

## PROFITABILITY IN SERVICE BUSINESSES - SUPPORT ACTIVITIES FOR CROP PRODUCTION IN NORTHWEST ROMANIA

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**Abstract.** The service business, i.e. support activities for crop production, through the existing business, is contributing to the development of service economy mainly towards other businesses, at national level. Each participant develops its activity within a competitive environment, dependent on the succession of seasons. The actors of this market, i.e. agricultural services for crop production are characterised by the varying number of participating companies, turnover rate, but mostly by means of their profitability indicator ratios. Profitability ratios characterise the economic units by effect to effect or effect to effort ratios. Evaluating the batch of competitors is a complex activity, which is achieved by using a set of information, methods and work tools. By using the turnover metric we are able to determine the competitive position of the market participant, but the results, that is, the effects, come to complete and enable us to establish, at one point, the average value of profitability ratios.

**Keywords:** turnover, profitability, support activities, metrics, crop production

### INTRODUCTION

Economic activity such as support activities for crop production is regulated and developed in a competitive environment. The actors of the service market – namely support activities for crop production – are economic entities whose number varies from one year to the next, carrying out their business in a legal manner and submitting annual reports and financial statements. The services providing support activities for crop production include: contract-based or paid agricultural activities; land preparation; establishing crops; crop treatment; crops spraying, including aerial application; pruning of fruit trees and vines; rice transplanting; beets thinning; harvesting; pest control (including rodents) in agriculture; maintaining the field in good agricultural and environment conditions; using irrigation equipment, as well as leasing agricultural machines with operators and teams of trained mechanical workers (Decision 187/2017).

Turnover evolution in every business providing support activities for crop production, subject to our research, reveals the income for the provided services, however it is not enough to assess just the turnover, being especially important to find the absolute measure of the net profit recorded by the actors of such market.

The profitability of the economic activities assessed by means of profitability ratios determined are the effect of the direct influence of internal and external factors on such service providers. It is the management quality of these service businesses providing support activities for crop production that makes the competition rules in such businesses and reduces their number in the Northwest geographical development region of Romania.

## MATERIAL AND METHOD

The information processed in my research has been taken from the annual financial statements, namely the Profit and loss statements, of the economic agents reporting their business under NACE code 0161 “Support activities for crop production”, for the period 2013-2015. The assessed batch operates within the Northwest Romania, namely 143 businesses of the five counties of the researched region. The research was conducted on 19 service business providing support activities for crop production based in Bihor, Cluj, Satu Mare and Cluj. The information has been processed according to information from financial reports at: [www. doingbusiness/financiar](http://www.doingbusiness/financiar). The assessment method is the economic and financial analysis, namely the analysis of profitability by using performance indicators as follows:

- Profit margin analysis

One of the most relevant indicators of relative calculation of profitability emphasises the relation between turnover as an expression of the trading function, and the corresponding profit after taxation, as an economic result. The calculation method (Hristea, A.M., 2013) is:

$$Rc = \frac{Pn}{CA} \times 100 \quad \text{where:}$$

Pn - net profit

CA - turnover

- Analysis of return on assets

As an expression of the efficiency of using the company assets, this is important both for shareholders, as a reward for the risks they have taken, but mainly for managers, in order to maintain their positions on the service market and to reach the company performance targets (Siminica, M., 2010):

$$Rf = \frac{Pn}{Kpt} \times 100 \quad \text{where:}$$

Kpt - total assets

Pn - net profit

1. Analysis of consumed resource profitability index

Also known as the cost profitability ratio, it reflects the correlation between an economic output and the costs incurred in order to achieve it (Hristea, A.M., 2013):

$$Rce = \frac{Pn}{C} \times 100$$

where:

Pn - net profit

C - total costs

- Analysis of income profitability ratio

It expresses the profitability of the activity developed by the company and reflects the profit per 100 lei income. It is a margin indicator that is formed after all the generated expenditures are covered. It represents the managers' contribution to the company's performance.

$$Rv = \frac{Pn}{TV} \times 100 \quad \text{where:}$$

Pn - net profit

TV - total income

## RESULTS AND DISCUSSION

The continuity and performance principles are a part of the development strategy of a company providing support activities for crop production and require the analysis of efficiency and profitability via business profitability ratios, namely: profit margin, return on equity, effectiveness of resource use and income effectiveness, for the services providing support activities for crop production of the batch assessed in this work.

