

ORGANIZATIONAL AND ECONOMIC CHARACTERISTICS OF PRODUCTION AND MEAT PROCESSING COMPANY

Dragić Živković¹, Zoran Rajić², Sreten Jelić³, Mersida Jandrić⁴

Summary

This paper presents the organizational-economic features of production and processing of meat in one of the leading companies in manufacturing and processing of meat in Serbia. Merge the relations that are related to organizational –economic, technical and technological segment.

Key words: *organization and economics of meat production, production conditions and results.*

JEL: *Q13*

Introduction

The production of meat in Serbia is approximately 450,000 tons, and the number of registered slaughterhouses varies between 900 and 1000. Production has stabilized in recent years, although the capacities of slaughter facilities due to technical obsolescence and inability to fulfill the standards are unused. A few years ago there were 1100 slaughterhouses which employed 25,000 employees in Serbia (Tomić *et al*, 2007). Reducing meat production in recent decades is the consequence of reducing the number of livestock and poultry, but even more of the trading volume. The presence of Serbia in the international meat market is symbolic and amounts 0.17% (Đorović *et al*, 2010). The company's main activity is manufacturing and processing of meat from a wholesaler from which coordinates the work of six regional offices. Founded as a small artisanal meat processing plant today is one of the most advanced and most modern slaughterhouses in Serbia and the Balkan. The company is fully implemented HACCP system. Policy of quality is based on the principles of respect for customer requirements, compliance with

- 1 Full Professor, University of Belgrade, Faculty of Agriculture, Nemanjina 6, 11080 Belgrade-Zemun, Phone: +381 11 216 53 15/ext 425, E-mail: dzivkovic@agrif.bg.ac.rs
- 2 Associate Professor, University of Belgrade, Faculty of Agriculture, Nemanjina 6, 11080 Belgrade-Zemun, Phone: + 381 11 216 53 15/ext 414, E-mail: zorajic@agrif.bg.ac.rs
- 3 Associate Professor, University of Belgrade, Faculty of Agriculture, Nemanjina 6, 11080 Belgrade-Zemun, Phone: +381 11 216 53 15/ ext 421, E-mail: sjelic@agrif.bg.ac.rs
- 4 Doctoral student, University of Belgrade, Faculty of Agriculture, Nemanjina 6, 11080 Belgrade-Zemun, E-mail: mersida.jandric@hotmail.com

laws, regulations and standards of products and services, improve partnership relations, the application of modern technologies to improve working process, and development of new products as well as increase productivity and profitability, raising the level of knowledge and the establishment, maintenance and continual improvement of quality management system. The processing capacity is 60 tons per day, and every day throughout Serbia is exported 30 tons of meat products. From the beginning until today, the company is privately owned. Production program includes 180 products (durables and semi). Product placement is done through its own 22 stores and six distribution centers all over Serbia (Bačinci, Belgrade, Kragujevac, Nis, Požarevac, Užice, and are opened a representative offices in Montenegro, Serbian Republic and the Republic of Macedonia).

Materials and working methods

The subject of study is the operations of the company, by concentrating on organizational and economic conditions, organizational structures, the most important trade goods, total income, value of production, labor costs, financial results, economic principles of business, level of mutual integration of organizational units and economic aspects of production. Shown relations refer to the organizationally-economic, technical and technological segment in order to encourage positive developments. In the research are applied standard methodological procedures (indices, comparisons, tabulation, calculating methods), methods of analysis and balance calculated indicators of business success. For the preparation of paper are used business reports of the company for the past two years, internal and internet company presentation, rules of quality management, consultation with relevant managers and appropriate literature sources.

