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Article

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Analysis of Performance from Processing and Preserving of Healthy Food in Romania

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Abstract: In the context that the world's population is constantly growing, and scarcity of natural resources is becoming a serious problem in recent years, the food industry is based increasingly on a more healthy life by providing products, both quantitatively and especially qualitatively. Due to external factors and not only food alters slightly, and the duration of storage is reduced. Thus, to ensure consumption throughout the year and anywhere on the planet, food products shall be subject to processing and preserving. The aim of the study is to analyze the performance by using the specific indicators in the processing and preservation of white meat and of fruit and vegetables, products that provide food healthfully for the population. The main source of information is the National Agency for Fiscal Administration and the analyzed period is 2008 - 2015, because until this year were available the necessary information, which allowed the description sector's evolution both during the financial crisis, and after its completion. From this study, it was found that the processing and preservation industry of healthy food in Romania is quite powerful and has seen a continuous development.

Keywords: performance; turnover; food industry; healthy food

JEL Classification: M49; O13; O14; Q22

1. Introduction

In order to survive, man needs energy, and the main way to acquire it is nutrition. Nutrition influences most people's health, being a volunteer and conscious process, which is why it is educated. Foods contain various nutrients that perform different functions in the body. If some build and repair tissues, others provide energy or eliminate toxins. Therefore, it is recommended to consume various foods containing all the nutrients in optimal quantities and proportions, which allow the harmonious development of the organism, by maintaining the health status and preventing the illnesses, ie a healthy diet.

A complete, balanced and diversified diet includes regular consumption of ***fruits and vegetables***, which provides a substantial supply of vitamins, minerals, fiber and antioxidants, but meat should also be absent, which is the most important source of high biological value protein. ***White meat*** (poultry - chicken, turkey, goose, duck etc. and fish) is regarded as a healthy product, because it has less fat compared to red meat.

But fruits and vegetables are seasonal and easily altered due to micro-organisms and enzymes, a process encountered in white meat preparations, which reduces their shelf-life. That is why the processing and preservation activity has developed and developed with technological means able to preserve most of the organoleptic qualities of fruits, vegetables and white meat, products considered healthy for the population's diet.

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2. Literature Review

The rich tradition of financial reporting has evolved continuously to record and communicate the company's performance, and in an era of globalization, which implies a steady increase in competitiveness and increased mobility of financial flows, new performance standards are required that go beyond the economic sphere. (Apostol, 2015).

There are several concepts of performance in the literature. Thus, some authors (Berheci, 2010) consider the performance to be *a success, a result of the action* or *the action itself*. Other authors (Siminică, 2008) consider that performance is the extent to which a company satisfies the requirements of the internal environment as well as externally through the optimal combination of efficiency and effectiveness. Lately, it has become a growing concern for specialists to study performance in the context of sustainable development (Christophe, 2000; Bețianu, 2008 et al.). In this context, some authors claim that profit has been, is, and will be, the necessary condition for ensuring sustainable development, but society wants transparency in its way of forming. (Mironiuc, 2009).

In the evolution of company performance systems, the following stages can be identified (Achim, 2009):

- During 1960 - 1970, performance is shown by indicators that define the size of the company, such as turnover and total assets;

- During 1970 - 1980, the performance is expressed by profitability indicators such as net profit, earnings per share, price earnings ratio **(**PER);

- During 1980 - 1990 highlights the problem of liquidity released by economic activity expressed by indicators of cash flow;

- During 1990 - 2001 focus to value creation concepts expressed through: the cash flow return on investment, economic value added, market value added;

- 2001 - present, performance is defined in terms of value creation, subordinate to the desideratum of sustainable development.

The healthy food processing and preserving industry is a component of the food industry and is regulated by a series of international and national rules.

Thus, at European level, the European Parliament and the Council of the European Union approved Regulation 178/2002 on the General Principles and Requirements of Food Law, as well as on the establishment of the European Food Safety Authority. On September 1, 2005, experts from the food industry, along with representatives of specialized international organizations and the Codex Alimentarius Commission, a body set up by the United Nations Food and Agriculture Organization (FAO) and the World Health Organization (WHO) to develop food standards, published the ISO 22000 Food Safety Management Systems - Requirements for any organization in the food chain, which is intended to ensure global food security.

