

ANALYSIS OF THE PERFORMANCE OF THE ROMANIAN FOOD INDUSTRY

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The food industry is among the oldest industrial branches and is of particular importance for the national economy due to the role it plays in ensuring the food security of the population. The food industry in Romania is characterized by diversity and a large number of economic agents. After integration into the European Union, the food industry in Romania has experienced a series of transformations imposed on the one hand by the high level of competition and on the other hand by strict regulations in the field. The paper aims to present an overview of the food industry in Romania and the analysis of the main indicators that reflect its performance.

Key words: Food industry; Performance; Turnover; Gross result of exercise, SWOT analysis.

JEL Classification Codes: L66, M20, M40.

1. INTRODUCTION

The food industry is among the oldest and best developed industries in Romania and is of particular importance, food products being indispensable for the population. In the current context, dominated by the objective of protecting the environment, the food industry must respond to the challenges related to climate change, protecting biodiversity, food waste, and recycling packaging, all without losing sight of preserving product quality and guaranteeing consumer safety. The food industry can affect the environment through wastewater, pollutants emitted by means of transport, dust pollution, noise pollution and that generated by non-recycled packaging.

In the food industry, the issue of quality and safety of products offered to consumers is of utmost importance. Food products can affect the health and even the lives of consumers if they are produced, transported and/or stored in improper conditions. Producers are obliged to distribute on the market only safe foods that do not endanger the health of consumers in any way. Given this specific nature of the industry, the implementation of a quality system is of utmost importance. Consumer concern for food safety issues is one of the factors that decisively determines the volume of sales.

The paper aims to present an overview of the food industry in Romania based on available statistical data and an analysis of the indicators that reflect its performance.

2. LITERATURE REVIEW

The food and drink industry in the European Union faces a series of challenges in the context in which “the EU’s Common Agricultural Policy (CAP) is called to play an important role in implementing the European Green Deal’s vision and objectives” (OECD, 2023). The



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European Union has been the largest exporter of food and drink products in the world since 2013 (OECD, 2023, p. 80), with an export value of 182 billion euros and a trade surplus of 73 billion euros in 2022 (FoodDrinkEurope, 2023). Another major challenge is the change in consumer behavior, which tends to shift from traditional shopping towards online shopping (Duțu et al, 2020).

There are few scientific papers in the literature that analyze the Romanian food industry. Stanciu and Sârbu (2015) analyzed the Romanian food chain resilience assessment to critical situations. The authors performed an empirical analysis using Data Envelopment Analysis (DEA) to examine the efficiency of the firms considering all the companies and four sub-sectors. The study concluded that most of the companies analyzed operated under conditions of efficiency. Epuran et al (2018) conducted a study investigating the relationship between responsible wine consumption, food safety and sustainability. Mocan et al (2015) pointed out a number of six performance indicators "that companies within the food industry can use to regularly assess their internal performance and monitor progress".

Santeramo et al (2018) show that in the current context, there is a clear trend of using "certifications and labels as a market tool to build trust among consumers and producers" and this trend "is likely to expand in the near future".

3. MATERIAL AND METHODS

The paper is based on data published by the National Institute for Statistics of Romania and by Eurostat. Enterprise performance is a concept intensely debated in the specialized literature and does not have a unitary definition. Viewed at the macroeconomic level, performance can be reflected by a multitude of criteria and indicators. A performing industry must be characterized by competition, reach an acceptable level of economic profitability, contribute to employment and to balancing the country's balance of payments, and protect the environment.

Developments in this field must be viewed in a broader context and for comparison, in this paper data were used on production volume and net turnover reported by enterprises in the field in Romania, four other former socialist states and members of the European Union (Poland, the Czech Republic, Hungary and Bulgaria) and at the European Union level (27 member states) for the period 2015-2022. These data were used in the form of indices to better reflect the developments in each reporting entity.

To assess the financial performance of the Romanian food industry, the ratio between the gross profit for the year and the turnover, was calculated based on data published by the National Institute for Statistics of Romania. The share of direct exports in turnover reflects the contribution of this industry to international trade. The SWOT analysis of the food industry completes its picture and contributes to the projection of an overall vision of the analyzed industry.

