

ANALYSIS OF SOME PERFORMANCE INDICATORS OF AGRIBUSINESS FIRMS IN ROMANIA IN THE PERIOD 2020-2023

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Abstract

This study analyzes the financial performance of agribusiness firms in Romania, focusing on the determinants of profitability and economic sustainability. Various aspects of financial performance will be examined, including number of agri-business companies, as a whole and also by sub sectors; their turnover; the number of employees; import and export value of agricultural products; basic prices of agricultural products; production cost index for cereals, fruit and vegetable and livestock; government support (aid per ha) in 2023, to better understand the dynamics of this crucial sector of the economy. The study gives a summary of the difficulties and possibilities that agricultural companies encounter, emphasizing how market volatility and economic policies affect these businesses' financial stability. The report, which covered the years 2020–2023, offers a thorough examination of Romanian agriculture companies' financial performance, focusing on the essential factors that determine profitability and economic sustainability in this sector. The results show a significant diversity in the distribution of firms by sub-sector, with a predominant focus on grain and livestock production, while highlighting the importance of exports and government support per hectare in maintaining financial stability. Analysis of turnover, number of employees and value of imports and exports highlights the challenges of high production costs and volatility of base prices. The study also reveals the influence of government financial support, showing that firms in subsectors with higher subsidies tend to be more financially stable. The research methodology of the financial performance of Romanian agribusiness companies involved the collection of data from official sources, the analysis of time series to identify trends and financial stability, the comparison of performances between subsectors and the assessment of the impact of government policies, especially subsidies, on financial stability. The obtained methodology allowed for the formulation of some strategic conclusions and recommendations for the long-term support of the agricultural sector.

Key words: agriculture, performance, agribusiness companies, Romania

INTRODUCTION

The agribusiness sector in Romania is an important pillar of the national economy, having a significant impact on rural development, food security, and exports. However, the financial performance of firms in this sector varies considerably, influenced by economic, political, and climatic factors [14, 5, 6].

Sustainability in agribusiness is the ability to carry out agricultural activities in the long term, protecting the environment, maintaining economic profitability and supporting social well-being. This involves using green technologies, reducing the impact on natural resources, ensuring a sustainable profit for adapting to market demands and supporting rural communities through fair working

conditions [15]. At its core, sustainability in agribusiness involves a balance between environmental protection, economic viability and social responsibility, thus ensuring the continuity of resources and communities [13]. Sustainability in agribusiness also involves constant innovation to improve the efficiency of the use of resources such as water, soil and energy, thereby reducing waste and optimizing production processes. In addition, it involves adapting to climate change through resilient farming methods, such as growing drought-resistant varieties or improving water management. Sustainability also aims at traceability and food safety, ensuring quality products that meet consumer demands for ethical and ecological practices. Thus, sustainability in agribusiness means not only maintaining current resources, but also

ensuring an agricultural system capable of responding to future challenges.

Therefore, sustainability in agribusiness is directly linked to farm management which has to be flexible to adapt to the variations in the business environment [4, 11].

In recent years, agribusiness companies have faced major challenges, such as fluctuations in raw material prices, legislative changes, and many other obstacles.

This article aims to evaluate the performance of firms in the Romanian agricultural sector using various indicators.

Through a data-driven approach and case studies, the paper explores how agricultural policies, financing, and market conditions influence the performance and sustainability of companies [12].

The financial study aims to provide a comprehensive understanding of the factors that determine success in agribusiness, thus contributing to the development of effective strategies for enhancing competitiveness.

MATERIALS AND METHODS

The analysis is made during the period 2020-2023.

Empirical data were used from the National Institute of Statistics (INS) [10], EUROSTAT, [8] and the Ministry of Agriculture and Rural Development (MADR) [9].

The research methodology aimed to identify the indicators that formed the basis for analyzing the impact of the pandemic on agribusiness entities at the national level. These included:

- number of agri-business companies, as a whole and also by sub sectors;
- their turnover;
- the number of employees;
- import and export value of agricultural products;
- basic prices of agricultural products;
- production cost index for cereals, fruit and vegetable and livestock;
- government support (aid per ha) in 2023.