At the national level, the Ministry of Agriculture and Rural Development issues orders regulating the food industry and coordinates the National Veterinary and Food Safety Authority, which functions as a regulatory and controlling authority in the veterinary and food safety sector and is represented at county level by the Sanitary Veterinary and Food Safety Directorates and at the local level by the Sanitary Veterinary and Food Safety Departments.

3. Research Methodology

The study aims to capture the main characteristics of performance in the production, processing and preserving of fruits, vegetables and white meat in Romania, products considered indispensable for a healthy and diversified diet.

The nature of the research has a conceptual dimension and a methodological one, and the qualitative and quantitative approach of the subject is through a descriptive and comparative analysis of the specific performance indicators.

The analysed period is between 2008 - 2015 and the main source of data is the National Agency for Fiscal Administration. In order to capture the main aspects of the evolution of the performance of the processing and preserving industry of fruit, vegetables and white meat in Romania, there was a reorganisation of the activities within the food industry in the sense that only those activities specific to the subject treated within three major sectors of activity, according to the classification of activities in the Romanian economy, were analyzed, namely:

• production, processing and preservation of meat and meat products (NACE code 101):

- processing and preserving of poultry meat (NACE code 1012);

• processing and preserving of fish, crustaceans and molluscs (NACE code 102);

- processing and preserving of fish, crustaceans and molluscs (NACE code 1020);

• processing and preserving of fruits and vegetables (NACE code 103);

- processing and preserving potatoes (NACE code 1031);

- manufacture of fruit and vegetable juices (NACE code 1032);

- processing and preserving of fruits and vegetables (NACE code 1039).

The study adds value to the state of knowledge in this field by making a short presentation of the processing and preserving industry of fruits, vegetables and white meat in Romania in the period 2008 - 2015, i.e. the period during the economic and financial crisis and the after, the data for 2016 are not yet available.

4. The Analysis of the Performance Evolution of the Processing and Preserving Industry of Fruits, Vegetables and White Meat from Romania

The activity of processing and preserving fruits, vegetables and white meat from Romania has the most features of a sector in a slight increase. A first aspect that highlights this is the number of companies operating in this sector, according to the data in Table 1:

Table 1. Dynamics of the number of companies in the industry

Elements	2008	2009	2010	2011	2012	2013	2014	2015
No. companies with turnover> 0	**307**	**308**	**311**	**308**	**322**	**329**	**338**	**363**
Processing and preserving of poultry meat	41	43	44	43	45	43	43	37
Processing and preserving of fish, crustaceans and molluscs	34	31	29	30	30	28	27	31
Processing and preserving potatoes	13	13	12	15	13	16	14	15
Manufacture of fruit and vegetables juices	33	40	41	39	40	42	59	60
Processing and preserving of fruit and vegetables	186	181	185	181	194	200	195	220
Evolution of the number of companies		1	3	-3	14	7	9	25
Dynamics of the number of companies		*0,33%*	*0,97%*	*-0,96%*	*4,55%*	*2,17%*	*2,74%*	*7,40%*

Source: https://www.anaf.ro/indicatori/indfinanciari.html and author's processing

Based on the data in Table 1, it can be noticed that the number of operating companies in the analysed sector has steadily increased (except for 2011, when the number of companies registered a small decrease by 0.96%) from 307 companies in 2008 to 363 companies in 2015. It can also be seen that the largest share (over 50%) is held by companies in the fruit and vegetable processing and preserving sector (NACE code 1039). This can also be seen in figure no. 1, which presents schematically the structure of the analysed sector in 2015, when the largest number of companies was registered.