4. RESULTS AND DISCUSSIONS

To outline an overview of the food industry in Romania and its impact on the national economy, data on the number of enterprises and the average number of employees are relevant (table 1). The issue of labor employment is of utmost importance for Romania in the context of the migration of skilled workers to developed countries in Western Europe. In recent years, to alleviate the labor crisis, the number of employees from countries outside the European Union, especially from Asia, has increased.

Table 1. Number of enterprises and average number of employees in Romanian Manufacture of food products (2022)

NACE codes	Number of enterprises	Average number of employees
Manufacture of food products – Total, of wich	9914	157489
101 Processing and preserving of meat and production of meat products	923	43996
102 Processing and preserving of fish, crustaceans and molluscs	38	1347
103 Processing and preserving of fruit and vegetables	717	5835
104 Manufacture of vegetable and animal oils and fats	105	3158
105 Manufacture of dairy products	541	11614
106 Manufacture of grain mill products, starches and starch products	382	7518
107 Manufacture of bakery and farinaceous products	5948	68787
108 Manufacture of other food products	1095	13379
109 Manufacture of prepared animal feeds	165	1855

Source: author's processing based on data published by National Institute for Statistics - Romania

It is noted that the most numerous are the enterprises in the bakery industry, which also have the largest number of employees, almost half of all employees in the food industry. This aspect is explained by the traditionally high consumption of bread by consumers in Romania. A study by the European Commission (2021) revealed that, in 2020, the price of bread in Romania was the lowest in the European Union, the highest being in Denmark.

In the period 2008-2022, there was an increase in the number of enterprises in the food industry. This increase was achieved as a result of divergent developments in the different branches. Thus, enterprises with the NACE code 103 *Processing and preserving of fruit and vegetables* recorded a significant increase, from 280 units in 2008 to 717 units in 2022. The number of enterprises with the NACE code 107 *Manufacture of bakery and farinaceous products* increased from 4477 in 2008 to 5948 in 2022. Significant increases were also recorded for 108 *Manufacture of other food products* and 109 *Manufacture of prepared animal feeds*, reflecting significant changes in demand. In the same period (2008-2022) there were decreases in the number of enterprises with the main activity 104 *Manufacture of vegetable and animal oils and fats*, from 243 to 105. Also, a significant decrease was recorded in the number of enterprises with the main activity 106 *Manufacture of grain mill products, starches and starch products*.

Most companies in the Romanian food industry are small and medium-sized enterprises. These companies face major challenges when it comes to research, innovation and sustainable development due to limited human, material and financial resources and the lack of adequate managerial skills. The Romanian food industry is characterized by fragmentation and a high level of competition. Given that prices are set by the relationship between supply and demand, cost control is one of the factors that can ensure the achievement of the proposed performance. In recent years, competition in the food sector has intensified, partly due to the emergence of a new category of production units: these are micro-production units within large stores that have appeared in all major cities in recent decades. In terms of sales volume, these units represent a competitor that cannot be neglected.

Tables 2 and 3 present the production volume and net turnover indices for enterprises with the activity Manufacture of food products in Romania, Bulgaria, the Czech Republic, Hungary, Poland and for the European Union (27 member states), for the period 2015-2022.

Table 2. Manufacture of food products - Production (volume)

Calendar adjusted data, not seasonally adjusted data, Unit of measure: Index, 2015=100

Geopolitical entity/Year	2015	2016	2017	2018	2019	2020	2021	2022
European Union - 27 countries (from 2020)	100.0	101.6	102.8	103.7	104.9	103.3	107.0	108.2
Bulgaria	100.0	102.2	105.0	104.3	109.4	106.8	113.4	122.0
Czechia	100.2	100.7	102.2	105.9	107.3	107.9	113.0	111.3
Hungary	100.0	101.7	102.6	106.3	111.4	112.4	121.3	130.6
Poland	100.0	106.5	113.5	118.3	122.5	123.1	132.0	145.0
Romania	101.1	110.2	114.2	116.3	118.0	114.5	119.5	123.4

Source: author's processing based on data published by Eurostat

It is observed that the food industry in Romania produced increasing volumes, the only exception being the pandemic year 2020. The best evolution was recorded by the food industry in Poland, followed by that in Hungary. All the countries analyzed had evolutions above the average recorded at the European Union level.

