

MODELING OF FINANCIAL INDICATORS IN MARKETING RESEARCHES OF COMPANY ECONOMIC EFFICIENCY INCREASE

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ABSTRACT

The article analyses the main competitive differentiators, identifies the problems and proposes the mechanisms for managing the products competitiveness at three processing enterprises in the Republic of Tatarstan. The authors explore certain financial indicators and their impact on improving the company economic efficiency. The study proposes a scenario prediction calculations for the financial performance change dynamics due to the implementation of marketing measures. We consider the option of sales volume increase due to the proposed marketing communications for the processing enterprises. We proposed option improvement of marketing activity in the analyzed enterprises, in which in addition to the traditional ways of increase of competitiveness of products, it is becoming increasingly important new forms and methods of interaction and interrelation of actors in the field of financial and information space based on the wide use of information and communication technologies. In this article it is proposed to increase product sales, while increasing the costs associated with their implementation and as shown, we conducted predictive calculations, this will increase the net profit. According to our calculations implemented will allow to increase market share, thereby improving the economic efficiency of the analyzed companies.

Keywords: financial stability, processing enterprise solvency, effective economic development, product sales, management, competitive differentiators, business processes, regional brand, product image, quality system, pricing policy, product range, integrated approach, sales volume, market segments, linear model, indicator forecasting, market share, financial risk, economic efficiency, marketing research.

INTRODUCTION

The company effective economic development involves the production and sales of products that meet the price and quality requirements of both the producer and the consumer with the main focus on the competitive differentiator. The issue is of complex nature and the solution to the problem could include the introduction of products competitiveness management mechanisms at the processing enterprises, that is, the implementation of consistent, determined management effort in the company [2]. Currently, the problems of increasing economic efficiency, as well as the mechanisms for competitiveness management, are explored by J. Strandkov, [13], E.Horská & P. Orémus [3], I. Kapaj et al. [4], I. Keramidou et al. [5], E.Pindado & S. Alarcón [8], O. Rudych [10], R.J.Sexton [11], S. Stanciu [12], D.Stuart & M.R.Woroosz [14].

MATERIALS AND METHODS

The impact on internal business processes requires the application of technologies that will allow to better navigate the external environment and increase the efficiency of the enterprise's operations [9]. We have analyzed the product competitive differentiators and identified the problems in the processing industry

enterprises. Therefore we propose the following tools for managing the products competitiveness as conditions for increasing the economic efficiency of the processing enterprise as a whole:

- analysis and shaping of consumer tastes to the processing enterprises products (including the promotion of a healthy lifestyle);
- regional brand confidence and product image development, built on the basic consumer preferences;
- monitoring of products competitiveness in the processing industry;
- introduction of quality systems;
- development of products appearance and package policy;
- development of pricing policy;
- development of recipe policies and new product types.

Development of new product types is one of the aspects for building products competitive advantages in the processing industry [6]. Product range expansion serves as a source of sales volume increase and contributes to the development of new market segments [7]. The systematic approach to new product types development involves the need to consider the multi-stage nature of the product's life cycle (the stages of recipe development, pilot production and sales, introduction to the market).

Effective information and marketing support is an important condition for increasing the processing enterprise competitiveness [14]. The improvement of marketing operations at the analyzed enterprises is determined by the fact that, in addition to traditional methods of increasing products competitiveness, new forms and ways of interaction and interconnection of the subjects of society in the sphere of material and information space are becoming increasingly important, based on the extensive use of information and communication technologies [1]. Hence a strategically important objective for manufacturers is to determine the main directions for improving the concept and strategy of business management in general, and the concept and strategy of marketing operations in particular.

RESULTS

We have explored three meat-processing enterprises located in Tatarstan Republic, namely PLC «Naberezhniye Chelny meat-processing plant» (NChMPP), PLC «Bugulma meat-processing plant» (BMPP) and PLC «Chistopol meat-processing plant» (ChMPP).