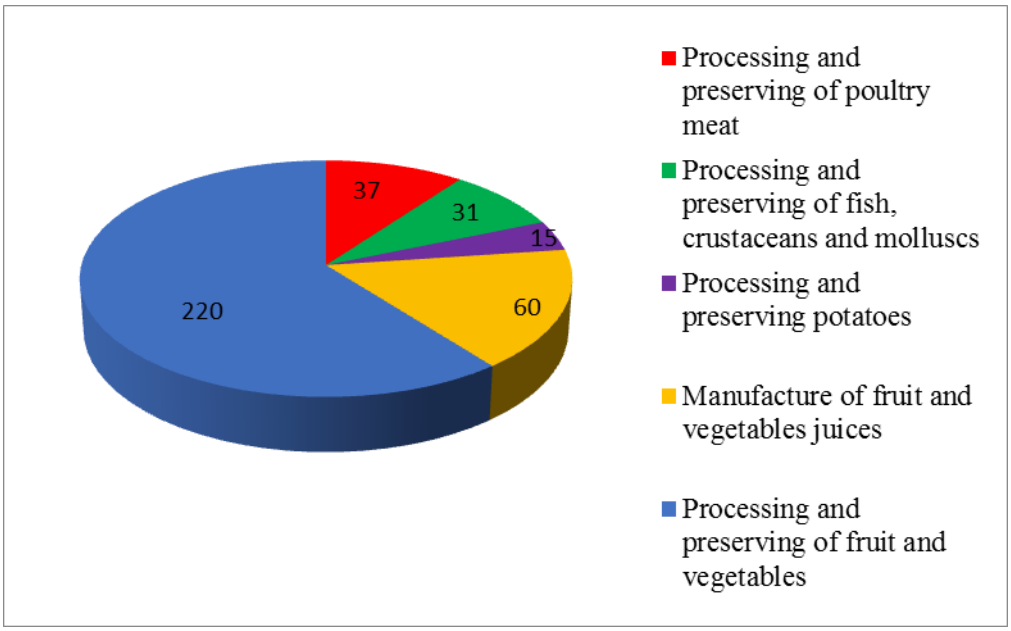

Figure 1. Structure of the processing and preserving sector of vegetables, fruits and white meat from Romania in 2015

Source: Author's processing

The analysis of sales and development of employees in the sector was conducted using data from Table 2.

Table 2. Evolution of sales and employees in industry

Elements	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**Annual average**
Total turnover (mill. Euro)	**543.70**	**625.03**	**580.93**	**637.41**	**746.55**	**792.71**	**815.57**	**879.95**	
Processing and preserving of poultry meat	167.73	203.27	209.97	282.41	312.04	342.31	366.5	366.27	
Processing and preserving of fish, crustaceans and molluscs	78.76	78.24	71.32	77.88	86.3	80.86	85.43	99.62	
Processing and preserving potatoes	43.41	118.72	105.19	67.99	141.25	143.39	155.31	187.52	
Manufacture of fruit and vegetables juices	67.83	59.18	8.70	11.47	15.64	15.03	4.53	5.12	
Processing and preserving of fruit and vegetables	185.96	165.62	185.75	197.67	191.31	211.12	203.80	221.42	
Dynamics of turnover		***14.96%***	***-7.06%***	***9.72%***	***17.12 %***	***6.18%***	***2.88%***	***7.89 %***	***7.39%***
Employee average number	**10,001**	**10,804**	**10,200**	**10,137**	**10,906**	**10,414**	**10,665**	**10,735**	
Processing and preserving of poultry meat	3,524	4,124	4,317	4,988	5,083	5,149	5,100	5,091	
Processing and preserving of fish, crustaceans and molluscs	1,579	1,313	1,221	1,140	961	1,140	1,158	1,348	
Processing and preserving	675	1,566	1,390	576	1423	1,348	1,309	1,358	

potatoes									
Manufacture of fruit and vegetables juices	924	813	121	158	177	169	176	185	
Processing and preserving of fruit and vegetables	3,299	2,988	3,151	3,275	3262	2,608	2,922	2,753	
Growing rate		***8.03%***	***-5.59%***	***-0.62%***	***7.59%***	***-4.51%***	***2.41%***	***0.66 %***	***1.14%***

