CRITICAL DIMENSIONS OF ROMANIAN AGRICULTURAL HOLDINGS' CAPTALISATION WITH PRODUCTIVE MEANS - SAMPLE EVALUATIONS

DIMENSIUNI CRITICE ALE CAPITALIZĂRII EXPLOATA□IILOR AGRICOLE ROMÂNEŞTI CU MIJLOACE PRODUCTIVE - EVALUĂRI PE EŞANTION

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Abstract: *Farms capitalization is a determinant of its economic viability, with sustainable contribution to increasing the competitiveness of the agricultural sector. A computation and model has been built for evaluation of the endowment of Romanian agricultural holdings with production means, estimating the total net investment value by types of agricultural machines and farm equipment. Clustering method was applied on appropriate statistical indicators of the sample farms according to the considered selection criteria, providing the basis for analyze. The article presents the results provided by farms sample analysis, showing regional profile assessments obtained at farm level and by legal status of the holdings.*

Key words*: agricultural farms, productive capital, sustainable development*

INTRODUCTION

Within the context of external imbalances and performance deficiencies of the agricultural sector, having as a source a number of causes at the micro level [Otiman, 2009], the paper addresses the study of factors generating non-performance in Romania's agricultural economy, by analyzing holdings technical capitalization.

As a promoter, or restrictive determinant of competitiveness, the development of quantitative and qualitative structural productive capital stock depends to a great extent on the ability to properly manage and use soil resources and, therefore, sustainability and economic development of farm.

The paper presents results obtained from applying a calculation model for evaluating capitalization farms with productive capital goods, based on limited information provided in field studies.

MATERIALS AND METHODS

The research used as information material the database obtained by processing the questionnaires applied in selected localities from all statistical regions of Romania, in the period 2007-2008[1]. It has been used a computation model designed to assess the updated cost of mechanical means, estimates of the replacement value of machinery, obtained by calculating the machinery depreciation cost and its present value represented by net investment. To obtain comparable values, intermediate operations were required to update the machines prices: nominal purchase prices were recalculated by deflation values by using the Consumer Price Index for industrial goods, provided by National Institute of Statistics, in 2009 as the reference period. Initial values were expressed in Euros, at the annual exchange rate provided by the National Bank of Romania, in the acquisition period and then adjusted to current exchange rate. The statistical group method was applied to the indicators corresponding to the analyzed holdings according to the considered selection criteria: regional, farm level and by legal status of holding [Rusali, 2010].

RESULTS AND DISCUTIONS

The evaluation outcome on the agricultural tractors, at regional farm level and by the legal status of holdings, i.e. natural person, or individual farm and juridical person, or commercial farm, in the studied sample of farms, are shown in Fig.1. Heading *Thou. RON/holding* represents the mean amount of net investment per farm. Detailed results include regional distribution of farm tractors in the sample by value, by type and class power and of trailers, trucks and land cars - net investment and depreciation costs. There are observed disparities between holdings by net investment and by the number of tractors in farm equipment, and uneven distribution relative

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to the amount of investment at regional level. The individual farms have much lower capitalization with tractors than of the legal persons, the average sample is estimated at 7618 RON on the PF farm, compared to, respectively, 68639 RON per PJ farm. The sample average net investment in agricultural tractors was estimated at 30163 RON per farm.