Research results with discussion

Manufacturing and meat processing plants company started in 1993 year and is located in Srem. Its path of development is constantly preceded upwards. Year 2003 was critical in the development and market success of the company. Then were started new capacities, and with the purchase of the latest technology, the process of obtaining more durable goods was at the highest level. Business risks are thereby completely excluded. In that year was produced a total of 1.287 million kg of pork and beef and 2.998 million kg of processing meat. In the years when economic activity was taking place in difficult conditions (loss of markets, war, destroyed the monetary system, hyperinflation, etc.), the company was able to maintain a leadership position in the market. The company has, due to increased demand and market expansion, increased investments in equipment and infrastructure. Currently has in its possession 5993 m² under buildings, 1372 m² of vacant buildable land and 14,588 m² of agricultural land. Vehicle fleet consists of four freight cars "Mercedes", 9 passenger vehicles and 10 commercial vehicles. Reliability of the production process is based on strict implementation of HACCP system. Its implementation has led to the construction of so-called. "Logistics warehouse" with a capacity of 30,000 kg. Meat and meat products production is characterized by a multi-stage production process. Primary goals of production function are providing appropriate product quality, eliminating

the bottlenecks and optimization of production process (*Mladenović et al, 1997*) .Total production for products or groups is shown in Table 1.

Table 1. Meat and meat products production (in kg)

Production	Year (kg)	
	I	II
Fresh meat	1.648.000	1.805.000
Meat products	5.599.000	5.900.000
TOTAL	7.247.000	7.705.000

Source: internal documentation

In total meat production, fresh meat participated with 23.43% and meat products with 76.43% (*Munćan et al, 2004*). Realization of fresh meat and meat products in domestic and international market is shown in Table 2.

Table 2. Fresh meat realization

Realization	Accomplished (kg)		Structure (%)	
	I	II	I	II
Fresh meat				
Domestic market	1.556.910	1.754.001	100.00	98.11
Foreign market	0,00	33.782,45	-	1.89
Total realization	1.556.910	1.787.784	100.00	100.00
Meat products				
Domestic market	4.699.869,69	4.938.668	93.88	85,09
Foreign market	306.443	865.091	6.12	14.91
Total realization	5.006.312	5.803.759	100.00	100.00

Source: internal documentation

Total sales of fresh meat in second year compared to the previous, increased for 15%, although realization of fresh meat in domestic market decreased by 1.89%. Total realization of processed meat products category increased by 16%, and realization of domestic market decreased by 8.79%, while the implementation of the international market increased from 6.12% in the first to 14.91% in the second year. In total sales fresh meat attended by 23% and meat products with 77% (data relating to the second year). The company besides owning its own retail network also finds its way to customers through a system of wholesale and retail of various market chains. The structure of total income as the sum of the commercial, financial and other income is shown in Table 3.

Table 3. The structure of total income (RSD)

Income	Accomplished		Structure (%)	
	I	II	I	II
1. Business income	1.475.796	1.533.873	97.02	97.29
2. Financial income	1.326	35.885	0.09	2.28
3. Other income	43.952	6.795	2.89	0.43
Total income (1+2+3)	1.521.074	1.576.553	100.00	100.00

Source: internal documentation

The largest percentage of revenues consist of revenues from regular operations, or in the structure of total revenue, operating income in both years are over 97%. Most of the commercial revenues were generated through sales of finished products. Revenue from sales in both years, nearly 99%. Other income has little involvement in operating income. In the structure of total expenditures largest percentages (95.72%) occupy operating expenses (Table 4).

Table 4. Structure of total expenditure (RSD)

Expenditure	Accomplished		Structure (%)	
	I	II	I	II
1. Business expenditure	1.438.918	1.482.215	94.99	95.72
2. Financial expenditure	67.526	59.647	4.46	3.85
3. Other expenditure	8.340	6.596	0.55	0.43
Total expenditure (1+2+3)	1.514.784	1.548.458	100.00	100.00

Source: internal documentation

The highest percentage in the structure of direct costs occupying the cost of materials (74.32%), followed by wage workers whose number is reduced from 14.07% to 10.61%. Depreciation costs do not exceed 2% and of energy costs 9%.