Sursa: https://www.anaf.ro/indicatori/indfinanciari.html and author's processing

According to the data in Table 2, the volume of sales in the sector increased between 2008 and 2015 from 543.7 million euro in 2008 to 879.95 million euro in 2015, thus recording an average annual growth rate of 7.39%. It is also noted that the most important part of the sales volume is the processing and preserving of poultry meat, followed by the processing and preserving of fruits and vegetables. The average number of employees increased during the analysed period from 10,001 persons in 2008 to 10,735 persons in 2015 (three years of the analysed ones registered a decrease, respectively the year 2010 when the average number of employees decreased by 5.59%, the year 2011 when there was a decrease of 0.62% and the year 2013, when there was a decrease by 4.51% of the average number of employees), thus recording an average growth rate of only 1.14%. And here we can see that the largest share of employees is recorded in the sector of processing and preserving of poultry meat, but also the share of employees in the processing and preserving of fruits and vegetables sector is quite significant, mentioning that it has registered a decrease over the analysed period (from 3,299 employees in 2008 to 2,753 employees in 2015).

Figure 2 shows diagrammatically the evolution of sales in the analysed sector.

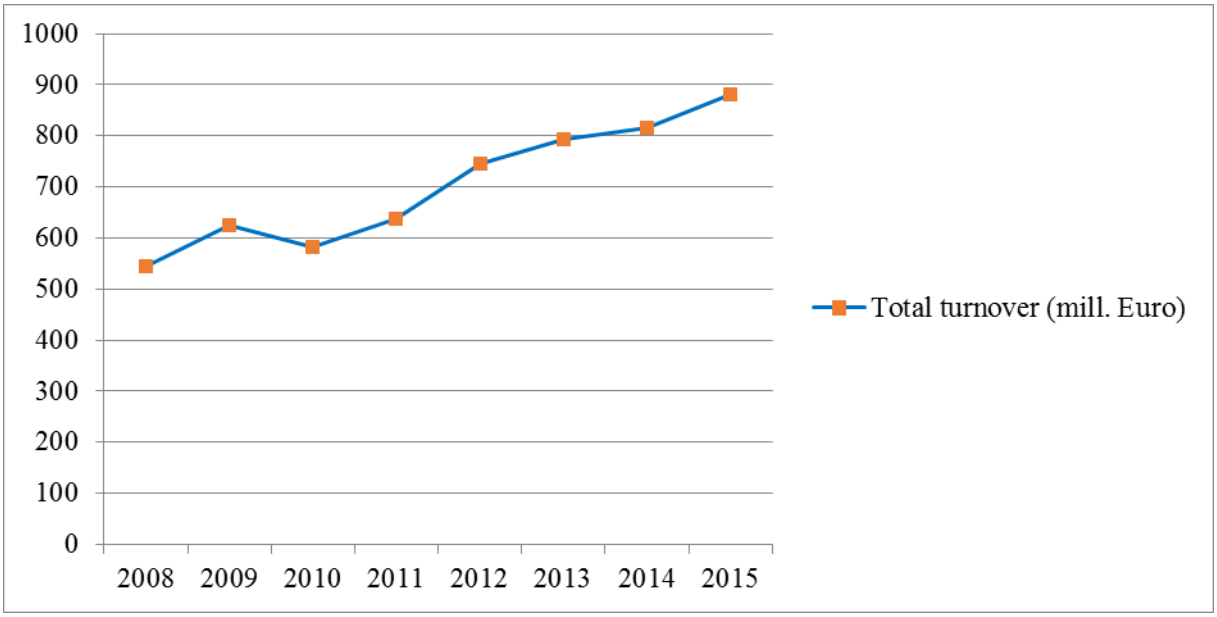

Figure 2. The evolution of total turnover in the sector of healthy food processing and preservation

Source: Author's processing

The evolution of the number of employees per each subsector of the healthy food processing and preserving sector in the analysed period is presented in Figure 3.