### 1. Companies in Northern Transylvania

Companies reporting their business under NACE code 0161 “Support activities for crop production” have recorded the following evolution for the period 2013-2015.

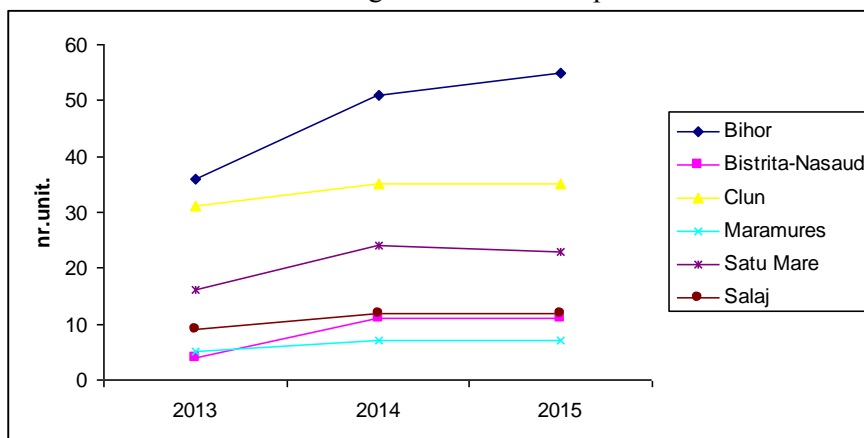


Fig. 1. The dynamics of the number of businesses providing “Support activities for crop production” in Northwest Romania

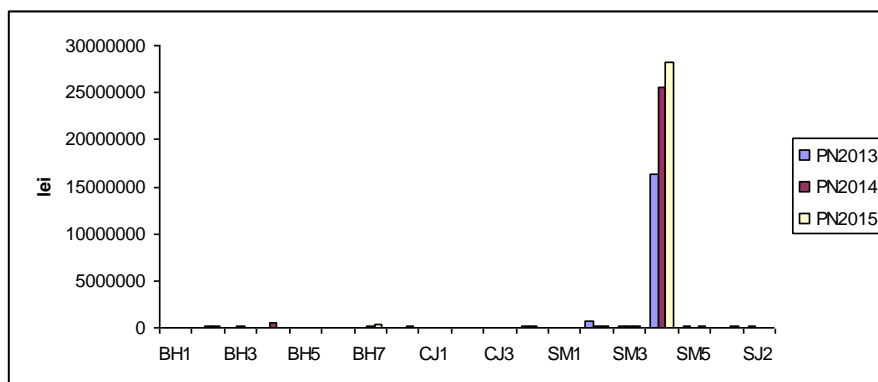


Fig. 2. The dynamics of the net profit indicator

The number of businesses in Northern Transylvania increased from 101 companies in 2013 up to 116 companies in 2014, and in 2015 the figure reached 143 businesses, namely

a 41.58% increase as compared to 2013's count. The research continued for a batch made up of the companies recording a turnover of over 450,000 lei (RON) i.e. 100,000 Euros in 2015. The batch analysed by means of profitability ratios includes 19 companies, namely 8 companies in Bihor County, 4 companies in Cluj County, 5 companies in Satu Mare County and 2 companies in Salaj County. There is a net profit margin increase of about 9.50% in 2015 as compared to 2014, and of 68.12% as compared to 2013 in the 19 assessed companies as a whole. The highest score is reached by a company based in Satu Mare - namely Promot Comimpex SRL.