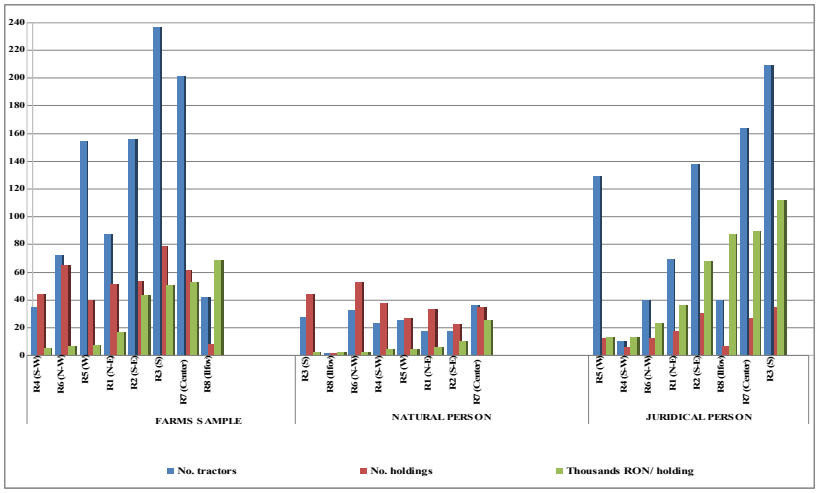


Fig. 1 - Distribution of farms sample, by agricultural tractors value, in regional profile and by juridical status

Evaluation results from tillage and seeding machines, at regional, farm level study and by the legal status of the farm are shown in Fig. 2.

The estimated average value of these machines amounted to 2098 RON on holding with the natural person legal status, while 26104 RON per legal holding. It was estimated a sample average value of 11041 RON per farm. Detailed results include regional distribution of farms in the sample by value for soil and planting machines, by type - net investment and depreciation costs and appropriate assessments and individual farms person. Fig. 2 shows extremely low values estimated for tillage and seeding machines, which indicates a major weakness of these types of basic machines working in the aggregate with tractors, as major shortcomings for the crop sector.

Fertilizing and chemical treatments application machines have a similar regional distribution shapes with the previous ones, but the amount of the average farm net investment is dramatically reduced.

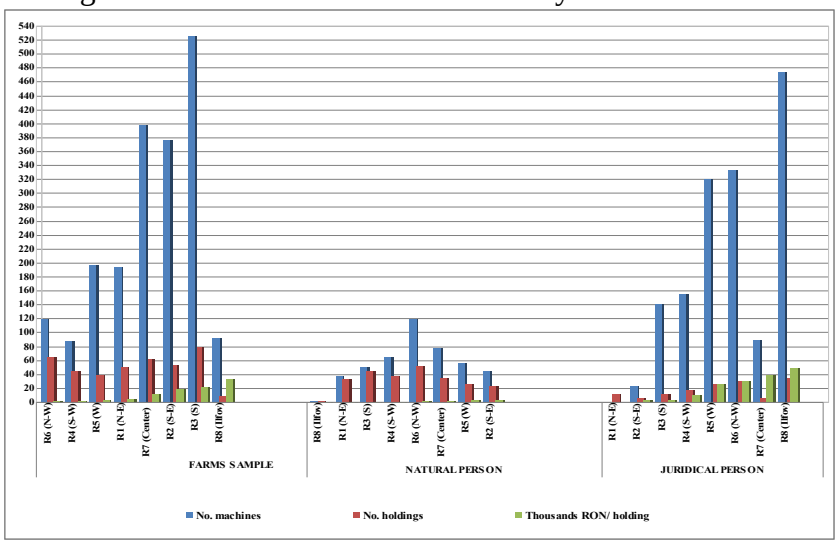


Fig. 2 - Distribution of farms sample by value of tillage and seeding machines, at regional level and by legal status

It has been estimated the value of these machines, on average, of 1165 RON on holding with natural person juridical status and of 4818 RON on the legal person holdings, resulting in a sample average of 2514 RON per farm.

Fig. 3 shows the results of the evaluations on combines and harvesters used in farms property, at regional, farm level study and by the legal status of the holding. The amount of the farm's average value of net investments on individual farms is clearly lower than that on commercial farms, due to different average physical size: from 0.3 ha, in North-West, to 56ha, in South-East, on the individual holdings and from 66 ha, in South-West to 888 ha, in South, on commercial farms. It is noted that, although there are imbalances between regions, investments in combines and harvesters grow in importance both as a record of survey and the distribution level. The estimated average value of these machines was of 4414 RON per farm with natural person legal status and of 45987 RON per legal person holding, while the sample average was estimated at 19773 RON per holding.

