e-mail: journal.ees@usch.md

MANAGEMENT OF BUSINESS PROCESSES OF ENTERPRISES ON THE EXAMPLE OF "ROSINKA" LLC

TUR OLESIA,

PhD in economics, Associate Professor, National University of Food Technologies, Kyiv, Ukraine e-mail: tur.l@meta.ua

MATUSEVICH ANASTASIA,

Phd student, National University of Food Technologies, Kyiv, Ukraine e-mail: nastiamatusevich01@gmail.com

Abstract: The trends in the market of soft drinks, mineral and other waters in Ukraine were analyzed, in particular: the part of mineral water, sweet sparkling drinks, kvass and other drinks in the segment of soft drinks market was identified; leaders of sales in the soft drinks market in the segment of "mineral water" were identified (IDS Group Ukraine and Coca-Cola HBS), and the largest producers of soft drinks in the segment of "soft drinks" were identified (Coca-Cola, PepsiCo, Obolon, Akvaplast, Panda, Erlan). The business processes of "Kiev factory of soft drinks "ROSINKA" LLC were analyzed. It was established, that the company is built in compliance with the functional approach of business process modeling, in particular each unit has its own functions and is responsible for the implementation of specific business processes: production, marketing, sales of finished products. The model of business system was developed on this ground. And this model complies with the requirements of State Standard of Ukraine ISO 9001:2015 and covers more than 90% of the company activity, in particular: raw materials supply, production, storage, sale and quality control at every stage. The main stages of evaluation of the management of business processes at the enterprises were analyzed. As a result, there is a possibility to identify a key business process at the studied beverages enterprise at the initial stage and to present a model of this process. It consists in the transformation of incoming resources (raw materials) into outcoming resources (finished drinks) with help of a special mechanism, which includes labor, energy resources, fixed assets, software, including compliance with the internal regulatory and administrative documentation. At the next stage of the analysis of the efficiency of management of business processes at "ROSINKA" LLC the system of indicators was created and analyzed, in particular, costs of business processes (fixed assets, labor and *material resources*).

Keywords: soft drinks, mineral water, soft drinks market, business process management, business process modelling, efficiency, process approach, business system.

JEL Classification: M11, M30, L60 UDC: 334.722: 665.6(477)

Introduction

In the context of instability of external environment, unfavorable market conditions and tough competition among the enterprises of the food industry it is necessary to develop new tools and innovative management practices to reduce costs, increase efficiency and get and maintain leadership in its market sector. As a result, the food enterprises have to respond to the dynamics of economic change in form of application of process approach for management, at the same time each structural unit of an organization provides implementing of specific business processes in which it participates, and the efficiency of the activity is increasing in general, and the set goals of a business unit are reached. At the same time the basic preconditions for an effective management of business processes and their improvement is the application of synthesis management concepts and techniques, and preventative minimization of negative influence factors of internal and external environment. It is a powerful tool

e-mail: journal.ees@usch.md

for strengthening of the competitive positions of food enterprises, resulted in increasing of economic benefits and market share.

Analysis of recent researches and publications

Management issues and improvement of business processes are researched by many foreign scientists, among them F. Ullah [1], M. Hammer, J. Champi [2] J. Harrington [3], E. Deming [4] and domestic scientists: L. D. Druchenko, [5], O. A. Klepikova [6].,I. O. Kovshova [7], O. M. Kostina [8], O. A. Lysenko [9], S.V. Minuhin [10], T. S. Morschenok [11], O. O. Tarasova [12] and others. At the same time, analysis of recent publications proves, that the various aspects of the management of business processes remain still insuficiently discussed, such as: identifying of the most effective methods of improvement of business processes, terms of the use and development of business processes. It means, that there is a necessaty of further developments in this field and adaptation of international experience to domestic conditions.

The objective of the article is the development of theoretical principles and practical recommendations on management of business processes taking into account the modern trends and conditions of development of enterprises in the food industry by the example of "ROSINKA" LLC.

Research results

The economic crises 2008-2009 and 2015 have had a significant impact on the price level, exchange rates, solvency of consumers. Production volumes decreased in 2007-2015, the financial situation of many enterprises deteriorated significantly. However, there are positive trends in recent years. The soft drinks market in Ukraine is developing rapidly. The active modernization of material and technical basis and improvement of the technology of production at enterprises ensured a significant expansion and enrichment of the product range, improving its compliance with the requirements of European standards.

According to the State Statistics Committee of Ukraine, these types of products were sold for 9793.1 million UAH in 2015, and for 13183.6 million UAH in 2017 (table 1).

Indicators	Period		Absolute deviation		2017 to 2015,%	
Sales volumes, million.UAH	9793.1	11010.8	13183.6	1217.7	2172.8	134.6
Production volume, million. dal	110	118	140	80	22	127.2

 Table 1. Production of soft drinks, mineral and other waters in Ukraine, 2015-2017.