## 2. Profit margin

Table 1

| Company                          | 2013   | 2014   | 2015   |
|----------------------------------|--------|--------|--------|
| DEDUMAF SERVICE SRL              | 4.70%  | 5.50%  | 1.23%  |
| DELIFAN SRL                      | 0      | 24.62% | 29.65% |
| GHRISANA PREST SRL               | 0.88%  | 8.28%  | 0.34%  |
| VIOCORN CONSTRUCT SRL            | 3.88%  | 16.36% | 1.69%  |
| SAINTAGRO SRL                    | 4.12%  | 3.23%  | 1.56%  |
| ACTIV SERV TRACOM SRL            | 1.09%  | 0.27%  | 0.12%  |
| ERDEIAGRO SRL                    | 1.15%  | 6.08%  | 7.00%  |
| PANAGROTEH SERVICE SRL           | 0.07%  | 0.75%  | 1.40%  |
| AGROUTILAJ SERVICE SRL           | 0      | 4.10%  | 1.60%  |
| AGRO COMB BC SRL                 | 4.10%  | 5.62%  | 7.33%  |
| AGROMEC TAGA SA                  | 0.61%  | 0.49%  | 0.68%  |
| NADI AGRO SRL                    | 18.57% | 15.76% | 4.20%  |
| AGROMEC FOIENI SRL               | 3.23%  | 0.54%  | 0      |
| AGRONOR SRL                      | 6.93%  | 2.86%  | 2.30%  |
| BETA PIRMAR COOPERATIVA AGRICOLA | 14.20% | 10.15% | 13.76% |
| PROMOT COMIMPEX SRL              | 7.74%  | 9.54%  | 10.29% |
| REMBAS SRL                       | 0.92%  | 0.50%  | 1.73%  |
| DANYON ALBERO SRL                | 4.38%  | 4.00%  | 13.38% |
| NATAN AGRICOL SRL                | 13.53% | 6.48%  | 1.36%  |

Source: author's processing

The profit margin rate reveals the correlation between the turnover as an expression of the trading function of the business, and the corresponding profit after taxation as the economic result of the difference between the income obtained from services of support activities for crop production and the costs incurred.

A profit margin increase of 20.43% was noted for Delifan SRL in 2015 as compared to the 2014 rate, as well as a 35.56% increase as compared to 2014's rate for Beta Pirmar Cooperativa Agricola, and for Danyon Alberto SRL the rate increase was of 234.50% in 2015 as compared to 2014. The rest of the companies recorded a rate decrease in 2015 as compared to 2014. Increase and decrease, respectively, result from internal and external factors bearing an effect over cost increase and, implicitly, decrease in profit margin or even loss. Moreover, the factors also had an influence over incomes and turnovers, respectively, which indicates a diminishing interest in managing such businesses, or even deficient or absent marketing. For an adjustment as accurate as possible of the trend developed by the

deriving indicator – the average value of profitability ratio indicator for the period 2011-2015 a polynomial function has been used.