Table 5. Structure of direct costs

Elements	Amount in 000 dinars		Structure (%)	
	I	II	I	II
Material	979.876	1.101.596	68.10	74.32
Fluid and Energy	102.775	126.922	7.14	8.56
Workers wage	202.385	157.276	14.07	10.61
Costs of sold goods	125.857	68.862	8.75	4.65
Depreciation costs	28.025	27.559	1.95	1.86
Total	1.438.918	1.482.215	100.00	100.00

Source: internal documentation

Review of the financial results based on income statement, where according to the Accounting and Auditing Law, and its amendment, the income and expenses of operations are segmented on business income and expenses, financial income and expenses and other income and expenses (Rodić et al, 2003). The aim of reviewing the financial result is the assessment of financial result as a difference of two opposite flow of income and expenses. As task

analysis are given: Analysis of the structure of financial results; Analysis of risk factors in the achievement of financial results and threshold profitability. Such a breakdown of financial results provide information from which income group encourages financial results, as can be seen from Table 6 Total gross financial result was positive in both observed, but in the first year due to very high financial results from other income, while in the second year, was improvement in operating result. The financial performance analysis shows the speed of change in financial results and lower profitability evaluation points. In this analysis does not fit the other income and expense because they are temporary and part-time and as such cannot be the basis for achieving long-term financial results. This analysis includes operating income and expenses, financial income and expenses, and financial results from operations. The problem with this analysis comes in the parsing of operating expenses on a fixed and variable component.

Table 6. Analysis of Financial Results

Position	Amount in 000 dinars		Structure (%)	
	I	II	I	II
Business income	1.475.796	1.533.873	97.02	97.29
Financial income	1.326	35.885	0.09	2.28
Other income	43.952	6.795	2.89	0.43
Total income	1.521.074	1.576.553	100.00	100.00
Business expense	1.438.918	1.482.215	94.99	95.72
Financial expense	67.526	59.647	4.46	3.85
Other expense	8.340	6.596	0.55	0.43
Total expense	1.514.784	1.548.458	100.00	100.00
Financial result from business income	36.878	51.658		
Financial result from financing	-66.200	-23.762		
Financial result from other income	35.612	199		
Financial result from regular operating	-29322	27896		
Total gross financial result	6.290	28.095		

Source: calculation by authors

Factor of the total risk in the first year is very high with a minus sign for negative gross financial result or occur as a result of higher financial risk in that year. The percentage utilization of operating revenue for the realization of a neutral financial result amounts 87.24% in the first year, while the second was reduced to 4.43%. Although in both years, operating income percentage of utilization is very high it is good that follow the positive trend of decline, because as this indicator is more away from 100% achieving a risk of neutral financial result is lower. The elasticity rate of achieving a neutral operating results rose from 12.76% in first to 17.19% in the second year, which is also a positive trend, as the higher this rate, the less likely that the company will have negative operating result.

Table 7. Risk analysis of achieving the financial results and lower break-even point of profitability

Description	Amount in 000 dinars	
	I	II
Business income	1.475.796	1.533.873
Variable expenses	1.186.687	1.233.368,4
Margin coverage (1-2)	289.109	300.504,6
Fixed and mostly fixed expenses	252.231	248.846,6
Net financing expenses	66.200	23.762
Business result (3-4)	36.878	51.658
Gross financial result from operations (6-5)	-29.322	27.896
Total business risk factor (3/6)	7,83	5.82
Total financial risk factor (6/7)		1.85
Overall risk factor (8*9)		10.77
Percentage of cover margins in business income cover	19.59	19.59
Required business income for achievement of neutral business result	1.287.549,77	1.270.273,61
Required business income for neutral gross financial result	1.625.477.28	1.391.570,19
% of business income utilization for realization of neutral business result	87.24	82.81
The elasticity rate of achieving a neutral business results	12.76	17.19
% of business income utilization for realization of neutral gross financial result	110.14	90.72
The elasticity rate of achieving a neutral gross financial result	-10.14	9.28

Source: calculation by authors

Economic principles of operation are expressed through the following principles: 1) Labor productivity; 2) Production economy; 3) Business profitability.

Labor productivity is an effort to accomplish a certain production with minimal expenditure of labor, but at the same time the quality of the product remains satisfactory.