Source: compiled by the author on the basis of [13; 14]

According to the table, it can be concluded that the soft drinks market is expanding. In comparison with the previous year the sales volumes in money terms increased in 2016 and 2017 (in 2016 in comparison with 2015 by 12.43%, and in 2017 in comparison with 2016 by 19,73%). This is one of the few markets in Ukraine with positive dynamics. However, it is necessary to pay attention to the price. The soft drinks were getting more expensive every year. It is typical for all products of food industry. However, the production quantity tends to increase.

The production volume Volumes increased in the period of 2015-2017 (by 7.27% and 18.64% in 2016 in comparison with 2015 and in 2017 in comparison with 2016, respectively).

This phenomenon is related to the fact that the enterprises actively analyze and meet the changing needs of consumers. The needs have changed due to the promotion of healthy lifestyle. The consumers began to pay attention to spring and mineral water, soft drinks with low content of sugar and kvass in bottles.

Every year there is an increase in volumes of sales and production (Fig. 1.).

The Scientific Journal of Cahul State University "Bogdan Petriceicu Hasdeu" Economic and Engineering Studies №. 1 (3), 2018

http://jees.usch.md/

e-mail: journal.ees@usch.md



Fig. 1. The production volume of soft drinks in Ukraine in 2003-2017, million. dal. Source: compiled by the author based on the statistical data [14]

The enterprises operating on the market of soft drinks managed to increase the production volume until 2007 due to: the extensively use of marketing activities that form the culture of soft drink consumption; the reorientation of sales channels of the enterprise; the introduction of modern production technologies, in particular the installation of high-performance equipment, the PET containers are getting popular; the introduction of a new management system, in particular the ISO standards. It resulted in attention to the quality of drinks. The large enterprises began to pay attention to the quality of drinks. As a result the capacity of enterprises and the production volumes have increased.

There was a global financial crisis in 2008. First and foremost, the large market players such as PepsiCo, Coca-Cola, "Rosinka" were affected by the crises, because these companies operate on the domestic and foreign markets of Ukraine. There was a loss of a significant part of markets. These companies also buy partly raw materials abroad, but due to the fluctuations in prices for resources, the finished products have become more expensive. As a result, while the solvency of customers decreased, the prices for soft drinks increased.

The production volumes increased in 2010 due to the stabilization of the situation. But since 2013 it is possible to observe the first signs of a new economic crisis in Ukraine. This has led to similar consequences as after the crisis in 2008.

The situation is stabilizing now. A significant breakthrough took place in 2017. The production of soft drinks has increased significantly due to the stabilization of prices, and their relatively low level. According to Nielsen in Ukraine, the average price of drinks increased by 10.08% per liter in 2017, whereas in 2016 by 31.65% [15]. This gives the opportunity for the producers of soft drinks to expand their own activities and to attract the attention of consumers to their products.

The soft drinks market is represented by a number of types of products. According to the state classification of products and services of the State Standard of Ukraine, soft drinks are [16, p. 71]:

- mineral water sweetened or flavored;
- soft drinks such as lemonade, orangeade;
- fruit soft drinks;
- kvass and others.

The structure of the soft drinks market at the end of 2016 was as follows (Fig. 2.).

The buyers consume mainly mineral water enriched with elements, that are useful for the human body. This is due to the promotion of healthy lifestyle, because of deterioration of ecology and environment. The urbanization is also taking place. A significant number of people move to cities, where people buy clean and safe water in stores, because of the low quality of urban water and outdated infrastructure of water supply. As a result, the demand for purified water has increased.

The leaders of the market of mineral water are the following companies (Fig. 3.).

The Scientific Journal of Cahul State University "Bogdan Petriceicu Hasdeu" Economic and Engineering Studies

№. 1 (3), 2018



e-mail: journal.ees@usch.md



Fig. 2. The structure of the market of non-alcoholic products in Ukraine, 2016. *Source:* [17, p. 181]

The figure shows that the IDS Group is the absolute leader in the domestic market of mineral waters (trade marks like "Morshynska", "Myrgorodska", "Truskavetska", "Aqua nanny", etc.).The company IDS Group Ukraine is also the exclusive importer of Georgian mineral water "Borjomi" in Ukraine [19]. Coca-Cola products are less popular because of the lack of a wide range of goods and weak promotional activities. However, the company maintains the position due to the popularity of the brand.



Fig.3. The leaders of sales in the soft drinks market in the segment of "mineral water", 2017 Source: complied by the author and based on [18]



Sweet sparkling drinks are also popular (Fig.4).

Fig. 4. The largest producers of soft drinks in the segment of sweet sparkling drinks, 2017. Source: complied by the author and based on [18]

The Scientific Journal of Cahul State University "Bogdan Petriceicu Hasdeu"

Economic and Engineering Studies

№. 1 (3), 2018

http://jees.usch.md/ e-mail: journal.ees@usch.me	d
--	---

The main market players are the large international companies Coca-Cola and PepsiCo. They produce half of all products presented in the market of sweet sparkling drinks. According to the data of the figure the Herfindahl-Hirschman index is 0,188. This value is above 0,18 and indicates a high market concentration.