Table 3. Manufacture of food products - Net turnover

Calendar adjusted data, not seasonally adjusted data, Unit of measure: Index, 2015=100

Geopolitical entity/Year	2015	2016	2017	2018	2019	2020	2021	2022
European Union - 27 countries (from 2020)	100.0	101.6	106.9	107.5	111.1	110.7	117.2	139.7
Bulgaria	99.9	105.0	108.5	113.2	120.9	123.3	:	:
Czechia	100.0	97.9	102.7	104.9	110.0	113.3	119.5	141.5
Hungary	100.0	101.7	102.7	105.2	109.8	111.7	121.2	128.8
Poland	100.0	107.4	118.6	122.4	130.1	133.1	149.5	203.9
Romania	100.9	104.7	109.5	117.2	123.1	126.2	150.3	186.7

Source: author's processing based on data published by Eurostat

In table 3 it can be seen that in the case of Romania there was a significant increase in the net turnover of enterprises in the food industry, well above the increase recorded at the EU-27 level. But below that recorded by the food industry in Poland. In order to determine the financial performance recorded overall by the food industry in Romania, the value of the ratio between gross result of exercise and turnover for *Manufacture of food products* was calculated for the year 2022 and detailed by groups.

Table 4. Gross result of exercise/ turnover ratio (%) for enterprises with main activity Manufacture of food products (year 2022)

CANE Rev.2 (economic activities – divisions and groups)	Turnover (T) (RON)	Gross result of exercise (GRE) (RON)	GRE/T ratio (%)
10 Manufacture of food products, of wich:	75683735249	4479766039	5.92
101 Processing and preserving of meat and production of meat products	21219972254	871193146	4.11
102 Processing and preserving of fish, crustaceans and molluscs	856494305	51150741	5.97
103 Processing and preserving of fruit and vegetables	3822862037	226427039	5.92
104 Manufacture of vegetable and animal oils and fats	11604360201	1302513218	11.22
105 Manufacture of dairy products	8439708380	392126125	4.65

106 Manufacture of grain mill products, starches and starch products	6576106684	104027910	1.58
107 Manufacture of bakery and farinaceous products	14705559063	1102841006	7.50
108 Manufacture of other food products	5930494667	326360703	5.50
109 Manufacture of prepared animal feeds	2528177658	103126151	4.08

Source: author's processing based on data published by National Institute for Statistics – Romania

It is observed that the highest performance was recorded by enterprises with the main activity *Manufacture of vegetable and animal oils and fats*, and the lowest by enterprises with the main activity *Manufacture of grain mill products, starches and starch products*. Enterprises in the *Manufacture of bakery and farinaceous products* group have a performance above the average recorded at the industry level.

In the first years following Romania's integration into the European Union, the financial performance of the food industry was modest, even being negative in certain years, but starting with 2015, things changed significantly, as can be seen in Figure 1. Thus, the ratio between gross result of exercise and turnover improved starting with 2015 and reached a maximum value in the pandemic year 2020, probably due to the creation of food stocks by the population.