Table 8. Indicators of business success

Productivity indicators	Year	
	I	II
Productivity		
Gross profit/ Average number of employees	17.14	65.95
Net income/ Average number of employees	15.42	55.04
Economical		
Total income*100/total expenditure	1.004	1.018
Profitability		
Total income / Total engaged funds	2.46	1.98
Total engaged funds / Total income	0.40	0.50
Net income *100 / Total engaged funds	0.91	2.94

Source: calculation by authors

Labor productivity, regardless of the manner of calculation, was maximum increased by decreasing the number of employees, and only afterwards thanks to better business results.

Production efficiency shows a level of efficiency changes in the value creation process. It the level of useful effect of expenditure production factors in the manufacturing process. Slaughterhouse was operating on the border of efficiency, but better situation in second year of observation was a consequence of favorable operating result and significant increase in financial income.

Profitability is an indicator that shows the level of business enterprise cost effectiveness, as the ratio profit towards assets employed is greater profitability is higher and vice versa. Indicators of profitability from the point of slaughterhouse are good for with certain commitments were achieved better business results (index 125 and 323). The third indicator, otherwise surprisingly high, is a consequence of the very small net profit in the first year.

Conclusion

By its size this company is in a group of middle companies and operates in intensely competitive environment. The number of employees and the level of their qualification structure meet the needs of production and business processes of the company. Its production facilities are on satisfactory level, but the production volume in both groups had a trend of growth. The company operates in accordance with the requirements of the Law on Environmental Protection, and in accordance with quality systems ISO 9001:2000 and HACCP. The financial result for both years was positive, but in the second year increased by 46.66% compared to the previous year. Positive total gross financial result in the first year was a financial result due from other income, and in the second year from regular operating. Recommended measures of business policies are focused on increasing investment in marketing, approaching new products to customers, increasing the volume of production, the introduction of new standards and striving towards maximum rationalizing costs.

References

1. Tomić, R., Živković, D., Andrić, B. (2007): *Organizaciono ekonomska obeležja poslovanja klanice*, Agricultural economics, IEP, LIV, no. 2, pg. 197-214, Belgrade.
2. Đorović, M., Stevanović, S., Lazić, V. (2010): *Srbija na međunarodnom tržištu mesa*, Agricultural economics, IEP, LVII, no. 1, pg. 91-110, Belgrade.
3. Mladenović, N., Nikolić, M. (1997): *Ekonomika preduzeća*, Faculty of Economics, University of Belgrade, Belgrade.
4. Munćan, P., Živković, D. (2004): *Menadžment rada i proizvodnje u poljoprivredi*, Faculty of Agriculture, University of Belgrade, Belgrade.
5. Rodić, J., Vukelić, G. (2003): *Teorija i analiza bilansa*, Faculty of Agriculture, University of Belgrade, Belgrade.

ORGANIZACIONO-EKONOMSKA OBELEŽJA KOMPANIJE ZA PROIZVODNJU I PRERADU MESA

Dragić Živković⁵, Zoran Rajić⁶, Sreten Jelić⁷, Mersida Jandrić⁸

Rezime

Suštinu ovog rada čine tumačenja organizovanja otrganizaciono-ekonomskih obeležja proizvodnje i prerade mesa u vodećoj kompaniji za proizvodnju i preradu mesa u Srbiji. Objedinjene su relacije koje se odnose na organizaciono-ekonomski i tehničko-tehnološki segment poslovanja.