The results of the activity of the largest soft drinks producers according to the results 2016 are as follows (Table 2).

	Table 2. The fatting of the fargest producers of soft drinks, 2013-2010							
		Net income, million, UAH			Net profit, million, UAH.			
№ Producer	Years		Rate of	Years		Rate of		
		2015	2016	growth %	2015	2016	growth %	
1	Coca-Cola Beverages Ukraine Limited	3793	4591	21.04	-127	47	137.01	
2	Morshyn mineral water plant "Oscar" (IDS Group)	662	739	11.63	76	59	-22.37	
3	Malbi Beverage	217	892	311.06	4	10	150.00	
4	Krasilivske, Bershad plant (Obolon)	551	534	-3.09	31	26	-16.13	
5	Myrgorod mineral water plant (Group IDS)	324	343	5.86	32	22	-31.25	
6	Manufacturing company "Panda"	251			2	2	0.00	
7	Aquaplast	233	_		10			
8	"Rosinka"	160	128	-20.00	-163	-266	-63.19	
9	Econia	115			-1	_		
10	Orlan	108			-46			

 Table 2. The rating of the largest producers of soft drinks, 2015-2016

Source: compiled by the author and based on [20; 21]

Coca-Cola Beverages Ukraine limited, IDS Group and Obolon receive the largest income and profit of their activities. The incomes of Malbi Beverage have increased rapidly. The company has a relatively low price and promots actively the distribution of goods in hyper/supermarkets. As a result, the company managed to be close to the customers and managed to gain competitive advantages.

"ROSINKA" LLC sells a small part of the total volume of soft beverages in Ukraine. It is necessary for the plant to strengthen its own position in the soft drinks market and to expand the range of goods. However, the PJSC "ROSINKA" plant is among the ten largest producers of soft drinks in Ukraine.

Due to the wide range of products the largest competitors are able to keep a steady position among the leaders. For example, "Coca-Cola Beverages Ukraine limited", "OBOLON" sell sparkling soft drinks, such as lemonade, tea, juices, mineral water, kvass, etc. There are also companies that produce a wide range of products. For example, "Panda" sells 12 kinds of lemonade and mineral water. There are also enterprises that sell their own products to the consumers of different age. They also sell water of various useful mineral content. "Econia" LCC is one of such enterprises.

The enterprises sell a significant number of product types of different brands, with different ingredients and flavors. A wide range of brands (more than 200) proves the popularity of beverages among consumers, as well as the variability of their needs. The companies have to use an aggressive strategy under such conditions to attract the attention of consumers and to mark out their private goods among the products of competitors.

The main brands of the largest producers of soft drinks are presented in the table 3.

The sales volumes of such brands as "Morshynska", "Myrgorodska", Coca-Cola, Rosinka are increasing. "BonAqua" and "Biola" are losing the position. Such brands as "Coca-Cola", "Morshynska", "Myrgorodska", "Pepsi", "Obolon", "Zhyvchyk", "Borjomi" are the market leaders.

The Scientific Journal of Cahul State University "Bogdan Petriceicu Hasdeu" Economic and Engineering Studies № 1 (3), 2018

http://jees.usch.md/

e-mail: journal.ees@usch.md

Having analyzed the market of soft drinks in Ukraine it is necessary to focus on the study of business processes of the limited liability company "Kyiv factory of soft drinks "ROSINKA" ("ROSINKA" was established on the 16-th of March, 2015) [23, p. 24].

Table 3. The brands of soft drinks producers in Ukraine, 2017

Company	Brand portfolio	
Coca-Cola Beverages Ukraine Limited	Coca-Cola, Fanta, Sprite, Schweppes, BonAqua	
IDS Group	Morshynska, Myrgorodska, Aqua Nanny AquaLife, Borjomi	
Obolon	Zhivchik, Unik, kvass Starokievskaya, Obolon soft drinks,	
0001011	Obolonskaya, Prozora, Akvabalans	
PepsiCo	Pepsi, Mirinda, 7Up, Essentuki, Aqua Minerale Life	
Manufacturing company "Panda"	Caravan soft drinks with different flavors	
Aquaplast	Rankova rosa, FRUITS, Arabella, Aqua Fruits, SUNERGY	
Malbi Beverage	Rankova Chasha, Bon Boisson, Buvette, iFresh	
"Rosinka"	Rosinka, Sophia Kievska, Kvass Ukrainsky	
Econia	Maljatko, TeenTeam, Chystiy Klyuch, Chaykava, Yodo	
Orlan	Biola, Calypso, Two Oceans, Breeze	

Source: compiled by the author and based on [22]

The main activity of the company is 11.07 - the production of soft drinks; the production of mineral waters and other bottled waters (table. 4).

