<th>Net result per hectare (lei/ha)</th>
<th>Labour productivity, related to agricultural production (tonnes/person)</th>
<th>Average daily labour productivity, related to agricultural production (tonnes/day/person)</th>
<th>Labour productivity, based on turnover (lei/pers)</th>
<th>Average daily labour productivity, based on turnover (lei/day/pers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>4.050</td>
<td>313.82</td>
<td>839.61</td>
<td>3.37</td>
<td>424.5908.43</td>
<td>17051.84</td>
</tr>
<tr>
<td>North-West Reg</td>
<td>4.552</td>
<td>216.88</td>
<td>1170.30</td>
<td>4.70</td>
<td>434.156.38</td>
<td>1743.60</td>
</tr>
<tr>
<td>Center Reg</td>
<td>4.260</td>
<td>136.38</td>
<td>1338.56</td>
<td>5.38</td>
<td>312.556.44</td>
<td>1255.17</td>
</tr>
<tr>
<td>North-East Reg</td>
<td>4.039</td>
<td>227.68</td>
<td>936.29</td>
<td>3.76</td>
<td>458.126.24</td>
<td>1839.86</td>
</tr>
<tr>
<td>Southeast Reg</td>
<td>3.754</td>
<td>389.12</td>
<td>691.61</td>
<td>2.78</td>
<td>406.794.84</td>
<td>1633.71</td>
</tr>
<tr>
<td>South-Muntenia Reg</td>
<td>4.077</td>
<td>364.56</td>
<td>723.99</td>
<td>2.91</td>
<td>1330.510.09</td>
<td>5341.97</td>
</tr>
<tr>
<td>Bucuresti - Ilfov Reg</td>
<td>3.447</td>
<td>2523.93</td>
<td>107.27</td>
<td>0.43</td>
<td>523.550.72</td>
<td>2102.61</td>
</tr>
<tr>
<td>South-West Oltenia Reg</td>
<td>4.124</td>
<td>184.95</td>
<td>1492.56</td>
<td>5.99</td>
<td>390.000.00</td>
<td>1566.27</td>
</tr>
<tr>
<td>West Reg</td>
<td>4.067</td>
<td>261.93</td>
<td>90.00</td>
<td>3.98</td>
<td>478.588.52</td>
<td>1922.04</td>
</tr>
</tbody>
</table>

The main products from the cereal sector that registered the highest performance in the period 2013-2017 are presented in Fig. 7. The highest production in the last 5 years is recorded by wheat production, with a continuous upward trend.

![Figure 7 – Evolution of cereal production](image-url)

Importance information published by the European Institute of Statistics - Eurostat - shows that Romania takes the 3rd position in the EU in 2018, positioning after France and Germany, in respect of cereal production, with 31.89 million tons. Nonetheless, the information published by the Ministry of Agriculture unquestionably are more important and clear and show that there are only 30 million tons, of which the production of upright cereals in the summer represents 12 million tons.

With a total harvest of 19 million tons, given by the increase with 33% (in 2018 compared to 2017) of the production per hectare (7.8 tons / hectare), Romania takes the first position in European Union (for the second year), outrunning France that registered 12.59 million tons in 2018.

In terms of wheat production, our country ranks 4th in the European Union, registering 10.27 million tons, a growth of 2.36% compared to 2017 and a balance of 4.8 tons / ha, although, according to the Minister of Agriculture, Petre Daea, was a difficult year, in which "Romania was ravaged by a whole series of extreme natural phenomena". The production of sunflower increased to 3.35 million tons in 2018, being 15.01% higher than in 2017, at a revenue of 2.9 tons / ha. These information place our country again in the best in the European Union.

About the agricultural income per hectare, the highest productivity is in the North-West Region of Romania, due mainly to the warmer period of the longer year, as well as to the investments in the agricultural field, most of the activity being based on mechanized agriculture. The agricultural income per hectare is a specific indicator of the analysis of the agricultural performance that shows the profitability of the companies in the analyzed area.
IV. CONCLUSION

In the process of capitalizing on its potential, the agricultural sector in Romania has encountered various difficulties, under the influence of technical, economic, social and political challenges.

The placement of the agricultural sector in the national economy was achieved through the participation of agriculture in the formation of the gross domestic product (GDP) and in the employment. The relative significance of the agriculture filed in the formation of the national gross domestic product is given by the weight of the agricultural gross added value in the total gross domestic product. According to the literature (Busch, 2012), a low level of dependence on agriculture reflects a high degree of economic development at country level, based on the growth of other economic sectors, especially services and industry. At EU level, the gross value added from agriculture contributed 1.65% to the total GDP of 2016 (average of the 28 member countries), indicating a low economic dependence on this sector. From the statistics presented by Eurostat it follows that agriculture participates, on the analyzed time horizon with about 5% in the formation of the GDP of Romania, about 200% above the EU-28 average, also the general tendency is to decrease the relative significance of the agriculture field in the national economy.

The analysis of the performance of the Romanian agricultural companies is not performed according to the standards expected by specialists. Unfortunately, managers of agricultural companies face many problems and risks associated with the field, for example time being an additional factor compared to other areas of the national economy. Drought, frosts, floods are management priorities, compared to problems related to personnel fluctuations or reduced fuel consumption.

It is recommended to continue the research in evaluating the performance of agricultural companies, in order to support them in identifying the important factors that influence the obtaining, as well as the increase, of positive results in terms of efficiency (natural, human and labor resources), as well as the reduction of costs, losses, leading to a substantial competitive advantage over the competition. Unfortunately, Romanian agricultural companies compete with other companies in the EU (and only), which have a substantial share capital, but also additional sources of support (external subsidies and funding sources), so they being, directly and indirectly, to adapt rapidly and substantially.

V. ACKNOWLEDGMENT

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VI. REFERENCES