Ključne reči: *organizacija i ekonomika proizvodnje mesa, uslovi i rezultati proizvodnje.*

-
- 5 Redovni profesor, Univerzitet u Beogradu, Poljoprivredni fakultet, Nemanjina 6, 11080 Beograd-Zemun, Telefon: + 381 11 261 53 15/ lok. 425, E-mail: dzivkovic@agrif.bg.ac.rs
 - 6 Vanredni profesor, Univerzitet u Beogradu, Poljoprivredni fakultet, Nemanjina 6, 11080 Beograd-Zemun, Telefon: +381 11 261 53 15/ lok. 414, E-mail: zorajic@agrif.bg.ac.rs
 - 7 Vanredni profesor, Univerzitet u Beogradu, Poljoprivredni fakultet, Nemanjina 6, 11080 Beograd-Zemun, Telefon: +381 11 261 53 15/ lok. 421, E-mail: sjelic@agrif.bg.ac.rs
 - 8 Student doktorskih studija, Univerzitet u Beogradu, Poljoprivredni fakultet, Nemanjina 6, 11080 Beograd-Zemun, E-mail: mersida.jandric@hotmail.com

CONTENT

1. Gajić Boško, Tomić Zorica, Sredojević Zorica
**A SIMPLE METHOD ESTIMATES AND ECONOMIC INDICATORS
OF PHOTOVOLTAIC SYSTEMS FOR DRIP IRRIGATION 223**
2. Milojević Ivan, Vukoje Aleksandra, Mihajlović Milan
**ACCOUNTING CONSOLIDATION OF THE BALANCE BY
THE ACQUISITION METHOD 237**
3. Pejanović Radovan, Glavaš-Trbić Danica, Tomaš-Simin Mirela
**ABOUT THE CAUSES OF AGRICULTURE CRISIS IN
THE REPUBLIC OF SERBIA 253**
4. Vukoje Veljko, Psodorov Đorđe, Živković Jasmina
**PROFITABILITY OF PRODUCTION OF PASTA
FROM SPELT FLOUR 265**
5. Borec Andreja, Prišenk Jernej
**MODELS OF PARTNERSHIPS AND ORGANISATIONAL FORMS IN
SHORT FOOD SUPPLY CHAINS IN THE SLOVENIAN MOUNTAINS . 277**
6. Ene Corina
THE RELEVANCE OF TRACEABILITY IN THE FOOD CHAIN 287
7. Erokhin Vasily, Ivolga Anna
**NEW DEVELOPMENTS IN RUSSIA-EU TRADE
WITH AGRICULTURAL GOODS:
INFLUENCES OF TRADE INTEGRATION 299**
8. Grujić Biljana, Roljević Svetlana, Kljajić Nataša
**CATEGORIZATION OF POVERTY IN
THE REPUBLIC OF SERBIA IN THE PERIOD 2006-2010 309**

9.	Jovanić Tatjana AGRI-ENVIRONMENTAL LEGISLATIVE FRAMEWORK IN SERBIA IN LIGHT OF THE HARMONISATION WITH EU LAW . . .	321
10.	Looijen Arnold, Heijman Wim EUROPEAN AGRICULTURAL CLUSTERS: HOW CAN EUROPEAN AGRICULTURAL CLUSTERS BE MEASURED AND IDENTIFIED? . . .	337
11.	Majstorović Aleksandar, Dukić Dragan, Zogović Mihajlo AN AGRICULTURAL LAND VALUE ASSESSMENT MODEL.	355
12.	Papić Brankov Tatjana, Tanjević Nataša CORRUPTION IN THE LAND SECTOR	365
13.	Pejović Igor, Jovanović Vladimir NEW FISCAL ROLE OF THE GOVERNMENT IN THE TRANSITION OF THE AGRICULTURE IN SERBIA	379
14.	Sudarević Tomislav, Vlahović Branislav, Šurjanović Ivan THE ATTITUDES TOWARD APPLICATION OF VIRAL MARKETING IN THE FOOD INDUSTRY IN SERBIA	389
15.	Tešić Aleksandra, Ilić Dragan, Tepavac Rajko SOURCES OF INVESTMENT FINANCING AND THEIR IMPACT ON ECONOMIC GROWTH OF THE REPUBLIC OF SERBIA	403
16.	Živković Dragić, Rajić Zoran, Jelić Sreten, Jandrić Mersida ORGANIZATIONAL AND ECONOMIC CHARACTERISTICS OF PRODUCTION AND MEAT PROCESSING COMPANY	419
17.	List of reviewers in 2012	427