Table 4. The activities "ROSINKA" LLC in accordance to the CTEA-2010

Categories in accordance with the CTEA-2010	Activities
11.07	Production of soft drinks; production of mineral waters and other bottled waters
11.01	Distillation, rectification and blending of alcoholic beverages
11.04	Production of other non-distilled beverages of fermented products
36.00	Intake, purification and supply of water
46.32	Wholesale trade of meat and meat products
46.34	Wholesale trade of beverages

Source: [24]

The company carries out a wide range of activities in order to get additional profits and investments, providing itselves with its own resources.

The plant has achieved a high production capacity (25000000 dal. per year), the company is equipped with the equipment from leading producers of the European Union (KHS, Krones, Klinger, Sipa). More than 38 items of soft drinks, low-alcoholic, juice drinks and mineral water [25].

The plant consists now of different departments, workshops and sections with own functional purpose. They all are involved into the creation of high-quality finished products at the plant (table 5).

Table 5. The General structure of	f "ROSINKA" LLC
-----------------------------------	-----------------

Management	Production units			
Economic and analytical unit, accounting, sales unit, marketing,	Workshops	Sections	Services	
HR, labor protection unit, legal unit, information technology unit, chief engineer, chief mechanic, chief technologist, chief metrologist unit, unit of introduction of new technology, standardization and quality unit	bottling shop 2, bottling shop 3, sirup-	Economic section, mechanical repair section, repair and construction section	logistics service, warehouse service material and technical support, production laboratory	

Source: compiled by the author and based on the data of the enterprise [25]

e-mail: journal.ees@usch.md

The company has created an organizational structure in order to coordinate and fulfill the tasks. This structure ensures an effective management, division of responsibilities and information exchange within the organization (Fig. 5).



Fig. 5. The organizational structure of "ROSINKA"

Source: compiled by the author and based on the data of the enterprise [25]

The organizational structure of the enterprise consists of three levels: the level of Director, the level of line managers and the level of executives. 5-8 workers are subjected to each line manager, i.e. the norm of controllability is kept at almost proper level. It enables an effective management of employees and business processes.

Business processes of "ROSINKA" represent a set of internal activities of the enterprise, aimed at the manufacturing of products, which satisfy the quality and service needs of consumers.

The enterprise is characterised by functional approach while modeling of business processes. That is why each business unit has its own function and is responsible for the implementation of specific business processes, i.e. business processes are based on the functional hierarchical structure (table.6).

The name of the unit	Activities	Goal	Tasks to be solved
1	2	3	4
Accounting	Bookkeeping	ensuring of proper accounting and financial reporting	bookkeeping and financial reporting, audit, financial transactions, in particular related to the sale of products, Treasury transactions and payment of wages to employees
Sales department	Distribution	expansion of the sales market, the formation of mutually beneficial relationships with main customers	promotion and sale of goods to the client, analysis of their needs
Marketing department	Comprehensive market research	identification of new markets, strengthening of the company position at the market	marketing research, design of product, advertising, development of marketing strategy

 Table 6. Functions of structural units while implementing of business processes

The Scientific Journal of Cahul State University "Bogdan Petriceicu Hasdeu" Economic and Engineering Studies

№. 1 (3), 2018

http://jees.usch.md/

e-mail: journal.ees@usch.md

1	2	3	4
Economic- analytical department	Economic security management	financial and economic security of the enterprise	economic, financial analysis, determination of goals and plans for economic development and economic activities
Labor protection	Labor protection of employees	ensuring of necessary conditions for work	conducting of briefings, preventive measures, control of the safety of working conditions and providing with the necessary tools
Personnel Department	Personnel management	provision with personnel	search for personnel with necessary qualifications at the right time and in the required quantity, development of the HR policy
Legal Department	Legal regulation	The legitimate activities of the enterprise	legal advice, control of compliance with the standards and laws established by the state
Department of information technology	Information	Document management and information exchange, information security	Debugging of software, hardware, consultation on the use of software, information security
Chief engineer Department	Resource support	Provision of energy resources	Power supply of production, control of the cost of resources
Chief mechanic department	Production activities	Uninterrupted operation of production equipment	Control of equipment operation, provision of maintenance and repair of equipment, training of employees
Chief engineer department	Production activities	Application of modern and effective production technologies	Control of technological operations, application of new technologies, training of employees
Chief metrologist department	Control of production activity	Production efficiency and precise fulfilment of plans	Metrological support of development and production, minimization of costs due to the accurate measurements
Department of application of new equipment and technologies	Innovations	Application of new resource-saving equipment and technologies	Search, research and application of new equipment and technologies, training of employees
Department of standardization and quality	Quality management	Compliance with the standards and the improvement of quality indicators	Informing about changes of standards, quality control and compliance with the standards

Source: compiled by the author and based on the data of the enterprise [25]

The main business processes of "ROSINKA" LLC include production, marketing, sales of finished products. The structure of the company complies with the functional approach of modeling of business processes. It means that each business unit has its own function and is responsible for the implementation of specific business processes. The model of the business system meets the requirements of State Standard of Ukraine "ISO 9001:2015" and covers more than 90% of activity of the enterprise: providing with raw materials, manufacture, storage, distribution and quality control at every stage, and therefore the principles of total quality management are actively applied (TQM).