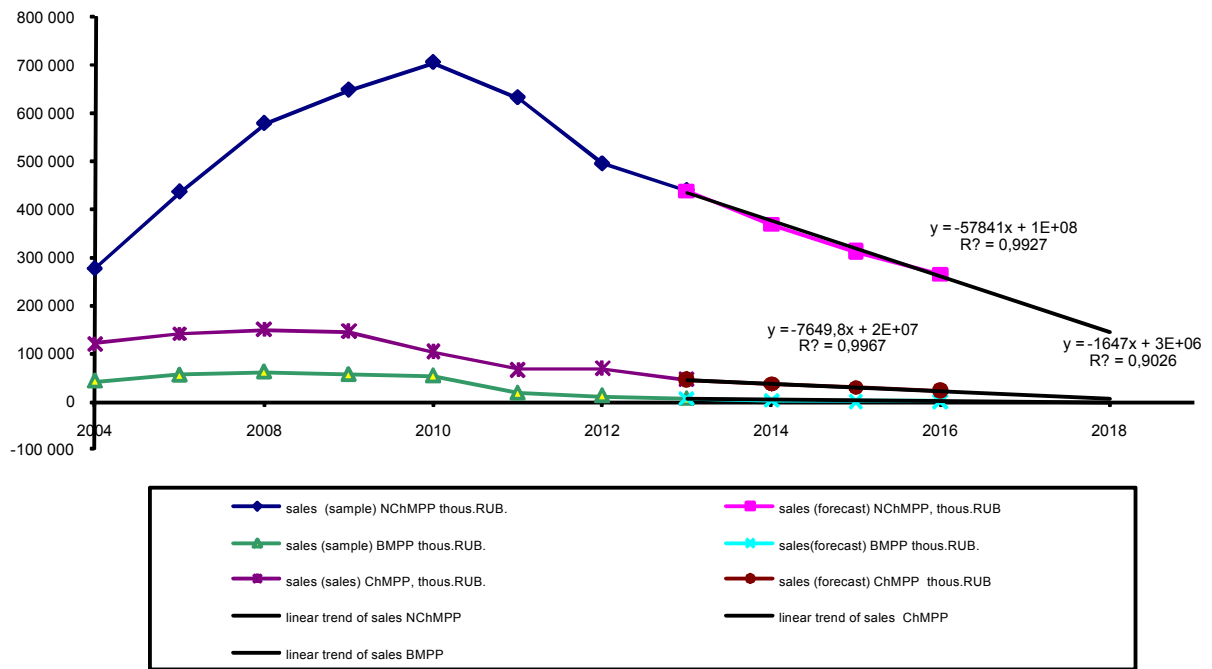


Fig.1 Forecast of sales volume change at the analyzed enterprises

With regard to the analyzed processing enterprises, it should be noted that marketing measures aimed at increasing the products competitiveness are not fully implemented. This is evidenced by the dynamics of sales volume changes in 2009-2016 and by the indicator changes forecast based on the linear model (Fig. 1). The graph demonstrates that all enterprises, starting from 2010, are experiencing a sales volume decrease and, correspondingly, sales revenue decrease. This conclusion is also confirmed by the downward linear trend of the market share ratio for all analyzed enterprises (Fig. 2). At the same time, a decrease in this ratio respectively leads to a decrease in the integrated complex efficiency index and affects the change dynamics of all other ratios.