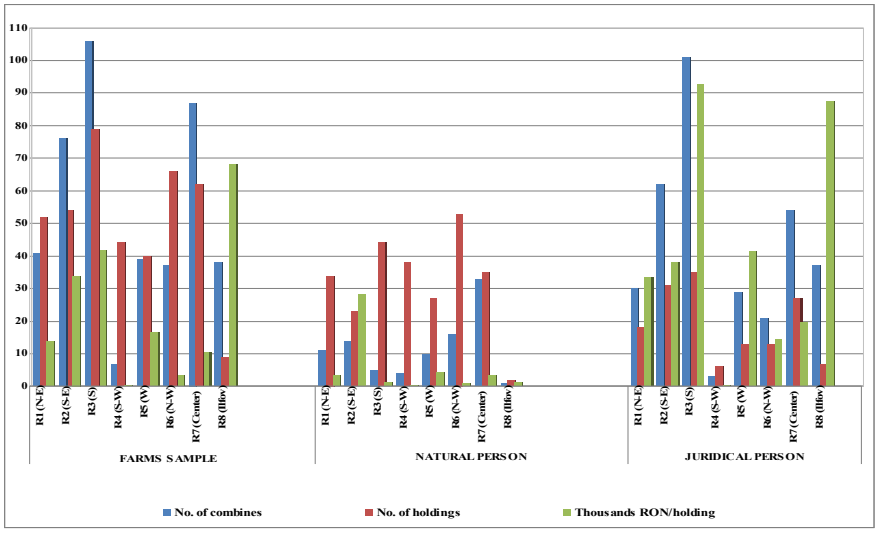


Fig. 3 - Distribution of farms sample by value of combines and harvesters, at regional level and by legal status

On other categories used in farm equipment, as they are the fixed and mobile irrigation facilities and the milking equipment and devices, the overall assessment of net investments amounted to 10476 RON on commercial farms, compared to 2515 RON on individual farms, while the average sample yielding a value of 5457 RON per farm. Of these, the irrigation facilities amounted 1679 RON /sample farm, almost totally (99,7%) equipped the commercial holdings, while the milking facilities amounted 3778 RON/farm, 66% distributed in commercial farms.

It has been estimated an average value of investments in mechanical means, used in sample farms property, of 18722 Euros per farm (at the exchange rate of 3.6827 RON / EUR), respectively, of 4836 Euros per individual farm and 42367 Euros on legal person holdings. With an endowment of Romanian farms almost 3 times lower, on average, comparing to EU-25 [EC, 2010], on which it was estimated the average value of investment in machinery for agricultural activities of 44300 Euros, the Romanian farms gap, dramatically deeper on small farms, is an indication of the shortcomings size that burden on sector's performance.

CONCLUSIONS

The outcome of the analysis arguments the need to modernize farms, massive investment in technical means with a significant public component, including agricultural mechanization and irrigation systems. Productive capital, vital for agriculture, will facilitate restructuring by developing farms and rural households, offering them the option of opening agricultural, food and non-agricultural markets.

In the Romanian rural areas small farms have threefold significance - socio-economical, environmental and cultural-, giving them a key role in improving regional competitiveness and sustainability in accordance with the requirements of cross compliance and social specificities of the historical areas. The study showed, however, large disparities in the existing technical equipment, both externally and internally, between individual farms and commercial, representing major restrictions to obtain profitable production enabling conditions of reinvestment. The estimates obtained show internal differences between farms and regions, and compared to EU investment in farms mechanization, which affects the external performance Romanian farmers, indicating the technical capitalization among the factors of non-performance in the rural economy.

Given that sustainable development is non-negative long-term sustainability, on rural areas this entails a vision of integrating these socio-economic strength structures and to benefit from support policies for rural areas, including agriculture and attract investment for modernization and capacity investment activities of farms with new production techniques.

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