The research methodology regarding the financial performance of Romanian agribusiness companies involved the collection of secondary data from official sources

(National Institute of Statistics, Ministry of Agriculture and Rural Development, Eurostat).

Statistical analysis was based on time series analysis to identify trends and growth rate to assess the stability of financial indicators.

The performance comparison between various sub-sectors (cereals, vegetables-fruits, animals) aimed to present the particularities of each activity, and examining how government policies, particularly subsidies, affect financial stability in order to show how they affect it.

RESULTS AND DISCUSSIONS

The Agribusiness Sector's Economic Entities' Situation from 2020 to 2023

A thorough examination of the quantity of operational economic entities in the agricultural sector is shown in Figure 1, contributing to a comprehensive understanding of their distribution and dynamics across the analyzed period 2020-2023. The number of agri-business companies increased from 19,995 in the year 2020 to 20,832 in 2023, meaning + 4.18%.

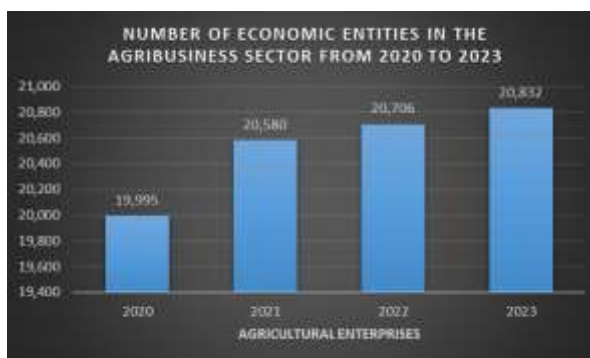


Fig. 1. Evolution of the Number of Economic Entities in the Agribusiness Sector

Source: own processing based on the data from [10].

Distribution of Economic Entities by Sub-Sectors (2020-2023)

Table 1 reflects the number of agri-business companies by CAEN Code of the subsectors and years.

The figures show the adaptability and stabilization of the Romanian agribusiness in the context of recent challenges.

In 2023, there were 13,065 agri-business firms, by +6.56% more than 12,260 in the year 2020. During the researched period of

2020-2023, the agribusiness sector in Romania exhibited stable evolution and even growth in some sub-sectors, reflecting

companies' adaptation to market demands and economic and climatic challenges.

Table 1. Distribution of Economic Entities by Sub-Sectors (2020-2023)

	Description Sub-sector	2020	2021	2022	2023	Growth in 2023 compared to 2020 (%)
111	Cultivation of cereals, legumes and oilseeds	8,094	8,582	8,831	8,900	9.96%
113	Cultivation of vegetables, melons, roots and tubers	1,094	1,167	1,078	1,100	0.55%
121	Cultivation of grapes	246	241	247	250	1.63%
124	Cultivation of stone and seed fruits	297	293	267	270	-9.09%
125	Cultivation of shrubs	652	658	636	640	-1.84%
141	Breeding of dairy cattle	557	556	562	570	2.33%
143	Breeding of horses and other equines	23	27	29	30	30.43%
145	Breeding of sheep and goats	215	238	243	250	16.28%
146	Raising pigs	358	343	324	330	-7.82%
147	Bird breeding	452	462	457	460	1.77%
149	Breeding other animals	272	274	262	265	-2.57%

Source: own processing based on the data from [10].

Cereals, legume, and oilseed cultivation has shown consistent growth, suggesting strong demand and export opportunities. The vegetable and fruit cultivation sector exhibited fluctuations influenced by climatic factors and variations in production costs.

Livestock farming remained relatively stable, with a slight decline in the pig sector, where main issues were related to animal health.

Overall, the distribution of economic entities in agribusiness shows a trend of consolidation and adaptation to market conditions, with well-established sectors and the capacity to attract new economic entities in essential fields.

Evolution of the Turnover of Economic Entities in Agribusiness (2020-2023)

The evolution of turnover shows how the total revenues of agribusiness entities have changed during the researched period.

Figure 2 highlights a significant increase in turnover in the agribusiness sector of Romania between 2020 and 2023, starting from 32,910 million RON in 2020 and reaching an estimated value of 114,158 million RON in 2023.