In accordance with the State Standard of Ukraine 2974-95 [26, p. 11] the production process is systematic and purposeful change in time and space of quantitative and qualitative characteristics of the means of production and labor in order to produce finished products from raw materials in accordance with a predetermined program. The production process includes [14, p. 44]: main, auxiliary, service. These processes are the components of the business system of "ROSINKA" LLC (Fig.6).

e-mail: journal.ees@usch.md



Fig. 6. A simplified model of business systems of "ROSINKA" LLC (built with help of BPMN notation) Source: compiled by the author and based on the researches **№**. 1 (3), 2018

http://jees.usch.md/	e-mail: journal.ees@usch.md
----------------------	-----------------------------

At first it is necessary to create and plan a production process at the enterprise for the future implementation. Economics and analytical department of "ROSINKA" LLC creates and plans production processes and production program. The program is based on the results of marketing studies, reports of orders of products by consumers. Departments use it while planning their own activities.

The next step of the technological process is the announcement of the necessity to provide with resources (high-quality raw materials, employees, energy resources, basic means). After the production process the final stage is the shipment of products to the warehouse. At first it is necessary to check the quality of beverages.

There are so-called gateways in the business system model. The quality control is carried out after the completion of business processes, such as raw material supply and production of drinks. It is possible to use the gateway in order to divide a process flow into several alternative flows. If raw materials or products do not comply with the standards, the appropriate measures are taken to solve these problems.

BPMN processes are divided into tasks (basic processes) and sub-processes (event-based). There is an event-based sub-process at the enterprise, which is called "accounting". The essence of this process lies in the fact, that this process involves a number of business processes, that arise while fuffilling the tasks. This process is carried out in order to guarantee the necessary accounting and financial documents.

Analysis and evaluation of the effectiveness of the management of business processes is divided into several stages (Fig. 7).



Fig. 7. The stages of evaluation of the management of business processes of the enterprise *Source: compiled by the author and based on [8, p. 294]*

№. 1 (3), 2018

http://jees.usch.md/

e-mail: journal.ees@usch.md

At the initial stage it is necessary to identify the business processes required for the evaluation. As "ROSINKA" LLC specializes in the production of soft drinks, the main production business processes an the enterprise is manufacture of beverages. The model of this process is as follows (Fig. 8).



Fig. 8. The model of main production business process at "ROSINKA" LLC (IDEF0 notation) Source: compiled by the author

The production process at "ROSINKA" LLC consists in the transformation of incoming resources (raw materials) into outcoming resources (finished drinks) with help of a special mechanism, which includes labor, energy resources, basic means, software and compliance with the requirements of regulatory and administrative documentation.

The next stage of the analysis of the efficiency of the management of business processes is the formation of the indicators. In order to evaluate the effectiveness of the management of business processes at "ROSINKA" LLC it is necessary to analyze the cost indexes of business processes. The cost indexes are determined by the ratio of resource expenditure and incomes (demand). They include such indicators of the efficiency of use:

- Fixed assets (efficiency of the production mechanism);
- Labor resources (efficiency of the labor activity mechanism while production process);
- Material resources (efficiency of inputs).

While analysing of the efficiency of the management of business processes based on the cost indexes of business processes it is also possible to use such mechanism as ABC-analysis. It is a universal analytical tool for the evaluation of business processes.

In order to analyze business processes with help of ABC method it is necessary to distinguish the processes of business system and analyse the costs of their implementation. A simplified model of the business system (Fig. 7; 8) includes such processes:

- raw materials provision;
- provision of materials;
- operation of the equipment;
- implementation of production processes by the workers;
- use of energy resources.

The costs of implementation of these processes may be analysed by means of calculation, because it represents the end use of the resources (table. 7).

e-mail: journal.ees@usch.md

Table 7. ABC-analysis of production business processes at "ROSINKA" LLC, 2017				
Processes	The costs of implementing of processes in the total cost of production processes,%	Group		
Provision of: raw materials;	40.97	А		
materials	36.96	А		
Production processes are connected with the work of production staff	5.86	В		
The provision of basic means (the equipment)	3.50	С		
Provision of energy resources	1.00	С		
Other processes	11.71	C		
Total	100.00			

Source: compiled by the author and based on the data of the enterprise [25]

A large part of the costs is connected with the material and raw material supply. The consumers pay attention to the taste of the drinks, i.e. the quality of the product and packaging, therefore, these business processes are important, and the costs of their implementation must be rational. The leaders of the enterprises should pay attention to this business process and improve it. Price fluctuations of material costs lead to the risk of lower profit, higher sales prices. As a result, the profit may decrease. Having identified the indicators of the efficiency of costs it is possible to evaluate the ways of improvement of the resource provision of business processes (table 8).

The expense item "Material costs" includes also the costs of fuel and energy. One of the sources of saving of material resources during the implementation of business processes is the reduction of materials consumption of products. Materials consumption shows the amount of material costs per 1 UAH. of income. The data of the table shows, that the use of material resources is quite high. At the same time the materials consumption decreases.