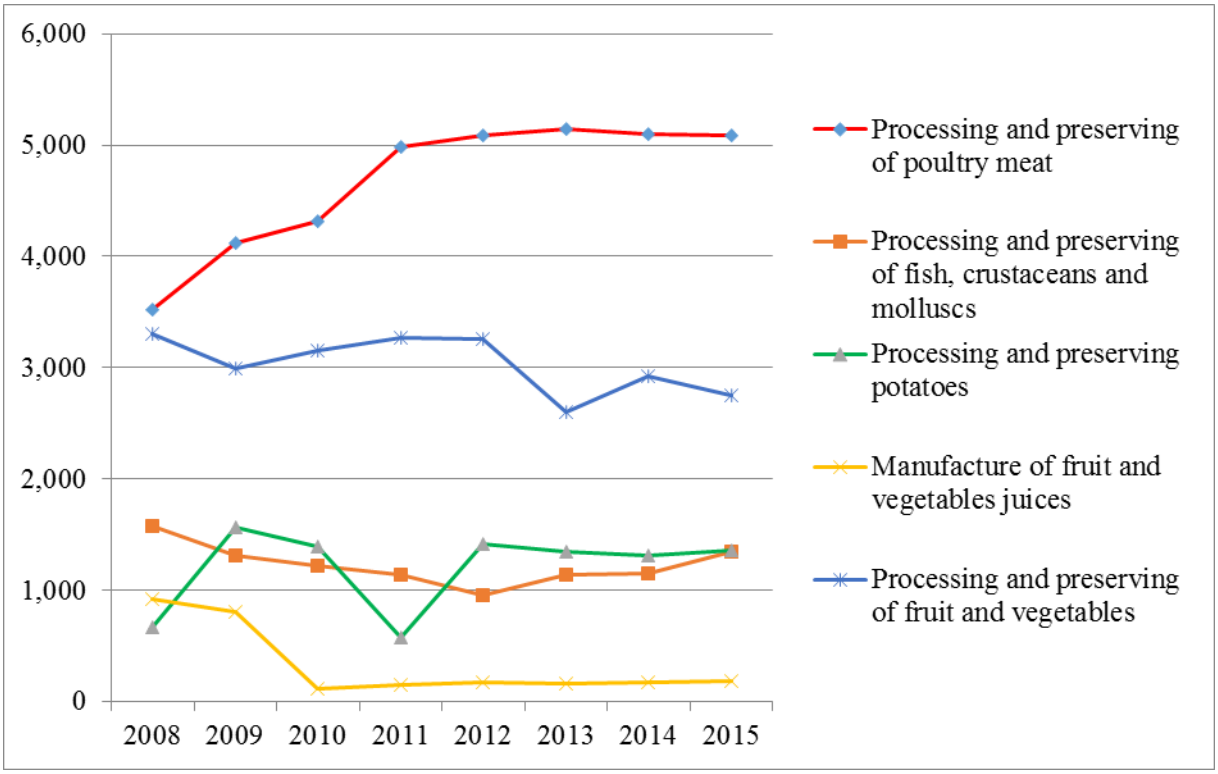

Figure 3. The evolution of the number of employees in the period 2008 - 2015

Source: Author's processing

The industry efficiency analysis was based on the data in Table 3.

Table 5. The evolution of efficiency in industry

Elements	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Turnover/employee (thousand Euro/year)	43.64	49.76	45.74	51.06	58.82	63.61	65.37	70.62
Processing and preserving of poultry meat	47.60	49.29	48.64	56.62	61.39	66.48	71.86	71.95
Processing and preserving of fish, crustaceans and molluscs	49.88	59.59	58.41	68.32	89.81	70.93	73.78	73.91
Processing and preserving potatoes	64.31	75.81	75.67	118.03	99.26	106.38	118.65	138.08
Manufacture of fruit and vegetables juices	73.41	72.79	71.92	72.60	88.38	88.94	25.72	27.67

Processing and preserving of fruit and vegetables	56.37	55.43	58.95	60.36	58.65	80.95	69.75	80.43
Dynamic sales/employee		14.02%	-8.08%	11.63%	15.20%	8.14%	2.77%	8.03%

Source: Author's processing

According to the data in Table 3, except for 2010, there is a clear evolution of the sales per employee in the analysed interval, from 43.64 thousand Euro/year in 2008 to 70.62 thousand Euro/year in 2015. If we analyse the evolution of efficiency in each subsector, it is noticed that the values are higher than those recorded at the sector level. By subduing the analysis, it is noted that only the processing and preserving subsector of poultry meat has the same evolution as the analysed sector, the others having different evolutions. This is also evident in Figure 4.