These results show an increase of 246.68% of turnover and also in demand and the economic performance of entities in the field.

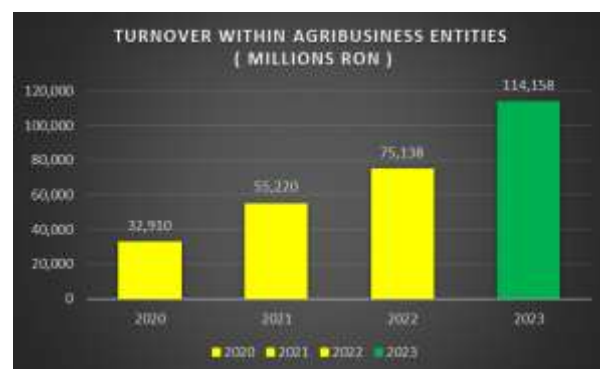


Fig. 2. Turnover within Agribusiness Entities
 Source: own processing based on the data from [10].

Number of Workers in Agribusiness Organizations from 2020 to 2023

Figure 3 highlights the evolution of the workforce needed to support the growth of this sector.

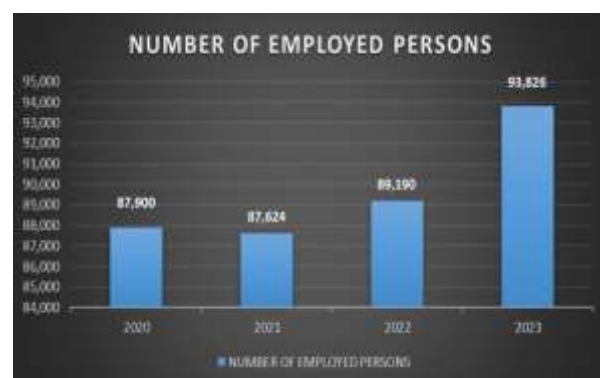


Fig. 3. Number of Employed Persons in agri-business in the Period 2020-2023
 Source: own processing based on the data from [10].

This indicator provides insight into the development and adaptation of the agricultural sector in the context of increasing demand and economic changes. The above graph shows how the number of employed people changed between 2020 and 2023. The number of employees increased gradually throughout the course of the four years, according to data analysis. Beginning with 87,900 workers in 2020, there was a little decline in 2021 as a result of the pandemic, followed by consecutive gains in 2022 and a more noticeable increase in 2023. There were 6.74% more employees in the last year than there were in 2020.

Import and Export of Agricultural Products in the Period 2020-2023

The evolution of imports and exports in agribusiness was analyzed in order to understand the sector's relationship with international markets. Imports and exports have shown an increasing trend during the period 2020-2023 (Figure 4). However, imports were significantly higher than exports each year, indicating a trade deficit and suggesting that new reforms in the agricultural sector may be needed.

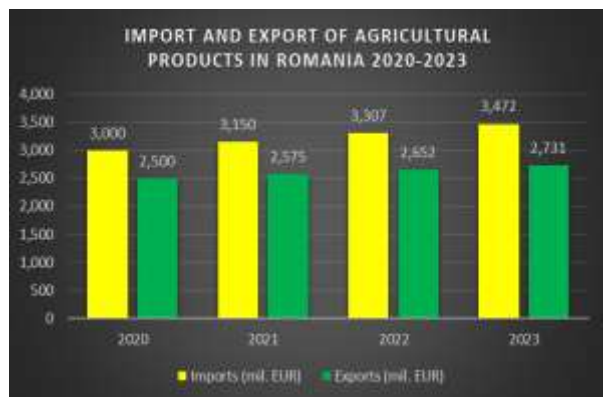


Fig. 4. Imports and Exports of Agricultural Products in Romania – 2020 – 2023 (Million Euro)

Source: own processing based on the data from [8].

In the studied interval, imports increased from 3,000 million Euro in 2020 to 3,472 million Euro in 2023 (+15.73%), while exports raised from 2,500 million Euro to 2,731 million Euro (+9.24%).