Material return describes the output of production per 1 UAH. of material costs, i.e. the number of products produced from each hryvnia of the consumed material resources. At "ROSINKA" LLC this index is growing (by 3.7% or 0.05 UAH/UAH). It means that the efficiency of material resources is increasing.

Indexes	Years		Deviations	
indexes	2016	2017	absolute, ±	relative, %
Material costs, thousand UAH	7874	55114	47240	599.95
Consumption of materials, UAH./UAH	0.74	0.72	-0.03	-3.57
Material return, UAH/UAH	1.34	1.39	0.05	3.70
The share of material costs in the cost price of production,%	92.55	83.28	-9.27	-10.01
Effectiveness of material costs %	2.49	0.26	-2.22	-89.36

Table 8. The efficiency of the use of material resources at "ROSINKA" LLC, 2016-2017

Source: compiled by the author and based on the data of the enterprise

The company also has to use the labor resources effectively, because employees are very important while implementation and management of business processes.

The most important feature of labor is its productivity, which characterizes the efficiency of use of personnel of the enterprise. The reduction in the number of employees can lead to savings in costs. At the same time the increase allows to expand business system, the number of processes and to receive the additional income (table 9).

"ROSINKA" LLC expands its activities. As a result, the average number of employees has increased. The efficiency of labor resources has increased due to the significant increase in income and profit. As a result, the productivity has increased by 2,5 times.

The Scientific Journal of Cahul State University "Bogdan Petriceicu Hasdeu" Economic and Engineering Studies № 1 (3), 2018

http://jees.usch.md/

e-mail: journal.ees@usch.md

Table 9. The efficiency of human resources at "ROSINKA" LLC, 2016-2017							
Indexes	Units	Years		Deviations			
		2016	2017	absolute, \pm	relative, %		
Net income from sales of products	thousand, UAH	10577	76772	66195	625.84		
Gross profit	thousand, UAH	2069	10595	8526	412.08		
The average number of employees	person	35	97	62	177.14		
Income per 1 employee	UAH./people	59.11	109.23	50.11	84.77		
Labor productivity	UAH./people	302.20	791.46	489.26	161.90		

Source: compiled by the author and based on the data of the enterprise

The organization of production processes and business processes must be carried out so as to maintain the growth of productivity and ensure optimal number of employees. At the same time the employees must be provided with the necessary means to carry out the processes (table. 10).

Table 10, The efficiency of use of fixed assets at KOSINKA LLC, 2010-2017					
Indexes	Years		Deviations		
mdexes	2016	2017	absolute, ±	relative, %	
Net income from sales of products	10577	76772	66195	625.84	
Net financial result: profit, thousand UAH	196	146	-50	-25.51	
The cost of fixed assets, thousand UAH	1756	3206	1449.9	82.56	
The average number of employees, person	35	97	62	177.14	
Capital productivity UAH./UAH.	6.02	23.95	17.92	297.58	
Capital output ratio UAH./UAH.	0.17	0.04	-0.12	-74.85	
Capital - thousand UAH/person	302.20	791.46	489.26	161.90	
The profitability of fixed assets, %	11.16	4.55	-6.61		

Table 10. The efficiency of use of fixed assets at "ROSINKA" LLC, 2016-2017

Source: compiled by the author and based on the data of the enterprise

The rate of capital productivity has increased (from 6.02 UAH/UAH. to 23.95 UAH/UAH). As a result, the capital-output ratio has decreased. The increase in the value of fixed assets at the enterprise leads to the increase in the assets. The efficiency of fixed assets at the enterprise increases, but profitability decreases.

Conclusions

The management of business processes through the light of continuous monitoring, analysis and evaluation will provide effective and adequate reaction to the changes in the external environment and internal conditions of food businesses. As a result, it will be possible to coordinate the interaction between the departments and improve coordinated activities, reduce costs, increase productivity and quality of food and find reserves to improve the efficiency of production activities.

As for the activities of "ROSINKA" LLC in General, the company carries out an effective management of business processes. Providing with raw materials and materials may be the main problematic issue of the business processes at the enterprise. That is why the employees of the enterprise have to pay attention to its optimization. This will enable the company to reduce cost, increase profits and gain competitive advantage.

REFERENCES:

- 1. Deming, W.E. (1982) Quality, productivity, and competitive position. Combridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study, 373 p.
- Robson M, Ullach F. (2003). Reengineering business processes: A practical guide / Trans. with English. L.E. Dolgov. - Moscow: UNITY, 222 p.