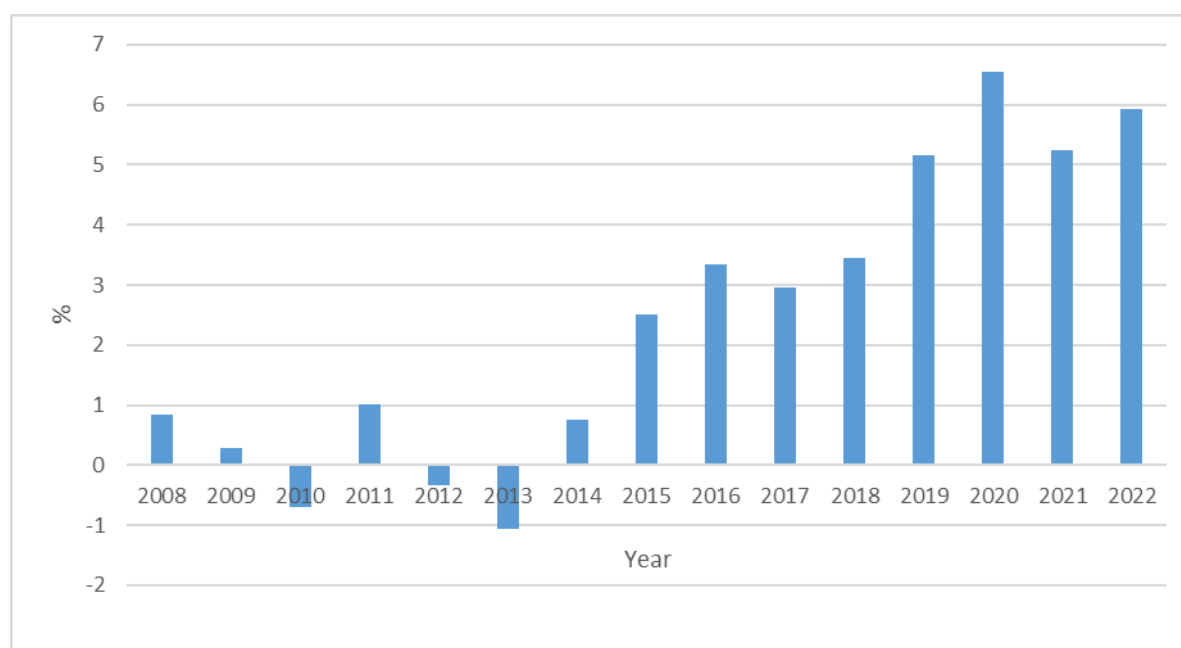


Figure 1. Gross result of exercise/ turnover ratio (%)

Source: author's processing based on data published by National Institute for Statistics – Romania

The share of direct exports in the turnover recorded by Romanian food industry enterprises was insignificant in the first years following Romania's integration into the European Union (2007), as can be seen in Figure 2. This share has increased continuously since 2008 and reached 10.16% in 2014. Another jump was in 2021, when the share reached 13.16%, the maximum of the analyzed period. However, the share of direct exports in the turnover of the Romanian food industry is modest. Imports of food products are much higher, Romania recording a significant trade deficit in this regard.

Technological developments are also visible in the food industry, especially through the transition from work on the product to the administration of computer programs that control the machines with which the products are made. A number of operations that were previously performed manually are now performed with the help of specialized machines. Computerization and automation have led to an increase in expenses for management and control activities at the enterprise level. Digitalization has also influenced the way consumers make purchasing decisions (Oancea, 2023), with the decline of the printed press and the dominance of online information sources already visible today. After the transition to a market economy, large units, in particular, have invested in the acquisition of modern machines, the food industry being one of the most dynamic in this regard, with considerable investments. Profitable enterprises have invested in taking over other production units in the field. Currently, a number of enterprises in this sector sell part of their products for export to markets in the European Union and beyond.

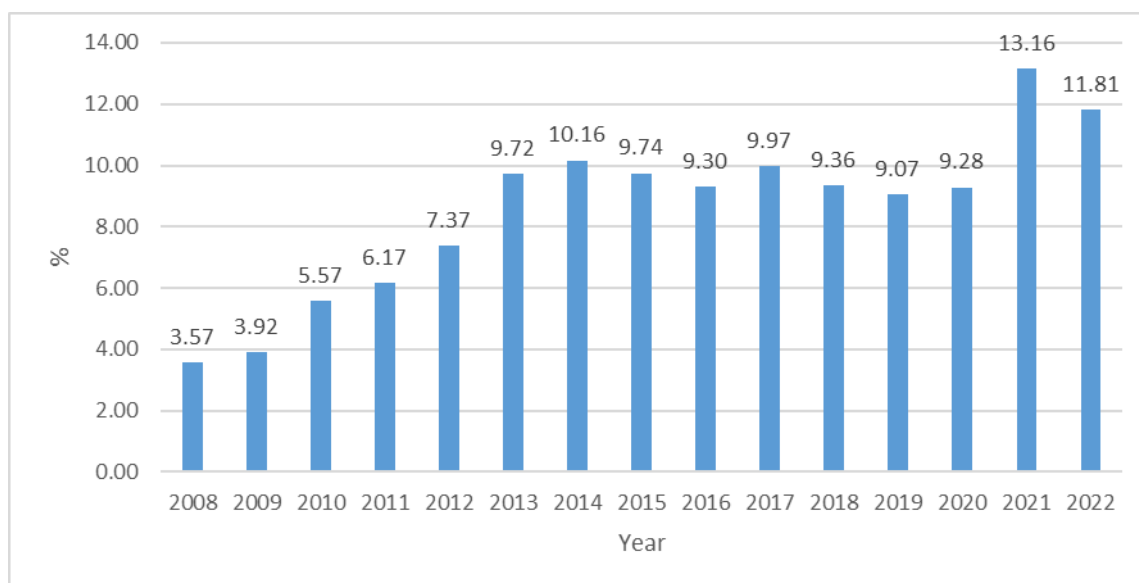


Figure 2. Direct exports / turnover ratio (%)

Source: author's processing based on data published by National Institute for Statistics – Romania

In recent years, the specialized literature has observed a "higher number of research studies related to novel biodegradable food packaging", which proves the increasing attention and importance given to this aspect (Popescu et al, 2020).