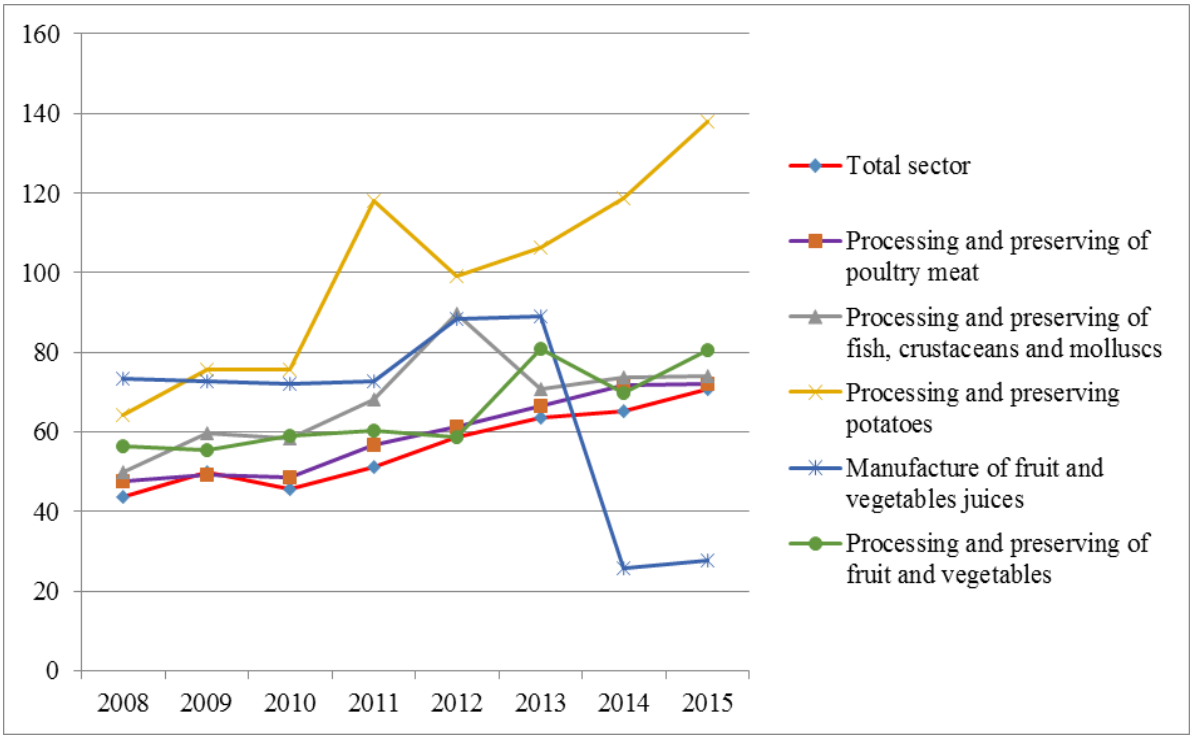

Figure 4. The evolution of turnover/employee by sector and by subsectors analysed during the period 2008-2015

Source: Author's processing

5. Conclusions

Concerns about healthy and balanced nutrition imply the consumption of various foods, from which fruits and vegetables should not be lacking, but not meat, especially white meat. The seasonality and the fact that these foods are perishable presupposes their processing and preservation.

The processing and preserving industry of fruit, vegetables and white meat is a very important component of the food industry, which facilitates their consumption over a longer period of time, with the help of increasingly efficient processing and preservation technologies, which allow keeping as good as possible their nutritional characteristics. This activity has to a large extent the characteristics

of a slightly growing sector in Romania. Although the number of companies active in the processing and preserving of fruits and vegetables is the highest in the analysed period, however, the biggest turnover, with the exception of 2008, is recorded in the processing and preserving of poultry meat.

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