The Scientific Journal of Cahul State University "Bogdan Petriceicu Hasdeu"

Economic and Engineering Studies

№. 1 (3), 2018

http://jees.usch.md/	e-mail: journal.ees@usch.md

- 3. Hammer M. (1997) Reengineering corporations: manifesto revolution in business;Trans. With English. / M. Hammer, James Chamry. S. Pb.: IZ in S. Pb. unyv., 337 p.
- 4. Harrington J., Vesselish K.S., Nimvegen H.V. (2002). Optimization of business processes. Documentation, analysis, management, optimization / Trans. with English. SPb .: ABC, 311 p.
- 5. Driuchenko L. D. (2010) " Implementation of tools for modeling and optimizing business processes in the activities of local self-government bodies " Publichne administruvannia: teoriia ta praktyka, Vol. 1 (3), pp. 32-35
- 6. Klepikova O. A. (2014) " Modern technologies for modeling business processes of the enterprise ", Naukovi pratsi Donets'koho natsional'noho tekhnichnoho universytetu, vol.№ 4, pp. 257-263
- 7. Kovshova I. O. (2016) " Optimization of business processes as a way to increasing the efficiency of industrial enterprises ", Ekonomika. Menedzhment. Biznes, vol. № 1, pp. 53-62
- 8. Kostina O. M. (2017) "Diagnostics and management of business processes in the context of enterprise crisis management in the enterprise", Ekonomichnyj naukovo-praktychnyj zhurnal «Ekonomika i suspil'stvo», vol. № 10 pp. 287-297
- 9. Lysenko O. A. (2011) "The main methodological approaches to modeling business processes at the enterprise", Visnyk Skhidnoukrains'koho natsional'noho universytetu im. V. Dalia. Luhans'k, Vol. № 13 (167), pp. 314-319.
- 10. Minuhin S. V., Ponomarenko V. S., Znahur S.V. (2013) Theory and practice of business process modelling: Monograph. — Kharkiv: KNEU, 244 p.
- 11. Morschenok T. S. (2014) "Theoretical aspects of business process management in the context of implementation of the enterprise development strategy", Biznes Inform, no. 11. pp. 295-302.
- Tarasiuk M. V. (2009) "Market research information systems for controlling automation in the management of trade networks", Visnyk Chernivets'koho torhovel'no-ekonomichnoho instytutu. Ekonomichni nauky, Vol. 4, pp. 266-275.
- 13. Salyga S. Y. (2009) Theoretical aspects of the analysis of investment projects / S. Y. Salyga, O. V. Yarishko, E. Y. Tkachenko // Investments: practice and experience, No. 5. P. 12-14.
- 14. The official website of the State statistics service of Ukraine [Electronic resource] / access mode: http://www.ukrstat.gov.ua/
- 15. The official website of Nielsen [Electronic resource]. Access mode: http://www.nielsen.com
- 16. Tsopa M. B. (2013) Analysis of soft drinks market in Vinnytsia region / M. B. Tsopa // Innovative economy, No. 10. P. 70-75.
- 17. Kvyshko T. (2017) Analysis of soft drinks market in Ukraine/T. Kvyshco // collection of studies of the IV student scientific-practical conference "Commodity and marketing researches of the commodity markets".
 V.: Publishing house of the Vinnytsia torgovelno-economic Institute, p. 180-183.
- 18. The official website of AR-Groupe Nielsen [Electronic resource]. Access mode: https://ar-group.kiev.ua
- 19. The official website of IDS Group Ukraine [Electronic resource]. Access mode: http://ids-service.com.ua
- 20. Information portal Delo.ua [Electronic resource]. Access mode: https://delo.ua
- 21. The official website of the Agency for development of infrastructure of stock market of Ukraine [Electronic resource]. Access mode: https://smida.gov.ua
- 22. Information portal Agronews [Electronic resource] / Top 10 of soft drinks manufacturers // Access mode: http://agronews.ua/node/72198
- 23. Andreychikov O.O. (2013) The use of modern information technologies in the process of development of regulations of arbitrary complexity / O. O. Andreychikov O.O. Gutsa, O. G. Ukrainets//scientific and technical collection "Municiple economy of cities" KNUUE named after O.M. Beketov series "Engineering and Architecture", vol. No. 110. P. 259 265.
- 24. The United State Web portal of open data [electronic resource]. Access mode: http://data.gov.ua
- 25. The official website of "ROSINKA"LLC [Electronic resource]. Access mode: http://www.rosinka.ua
- 26. State Standard 2974-94 Technological preparation of production. Basic terms and definitions. [Electronic resource] / Access mode: http://ksv.do.am/GOST/DSTY_ALL/DSTU1/dstu_2974-95.pdf

Використана література:

- 1. Deming, W.E. (1982). Quality, productivity, and competitive position. Combridge, MA: Massachusetts Institute of Technology, Center for Advanced Engineering Study. 373 p.
- 2. Робсон М, Уллах Ф. Реинжиниринг бизнес-процессов: Практическое руководство / Пер. с англ. Л.Е. Долгова. М.: ЮНИТИ, 2003. 222 с.