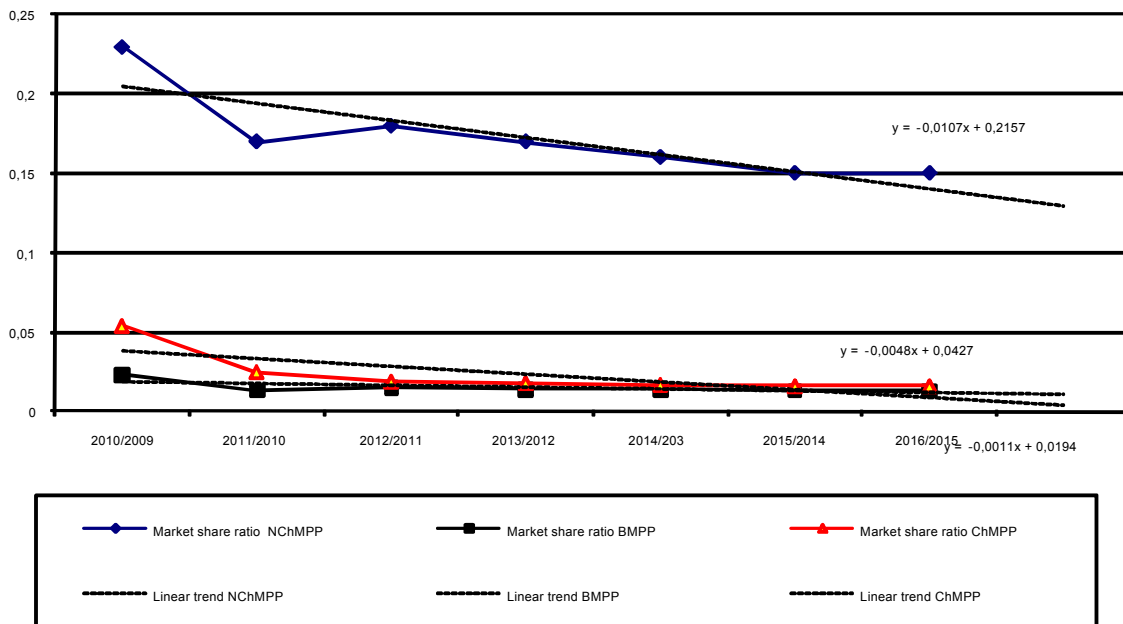


Fig. 2. Dynamics of market share ratio change in the analyzed enterprises

We have considered an option of sales volume increase through the implementation of marketing measures aimed at competitiveness and market share increase. This will boost the sales volume, while raising the costs associated with their implementation (Fig. 3). As predicted calculations have shown, this will increase the net profit of processing enterprises and prevent them from bankruptcy in the short term. Positive impact of these measures will also affect the market share ratio (Table 1).

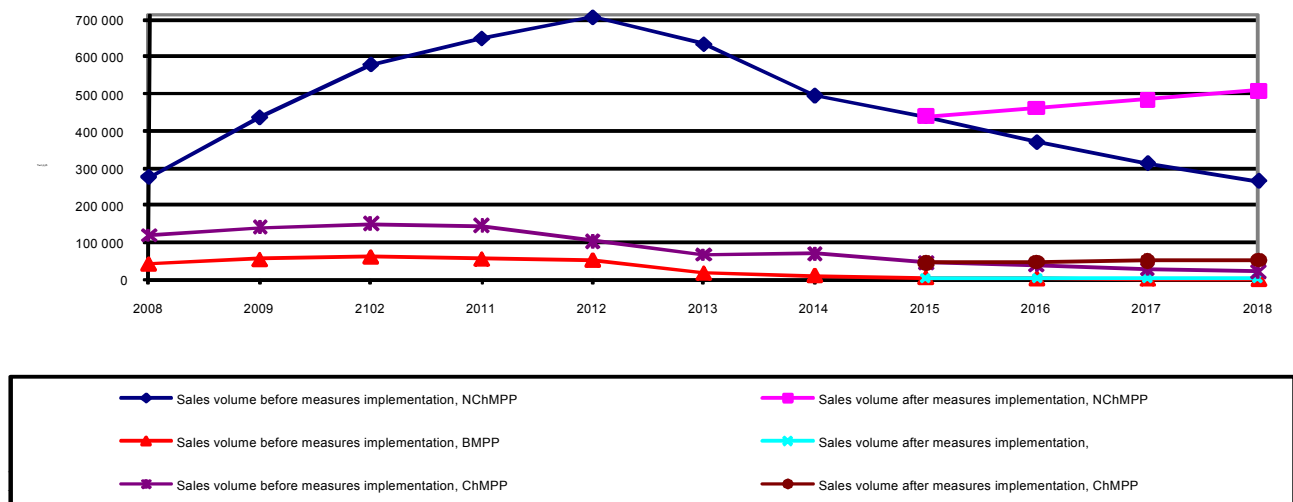


Table 1. Calculated values for the market share ratio (R_{ms}) after marketing measures implementation