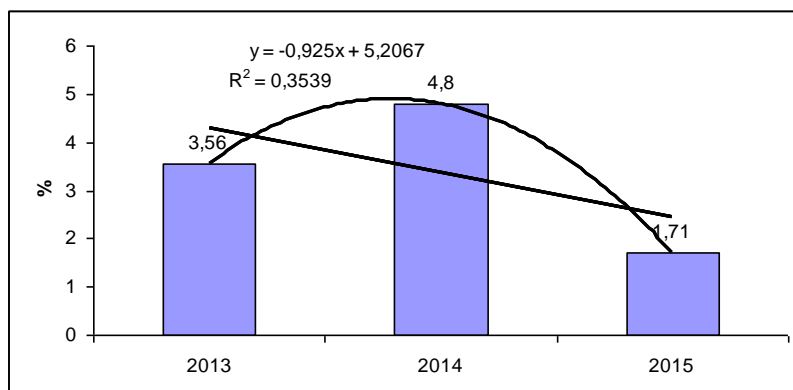


Fig. 3. Evolution of the average value of profit margin ratio indicator

### 3. Return on equity

Table 2

| Company                          | 2013      | 2014   | 2015   |
|----------------------------------|-----------|--------|--------|
| DEDUMAF SERVICE SRL              | 39.32%    | 20.42% | 8.97%  |
| DELIFAN SRL                      | 0         | 54.73% | 44.13% |
| GHIRISANA PREST SRL              | 14252.63% | 95.65% | 3.76%  |
| VIOCORN CONSTRUCT SRL            | 50.03%    | 84.34% | 8.87%  |
| SAINTAGRO SRL                    | 33.16%    | 23.26% | 12.07% |
| ACTIV SERV TRACOM SRL            | 128.85%   | 1.60%  | 3.73%  |
| ERDEIAGRO SRL                    | 11.13%    | 43.43% | 47.51% |
| PANAGROTEH SERVICE SRL           | 1.50%     | 22.95% | 33.18% |
| AGROUTILAJ SERVICE SRL           | 0         | 23.30% | 7.02%  |
| AGRO COMB BC SRL                 | 8.69%     | 9.86%  | 9.70%  |
| AGROMEC TAGA SA                  | 1.55%     | 1.46%  | 1.20%  |
| NADI AGRO SRL                    | 15.81%    | 17.46% | 4.38%  |
| AGROMEC FOIENI SRL               | 5.54%     | 0.97%  | 0      |
| AGRONOR SRL                      | 35.80%    | 10.67% | 9.18%  |
| BETA PIRMAR COOPERATIVA AGRICOLA | 19.92%    | 21.00% | 32.72% |
| PROMAT COMIMPEX SRL              | 25.68%    | 28.90% | 24.35% |
| REMBAS SRL                       | 21.90%    | 11.91% | 23.73% |
| DANYON ALBERO SRL                | 320.34%   | 89.34% | 85.12% |
| NATAN AGRICOL SRL                | 144.86%   | 26.85% | 13.46% |

Source: author's processing

Return on equity, by the correlation between net profit margin, most often expressed by an absolute metric and the assets invested in quality as a source of finance, mostly permanent assets, shows to what extent each monetary unit can create a plus of financial source intended for reinvestment. The increase of profit margin rates in 2015 as compared to 2014 is an effect of economic profitability increase, as well as of the total comprehensive

income. There has been a 9.39% profit margin increase at Erdeiagro SRL, a 44.57% at Panagroteh Service SRL, a 55.80% at Beta Pirmar Agricultural cooperative, a 99.24% at Remba SMI SRL. The rest of the companies recorded profit margin decrease, and one even recorded loss in 2015. The average value of return on assets rates for the period 2013-2015 requires a trend adjustment by applying the polynomial function.

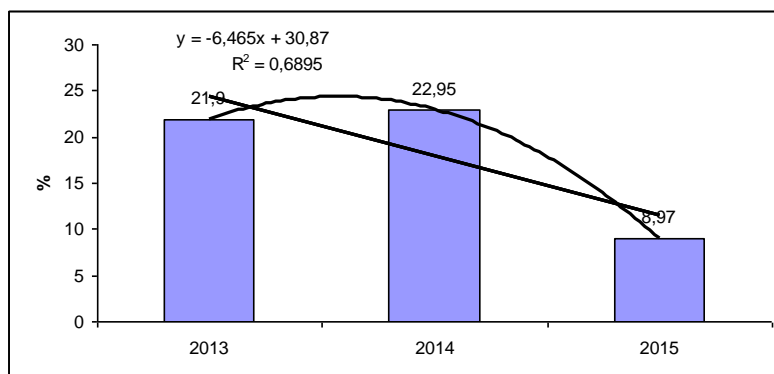


Fig. 4. Evolution of the average value of return on equity indicator

#### 4. Effectiveness of resource use

Table 3

| Company                          | 2013   | 2014   | 2015   |
|----------------------------------|--------|--------|--------|
| DEDUMAF SERVICE SRL              | 4.21%  | 3.55%  | 1.21%  |
| DELIFAN SRL                      | 0      | 17.59% | 23.96% |
| GHIRISANA PREST SRL              | 0.78%  | 9.74%  | 0.29%  |
| VIOCORN CONSTRUCT SRL            | 2.55%  | 19.11% | 0.82%  |
| SAINTAGRO SRL                    | 3.17%  | 2.67%  | 1.45%  |
| ACTIV SERV TRACOM SRL            | 0.76%  | 0.22%  | 0.12%  |
| ERDEIAGRO SRL                    | 1.08%  | 5.68%  | 7.32%  |
| PANAGROTEH SERVICE SRL           | 0.07%  | 0.74%  | 1.40%  |
| AGROUTILAJ SERVICE SRL           | 0      | 3.75%  | 1.49%  |
| AGRO COMB BC SRL                 | 4.76%  | 6.01%  | 6.52%  |
| AGROMEC TAGA SA                  | 0.59%  | 0.49%  | 0.68%  |
| NADI AGRO SRL                    | 10.22% | 15.52% | 4.17%  |
| AGROMEC FOIENI SRL               | 3.05%  | 0.55%  | 0      |
| AGRONOR SRL                      | 7.45%  | 2.91%  | 2.33%  |
| BETA PIRMAR COOPERATIVA AGRICOLA | 15.66% | 10.77% | 14.99% |
| PROMOT COMIMPEX SRL              | 7.90%  | 9.90%  | 11.44% |
| REMBASMI SRL                     | 0.90%  | 0.49%  | 1.73%  |
| DANYON ALBERO SRL                | 4.55%  | 4.19%  | 15.75% |
| NATAN AGRICOL SRL                | 13.79% | 3.42%  | 1.49%  |