The Scientific Journal of Cahul State University "Bogdan Petriceicu Hasdeu"

Economic and Engineering Studies

№. 1 (3), 2018

http://jees.usch.md/ e-mail: jo

e-mail: journal.ees@usch.md

- 3. Хаммер М, Чампи Дж. Реинжиниринг корпорации. Манифест революции в бизнесе. СПб.: Санкт-Петербурский университет, 2005. — 288 с.
- 4. Харрингтон Дж., Всселиш К.С, Нимвеген Х.В. Оптимизация бизнес-процессов. Документирование, анализ, управление, оптимизация / Пер. с англ. — СПб.: Азбука, 2002. — 311 с.
- 5. Driuchenko L. D. (2010), "Implementation of tools for modeling and optimizing business processes in the activities of local self-government bodies" Publichne administruvannia: teoriia ta praktyka, Vol. 1 (3), pp. 32-35
- 6. Klepikova O. A. (2014), "Modern technologies for modeling business processes of the enterprise", Naukovi pratsi Donets'koho natsional'noho tekhnichnoho universytetu, vol.№ 4, pp. 257-263
- 7. Kovshova I. O. (2016), " Optimization of business processes as a way to increasing the efficiency of industrial enterprises ", Ekonomika. Menedzhment. Biznes, vol. № 1, pp. 53-62
- 8. Kostina O. M. (2017) "Diagnostics and management of business processes in the context of enterprise crisis management in the enterprise", Ekonomichnyj naukovo-praktychnyj zhurnal «Ekonomika i suspil'stvo», vol. № 10 pp. 287-297
- 9. Lysenko O. A. (2011) "The main methodological approaches to modeling business processes at the enterprise", Visnyk Skhidnoukrains'koho natsional'noho universytetu im. V. Dalia. Luhans'k, Vol. № 13 (167), pp. 314-319.
- 10. Мінухін С.В., Пономаренко В.С., Знахур С.В. Теорія та практика моделювання бізнес-процесів: Монографія. Харків: ХНЕУ, 2013. 244 с.
- 11. Morschenok T. S. (2014) "Theoretical aspects of business process management in the context of implementation of the enterprise development strategy", Biznes Inform, no. 11. pp. 295–302.
- Tarasiuk M. V. (2009), "Market research information systems for controlling automation in the management of trade networks", Visnyk Chernivets'koho torhovel'no-ekonomichnoho instytutu. Ekonomichni nauky, Vol. 4, pp. 266-275
- 13. Салига С. Я. Теоретичні аспекти аналізу інвестиційних проектів / С. Я. Салига, О. В. Яришко, Є. Ю. Ткаченко // Інвестиції: практика та досвід. 2009. № 5. С. 12-14.
- 14. Офіційний сайт Державна служба статистики України [Електронний ресурс] / Режим доступу: http://www.ukrstat.gov.ua/
- 15. Офіційний сайт компанії Nielsen [Електронний ресурс]. Режим доступу: http://www.nielsen.com
- 16. Цопа М. Б. Аналіз ринку безалкогольної продукції у Вінницькій області / М. Б. Цопа // Інноваційна економіка. 2013. № 10. С. 70-75.
- 17. Квишко Т. Аналіз стану ринку безалкогольних напоїв в Україні / Т. Квишко // збірник наук. праць IV студентської науково-практичної конференції «Товарознавчі та маркетингові дослідження товарних ринків». В.: Вид-во Вінницького тоговельно-економічного інституту. 2017. С. 180-183.
- 18. Офіційний сайт компанії AR-Groupe Nielsen [Електронний ресурс]. Режим доступу: https://argroup.kiev.ua
- 19. Офіційний сайт компанії IDS Group Ukraine [Електронний ресурс]. Режим доступу: http://idsservice.com.ua
- 20. Інформаційний портал Delo.ua [Електронний ресурс]. Режим доступу: https://delo.ua
- 21. Офіційний сайт Агентства з розвитку інфраструктури фондового ринку України [Електронний ресурс]. Режим доступу: https://smida.gov.ua
- 22. Інформаційний портал Agronews [Електронний ресурс] / Топ-10 виробників безалкогольних напоїв // Режим доступу: http://agronews.ua/node/72198
- 23. Андрейчіков О.О. Використання сучасних інформаційних технологій в процесі розробки регламентів довільної складності / О.О. Андрейчіков, О.М. Гуца, О.Г. Українець // Науковотехнічний збірник «Комунальне господарство міст» ХНУМГ імені О.М. Бекетова серія «Технічні науки та архітектура» – 2013. – вип. №110. - С.259 - 265.
- 24. Єдиний державний веб-портал відкритих даних [Електронний ресурс]. Режим доступу: http://data.gov.ua
- 25. Офіційний сайт ТОВ «КЗН «РОСИНКА» [Електронний ресурс]. Режим доступу: http://www.rosinka.ua
- 26. ДСТУ 2974-94 Технологічне підготовлення виробництва. Основні терміни та визначення. [Електронний ресурс] / – Режим доступу: http://ksv.do.am/GOST/DSTY_ALL/DSTU1/dstu_2974-95.pdf

Received: 30.05.2018 **Reviewed:** 14.06.2018 **Accepted to publishing:** 25.06.2018