In 2022, food prices in Romania were the lowest in the European Union and represented 71% of the average recorded at the union level, at the opposite pole being Luxembourg with 122% (Eurostat, 2023).

Given the particular importance of the food industry in the Romanian economy and the problems it currently faces, organizing an accounting information system as a support for decision-making is gaining increased importance. In conditions of fierce competition, organizing a management accounting information system that responds to the requirements of managers can represent an asset of the enterprise, a competitive advantage. Medium and large companies in the food industry organize and manage accounting in separate departments, led by a financial director, chief accountant or other person authorized to perform this function.

Small companies manage accounting outsourced, through an accounting service contract. Accounting information must be obtained promptly to be useful to managers. Management accounting is useful to managers when it provides them with information that improves decisions

made regarding strategy, planning and control. In food industry companies, stocks usually have a rapid turnover, due to the specifics of the branch and their perishability. The methods used for stock valuation thus acquire increased importance. Regarding sales, some large companies in this industry have a chain of their own stores that ensure sales for a significant percentage of the total production.

SWOT analysis of the food industry in Romania

SWOT analysis provides an image of the situation of a business or a field of activity, regarding both the internal potential and limitations as well as the opportunities and threats coming from the external environment.

Strengths:

- ✓ Romania is a member of the European Union and producers have access to the common market;
- ✓ The existence of a tradition in the field and of research centers;
- ✓ Labor and raw material costs are lower than in Western European countries;
- ✓ The existence of factories in the food industry stimulates the activity of agricultural producers;
- ✓ Romania's population and the growing economy ensure the sale of a good part of the production on the domestic market;
- ✓ Romania's geographical position favors the sale of production on markets outside the European Union.

Weaknesses:

- ✓ Erosion of consumers' purchasing power due to high inflation in recent years;
- ✓ The high share of processed food imports;
- ✓ Excessive fragmentation of the agricultural and food sector.

Opportunities:

- ✓ Growth of the national and global economy;
- ✓ Increasing living standards worldwide, especially in developing countries, will increase the demand for food products;
- ✓ The growing demand for healthy foods can stimulate production;
- ✓ Possibility of making investments from non-reimbursable European funds;
- ✓ Increasing demand for organic and local products;
- ✓ Integration of new technologies into the production process.

Threats:

- ✓ Growing labor shortage – demographic decline and emigration exert pressure on the labor market, with negative effects on the business environment. The number of foreign workers who are admitted each year to the local labor market does not cover the personnel shortage in the economy;
- ✓ Intense competition – trade agreements allow global producers access to the local market;
- ✓ Increasing inflation – Romania has an inflation rate above the average recorded at the European Union level;
- ✓ Increase in production costs in general and in energy and labor costs in particular;
- ✓ Demographic decline – causes a decrease in the number of customers on the local market and difficult access to labor.

5. CONCLUSIONS

In the Romanian food industry, competition is intense and achieving performance is conditioned by the company's ability to control costs and create value for stakeholders. Given the specific nature of the production carried out, the use of non-financial indicators has an increased importance that derives from customer expectations regarding food products. In this context, these indicators must be monitored with increased attention since the level of sales is conditioned by customer perception of the company and its products.

Under current conditions, the implementation of genuine social and environmental accounting within food industry enterprises in Romania is becoming a necessity.

The food industry in Romania is a basic component of the national economy, is spread throughout the country and ensures the employment of a significant part of the workforce. The large number of existing enterprises and the diversity of activities ensure competition on the market and a high capacity to cope with economic crises.

The financial performance of the food industry in Romania has improved in recent years but is below the level recorded in other sectors of activity. An improvement was also recorded in the share of direct exports in turnover.

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