Source: author's processing

Cost effectiveness or margin rates should mainly interest the managers of the businesses currently managed by them, in that they show the profit corresponding to the income obtained per costs incurred of RON 100, from intermediation services in the

agricultural trade. In 2015, the effectiveness of resource use increased for just a few entities in the researched batch, as compared to the previous year, that is, 2014. Thus, Delifan SRL recorded a 36.21% increase, Beta Pirmar Agricultural cooperative recorded a 39.18% increase, Promot Comimpex SRL recorded a 15.55% increase, and Danyon Albero SRL recorded a 275.89% increase. The rest of the companies recorded decrease. The increase of effectiveness of resource use is an effect of costs decreasing by 1.34% at the batch level in 2015 as compared to 2014, and the net profit percentage for the year 2015 has increased by 9.50% at batch level as compared to 2014. The average effectiveness of resource use index for the period 2013-2015 requires trend adjustment by applying a polynomial function.

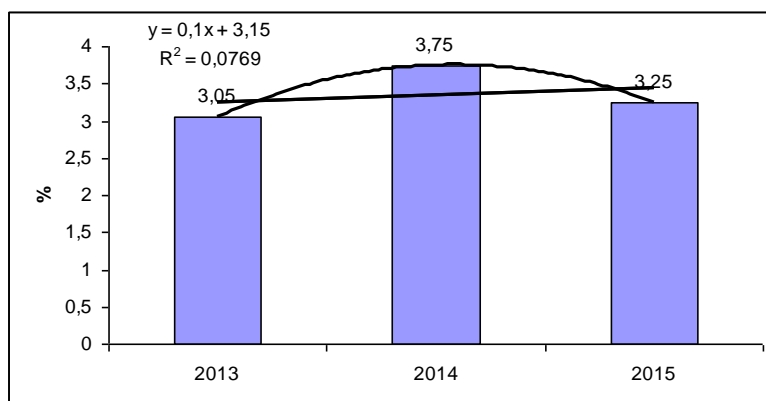


Fig. 5. Evolution of the average value of effectiveness of resource use indicator

## 5. Income profitability

| Company                          | 2013   | 2014   | 2015   |
|----------------------------------|--------|--------|--------|
| DEDUMAF SERVICE SRL              | 4.01%  | 3.41%  | 1.19%  |
| DELIFAN SRL                      | 0      | 14.58% | 19.33% |
| GHIRISANA PREST SRL              | 0.77%  | 8.78%  | 0.29%  |
| VIOCORN CONSTRUCT SRL            | 2.47%  | 15.57% | 0.81%  |
| SAINTAGRO SRL                    | 3.05%  | 2.59%  | 1.43%  |
| ACTIV SERV TRACOM SRL            | 0.74%  | 0.22%  | 0.12%  |
| ERDEIAGRO SRL                    | 1.06%  | 5.32%  | 6.79%  |
| PANAGROTEH SERVICE SRL           | 0.07%  | 0.73%  | 1.38%  |
| AGROUTILAJ SERVICE SRL           | 0      | 3.59%  | 1.46%  |
| AGRO COMB BC SRL                 | 4.51%  | 5.61%  | 6.05%  |
| AGROMEC TAGA SA                  | 0.58%  | 0.49%  | 0.68%  |
| NADI AGRO SRL                    | 9.11%  | 13.08% | 3.98%  |
| AGROMEC FOIENI SRL               | 4.68%  | 0.55%  | 0      |
| AGRONOR SRL                      | 6.84%  | 2.81%  | 2.27%  |
| BETA PIRMAR COOPERATIVA AGRICOLA | 13.20% | 9.54%  | 12.72% |
| PROMOT COMIMPEX SRL              | 7.25%  | 8.91%  | 10.09% |
| REMBAS SRL                       | 0.89%  | 0.49%  | 1.69%  |
| DANYON ALBERO SRL                | 4.33%  | 3.99%  | 13.30% |
| NATAN AGRICOL SRL                | 11.94% | 3.29%  | 1.47%  |