Evolution of Basic Agricultural Product Prices (2020-2023)

Figure 5 shows the evolution of prices for basic agricultural products in Romania

between 2020 and 2023, expressed in lei per kilogram for each product: wheat, barley, two-row barley, oats, and corn. All analyzed products experienced a significant price increase until 2022, followed by a decrease in 2023 [3].

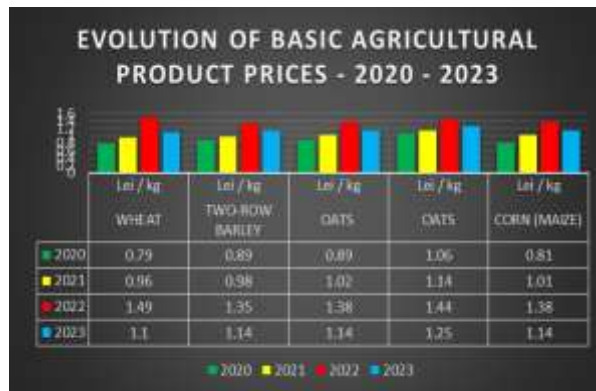


Fig. 5. Evolution of Basic Agricultural Product Prices in the Period 2020-2023 (RON/kg)

Source: own processing based on the data from [10].

The year 2022 appears to have been a peak year for the prices of basic agricultural products, followed by a decline in 2023, because of the unfair competition of the cereals coming from Ukraine on the Romanian market at lower prices and of a low quality, which raised the offer and affected the Romanian producers who carried out higher production prices and harvests were affected by the severe and longue drought.

However, in 2023, basic price for each cereal was higher compared to its level in the year 2020.

Evolution of Production Costs in Agribusiness (2020-2023)

Figure 6 presents the evolution of production cost indices in various sub-sectors of agribusiness in Romania between the interval 2020 - 2023.

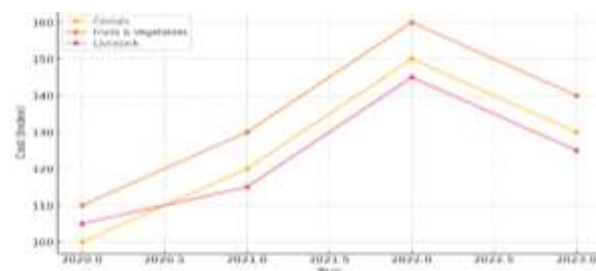


Fig. 3. Evolution of Production Cost index in Agribusiness (2020-2023) (%)

Source: own processing based on the data from [10] and [9].

In 2022, production cost index attained a peak for all the selected agricultural products. The trend lines show that the cost index in fruit and vegetable subsectors has the highest level, compared to cereals which come on the 2nd position and livestock which come on the last position.

Degree of Government Support for Agribusiness (2020-2023)

In the period from 2020 to 2023, government support for the agricultural sector in Romania experienced a significant evolution, particularly through the implementation of the National Strategic Plan (NSP) 2023-2027 [1], approved by the European Commission in December 2022. This plan allocates €15.83 billion for agriculture and rural development, focusing on modernizing farms, supporting young farmers, and promoting sustainable agricultural practices.

Starting in 2023, new payment schemes have been introduced, such as the Basic Income Support for Sustainability (BISS), with a planned amount of €96.47/ha in 2023, progressively increasing to €103.06/ha by 2027 [2].

Additionally, coupled support schemes for various crops and sectors have been implemented, such as for vegetables grown in greenhouses and tunnels, with an indicative amount of €2,100/ha in 2023.

For small farmers, the NSP provides support of up to €50,000 per farm, with a public non-repayable support intensity of up to 85% of eligible costs [7].

CONCLUSIONS

The agribusiness sector in Romania has demonstrated remarkable adaptability during the period from 2020 to 2023, with a significant increase in turnover, reflecting high demand and economic performance.

In particular, sub-sectors dedicated to cereal cultivation and livestock raising have strengthened, adapting to economic and climatic conditions; however, the trade imbalance persists, with imports exceeding exports. This trade deficit highlights the need for policies that support local production and

stimulate competitiveness in the international market.

The vegetable sector, for example, has experienced fluctuations in production, being affected by climatic conditions and variable production costs, highlighting vulnerabilities to external factors.