	2007/ 2006	2008/ 2007	2009/ 2008	2010/ 2009	2011/ 2010	2012/ 2011	2013/ 2012	2014/ 2013	2015/ 2014	2016/ 2015
PLC «Naberezhniye Chelny meat-processing plant»										
R_{ms}	0,23	0,17	0,18	0,17	0,16	0,15	0,15	0,16	0,16	0,17
PLC «Bugulma meat-processing plant»										
R_{ms}	0,023	0,013	0,015	0,01	0,014	0,013	0,013	0,013	0,014	0,014
PLC «Chistopol meat-processing plant»										
R_{ms}	0,054	0,025	0,019	0,02	0,017	0,016	0,016	0,016	0,016	0,017

The above mentioned data indicate the importance of an integrated approach for the increase in the enterprise economic efficiency. This approach includes the methods aimed at increasing competitiveness and an acceptable level of financial risk. All these measures will improve the financial stability, solvency and overall efficiency of the processing enterprise.

CONCLUSION

One of the main directions of enhancing the productivity as the performance indicator is the improvement of the management structure. In general, the rational management structure of a meat-processing enterprise, in our opinion, should satisfy the following requirements:

- to be functionally suitable, to guarantee reliability and provide management at all levels;
- to be operative and to keep up with the progress of the production process;
- to have a minimum number of management levels as well as rational links between management bodies;
- to be economical, minimizing the cost of performing management functions.

The table 2 illustrates the most rational organizational structure at an enterprise that meets the requirements of scientific and technological development reflecting the relationship between the comparative characteristics of the enterprise's production management system and the organizational form of its establishment.

The stated comparative management system characteristics (Table 2), in comparison with the organizational form of their establishment, indicate that, if applied to the enterprises under consideration interacting with the economic environment both vertically and horizontally, the most rational development path in the restructuring process is the process of the linear-functional management development into the divisional one, which indicates a change in the requirements for the hierarchy of the described characteristics.

Table 2. Characteristics of the basic production management structures

#	Comparative characteristics	Company production management structures				
		Linear	Functional	Linear-functional	Divisional	Matrix
1	Degree of management centralization	High degree of compliance	Partial compliance	Partial compliance	Partial compliance	Partial compliance
2	Qualification requirements for the manager	The highest	Less high than in linear	Less high than in functional	Relatively high	Less high than in linear-functional
3	Specialization	No specialization	More than in linear	More than in functional	Significant	Significant
4	"Vertical links"	Strong	Less strong than in linear	Less strong than in functional	Moderate	Weak
5	"Horizontal links"	weak	Stronger than in linear	Stronger than in functional	Moderate	Strong

However, in the conditions of a functioning enterprise, it is not always expedient to "break" the existing management structure with well-established ties between departments. Moreover, we have observed the advantages of the existing linear-functional management structure of PLC «Naberezhniye Chelny meat-processing plant». Therefore, we propose the organizational structure as in the case of PLC «Naberezhniye Chelny meat-processing plant», which combines the features of both linear-functional and divisional management structures. We propose to introduce a divisional management structure according to the product, that is, each production category (sausages, semi-finished products and canned products) will be headed by separate managers, authorized to determine the development strategy in accordance with their profile, customers' requests and environmental conditions.

Meanwhile, the marketing department, the supply department and the sales department operation principle is changing. A separate group of specialists is assigned to each direction and its number is determined by the scale of operation and the sales of a given product type.

Thus, we could conclude that the proposed restructuring mechanism for the analyzed enterprises with the transition to a divisional management structure will allow to make the best possible use of the enterprise's capacity, to make structural subdivisions operation more flexible, to pay as much attention to a particular product as a small specialized company does, responding to changes in the external environment and adapting to changing conditions. This type of management structure focuses on achieving the ultimate success of the enterprise's operation (the production of specific products types, the satisfaction of certain consumers needs and the saturation of a specific regional market). Reducing the complexity of management process experienced by senior managers will allow us to separate operational management from strategic management in the analyzed enterprises. Consequently the enterprise top management will concentrate on strategic planning and management. The shift of responsibility for profit to the divisions as well as the operational management decisions decentralization will bring enterprise management closer to the market problems.