Source: author's processing

Income profitability, by the calculated rates, expresses the profitability of the company business, namely profit per income of RON 100. It is a rate preferred by managers as it reflects the effectiveness of the company trading business and shows the managers' contribution to the company performance. Income profitability increased in 2015 as follows: by 32.58% at Delifar SRL as compared to 2014, by 33.33% at Beta Pirmar agricultural cooperative as compared to 2014 and by 33.33% at Danyon Albero SRL as compared to 2014. The rest of the companies in the batch recorded decreased income profitability, denoting that managers were increasingly careful to diminish the degree of indebtedness, in order to prevent the decrease of profitability of the used assets.

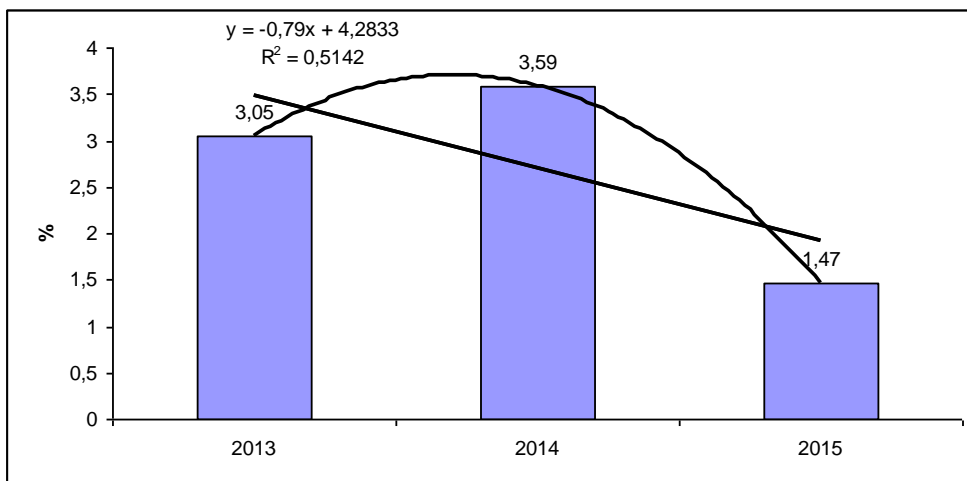


Fig. 6. Evolution of the average value of income profitability ratios

## CONCLUSIONS

This research focuses on individualising the four categories of profitability: profit margin, return on equity, effectiveness of resource use and income effectiveness, for the 19 companies assessed in a total batch of 143 companies performing services and operating in the Northwest of Romania, in 2015, their scope being "Support activities for crop production".

The analysis of profit margin of the studied companies strongly reveals the effect-effort and output-income ratios, respectively. The value of this indicator is increasing only where costs are very well managed by the business manager. A strong point for the companies having recorded cost cuts in 2015 as compared to 2014 and hence, a profit margin on the rise. A weak point for the companies having recorded cost increase for the mentioned periods.

The analysis of return on equity for the assessed companies reveals the effect-effort and output-asset ratios. The value of this indicator is increasing only in the situations where the assets were not decreased, and net profits increased as compared to the previous periods. A strong point for the companies whose 2015 results were higher than their 2014 results and a weak point for the companies having undergone loss in 2015 or recorded decreased output.

The analysis of effectiveness of resource use for the assessed companies reveals the effect-effort and output-cost ratios, respectively. The value of this indicator can be increasing only in the situations where the effort does not imply changes in terms of rise, and the result



does not record any decrease. A strong point for the companies whose 2015 costs were less as compared to 2014, and a weak point for the companies having undergone loss or decreased results based on higher expenses in 2015 as compared to 2014.

The analysis of income profitability for the studied companies reveals the effect-effort, economic result-turnover ratio, respectively, the efficiency of the trading activity as a result of encouraging the services delivered and the pricing and fees policy.

The trend of the average value of profitability ratios indicators for the assessed companies requires an adjustment by a non-linear function.

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