Government support has played a crucial role in the stability of the sector, especially through the National Strategic Plan 2023-2027, which allocated significant funds for farm modernization and support for young farmers. Through these funds, the agribusiness sector benefits from new subsidy schemes, including for essential crops and rural development projects.

The new measures have the potential to support the adoption of sustainable agricultural practices and attract additional investments in future technologies.

In conclusion, the agribusiness sector in Romania is on a positive trajectory and benefits from significant government support to maintain growth and ensure long-term sustainability.

REFERENCES

- [1] Agency for Financing Rural Investments, AFRI, Strategic Programme 2023-2027, <https://www.afir.ro/info-la-zi/planul-strategic-2023-2027>, Accessed on September 2, 2024.
- [2] Agroinfo.ro, 2022, The document of Ministry of Agriculture and Rural development regarding APIA subsidies: basic aid per ha maximum 125.41 Euro/ha in 2023 (Document MADR subvenții APIA: Cuantum hectar sprijin de bază maxim 125,41 euro/ha în 2023), <https://www.agroinfo.ro/politic/document-madr-subventii-apia-cuantum-hectar-sprijin-de-baza-maxim-125-41-euro-ha-in-2023>, Accessed on September 2, 2024.
- [3] Agrobusiness.ro, 2024, 2023 a record year for Romania's agriculture (2023, an record pentru agricultura României), <https://www.agrobusiness.ro/2023-an-record-pentru-agricultura-romaniei/2023/12/14/>, Accessed on September 2, 2024.
- [4] Aron, M.P., 2021, Performance Measurement and Characterization of Financial Indicators of Agricultural Companies in Romania, "Ovidius" University Annals, Economic Sciences Series Vol. XXI(2), 928-934.
- [5] Burja, C., 2015, The financial performance of agricultural holdings in Romania-regional analysis, Annales Universitatis Apulensis Series Oeconomica, Faculty of Sciences, "1 Decembrie 1918" University, Alba Iulia, 1(17), 1-6.

[6]Burja, V., Burja, C., 2017., Financial Performance And The Business Risk In Agricultural Sector Of Romania, Annals - Economy Series, Constantin Brancusi University, Faculty of Economics, Vol. 3, pp. 75-82.

[7]Dobre, R., 2023, APIA subsidies 2023. Coupled aid for vegetables in greenhouses- conditions and payments (Subvenții APIA 2023. Sprijin cuplat pentru legume în sere și solarii – condiții, plăți), Agointeligenta.ro, 2024, <https://agointel.ro/250438/subventii-apia-2023-sprijnul-cuplat-pentru-legume-in-sere-si-solarii>, Accessed on September 2, 2024.

[8]Eurostat data base, <https://ec.europa.eu/eurostat>, Accessed on September 2, 2024.

[9]Ministry of Agriculture and Rural development (MARD), <https://madr.ro>, Accessed on September 2, 2024.

[10]National Institute of Statistics, NIS, <https://insse.ro>, Accessed on September 2, 2024.

[11]Panait, I., Cucu, C.M., 2020, The evolution of Romanian agribusiness in the context of sustainable development of agriculture, Proceedings of the 14th International Conference on Business Excellence2020, pp. 1083-1097, DOI:10.2478/picbe-2020-0102

[12]Popescu, A., Marcuta, A., Tindeche, C., Angelescu, C., Marcuta, L., 2020, Profit and profitability of the commercial companies dealing with dairy farming. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, 20(1), 447-460

[13]Popescu, A., Tindeche, C., Marcuta, A., Marcuta, L., Hontus, A., 2021, Pesticides-A problem in Romania's agriculture? Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development 21(4), 477-486.

[14]Stoicea, P., Toma, E., David, L., Constantin, A.-R., Budileanu, A., 2023, Performance of large agricultural companies in Romanian agriculture, Scientific Papers Series "Management, Economic Engineering in Agriculture and Rural Development", 23(1), 773-782.

[15]Tindeche, C., Marcuta, A., Marcuta, L., Importance of the agricultural sector as a branch of the national economy, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, Vol. 14(4), 299-305.