In the modern economic conditions, a human factor is one of the stable elements of labor productivity growth, the functioning efficiency and the enterprises competitiveness. Therefore, the main condition that ensures the enterprise progressive development is the effective use of labor resources.

To maximize the organization's employees potential, HR management should play a significant role in the enterprise organizational strategy. HR management system (HRMS) should ensure that the company achieves long-term development goals and create a system of assessing the degree of goals achievement (indicators). Thus, the task of creating a management model that would improve the organization HR management efficiency is quite relevant.

We have proposed a model of the complex project, which is based on the division of the HR management system designing process into five main functional components, of which the HR management service design is the final generalizing project developed in terms of four main areas: economic, organizational, documentary, information and technical and regulatory. This division allows to provide a comprehensive approach to the problem of HRMS design in the enterprise.

When designing an HR management system, it is proposed to pay special attention to four main HR management functional subsystems:

- subsystem for payment, assessment and staff performance;
- subsystem of staff work organization;
- subsystem of workplaces organization;
- subsystem of enterprise's working community establishment and development.

To ensure the HR management system integrity in the analyzed enterprises, the authors suggest that the HR management service should be considered as the main structure. Therefore, an enterprise HR service establishment project is becoming a final and generalizing stage of HRMS design. The paper proposes three main directions of the enterprise HR management service design: the development of the HR management service organizational structure; the determination of HR management service staffing and documenting; the determination of information and technical support of the HR management service.

Thus, one of the preconditions for the enterprise smooth operation is the establishment of a unified HR management system based on the system integrated design, which should precede the changes in the internal and external environment of the organization, rather than follow them, ensuring its continuous development and improvement and being the guarantee of its economic and socio-psychological effectiveness. The need to introduce a model of an integrated HR management system at the enterprises with the help of an efficient system design process is a condition for increasing the overall enterprise performance.

DISCUSSION

One of the main conditions of sustainable financial status of the enterprise is the cash flow that ensures repayment of all priority payments. The lack of minimum required reserve of funds evidence of serious financial difficulties. A prerequisite for the emergence of financial difficulties is the tendency of reducing the share of cash in current assets of the company with the increasing its current liabilities.

Therefore, the problem of optimizing cash flow is an important problem. It needs to be addressed in the process of improving the management of working capital. As is known, the change in the value of cash flows directly affected by the change in the value of equity, liabilities and non-current assets.

To identify ways of optimizing cash management we have calculated the corresponding performance with changing some initial parameters: the increase in equity and the decrease in non-current assets to determine the impact of each on the level of cash flows, and therefore the level of financial stability and solvency of the enterprise. The change in the value of equity capital assumed in the previous calculations, and the change in non-current assets aims to reduce by 5%. The results of calculating changes in cash flows in 2016 as a result of implementation of measures for their optimization are presented in table 3.

Table 3. The results of optimization of cash flows in the analyzed enterprises

Indicators	PLC «Chistopol meat-processing plant»		PLC «Bugulma meat-processing plant»		PLC «Naberezhniye Chelny meat-processing plant»	
	the fact	optim.	the fact	optim.	the fact	optim.
Changing of own funds, thousand RUB.	-603	-15570	8868	78566	1402	29943
The change in non-current assets, thousand RUB.	2114	2008,3	52659	50026	12179	11570
Change in liabilities, thousand RUB.	1031	15998	36792	-32906	25905	-2038
The change of monetary funds, thousand RUB.	-1686	-1580,3	-6999	-4366	15128	16335
The increase in cash as a result of optimization, %	6,6		60,3		7,9	

As can be seen from table 3, optimization of capital structure and the change in the value of non-current assets will lead to an improvement in cash flow in the analyzed enterprises and have a positive impact on their solvency.

Thus, we can conclude that for increase of efficiency of functioning of the enterprise requires a holistic approach. Need to build on the results of the financial analysis and methods aimed at improving the competitiveness of products, optimize the structure of enterprise management. Methods aimed at managing the current assets to improve the efficiency of their use, of management of the capital structure to achieve its optimum ratio with minimum cost and an acceptable level of financial risk. All these measures will improve financial stability, solvency and efficiency of meat processing enterprises.

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