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**ECONOMIC EFFICIENCY OF NEW PRODUCTION MANUFACTURING BY «ROSHEN» COMPANY****N. Sokur, G. Subbotina, A. Sokolenko, B. Chebanov**

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The authors found out that the quality and price of the concern's production have an essential impact on economic efficiency of the concern's enterprises work. It is shown that the «Roshen» corporation is the biggest manufacturer of confectionery products in Ukraine. Formulas for calculating the wholesale prices of the confectionery product, terms of cost recovery, coefficient of efficiency and annual economic effect are applied.

Also, the practical calculation of parameters and planned cost of caramel «Paradise apple» has been made.

**Key words:** «Roshen» confectionery production, price, cost, profit, economic effect.

**ЕКОНОМІЧНА ЕФЕКТИВНІСТЬ ВИГОТОВЛЕННЯ НОВОЇ ПРОДУКЦІЇ КОМПАНІЇ «ROSHEN»****М. І. Сокур, Г. О. Субботіна, А. В. Соколенко, Б. Ю. Чебанов**

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Авторами встановлено, що істотний вплив на економічну ефективність роботи підприємств концерну відіграють якість їх продукції і ціна. Показано, що корпорація «Roshen» є найбільшим виробником кондитерських виробів в Україні. Наведено підхід до розрахунку оптової ціни кондитерського виробу, строку повернення витрат, коефіцієнта ефективності та річного економічного ефекту. Виконано практичні розрахунки наведених показників, а також планової собівартості карамелі «Райське яблуко».

**Ключові слова:** кондитерська продукція «Roshen», ціна, собівартість, прибуток, економічний ефект.

**PROBLEM STATEMENT.** Confectionery factories of «Roshen» company belong to enterprises of recycling raw materials and produce products that are directly consumed by the consumers. Confectionery is extremely popular in Ukraine. The level of confectionery consumption per person annually by Ukraine takes 7-8th place in the world and this figure tends to improve towards an increment in consumption of confectionery per capita.

Concern «Roshen» is the largest manufacturer of confectionery products, both in Ukraine and the CIS, and it is constantly has a policy to expand sales of its products segment. This influence the sales volume of confectionery «Roshen» influenced by its quality, price and cost-effectiveness for the company that manufactures these products.

Therefore, the study of economic efficiency of manufacturing new products for the confectionery industry enterprises is an urgent problem.

**EXPERIMENTAL PART AND RESULTS OBTAINED.** Confectionery factories of «Roshen» concern are constantly working to create new original products and expand its range of production.

Important role in the manufacture of new products influenced by its economic justification. In determining, the economic feasibility of new products should take into account the time for which it will pay off the cost of production. This assessment is based on the analysis of potential demand and potential supply. In addition, confectionary should explore the possibilities, production capacity now, and the likely return on necessary investments. Also possible term "market life" of product is taken into account and influence factors of technological trends and obsolescence.

A separate study is possible profit from the intended market share.

The results may be approximate. Profit is expected to be calculated by the formula:

$$P = (SP - C)v, \quad (1)$$

P – profit is expected;

SP – likely selling price per unit;

C – likely cost per unit;

v – volume of selling products.

Expected conditions for the implementation of product innovations income should be compared to the necessary investments to create new product and its introduction to the market. Comparison of the expected profit (P) and capital (K) allows determining the return on investment; it is compared to the minimum investment for enterprise efficiency (Ei):

$$\frac{P}{K} \geq E_n \quad E_i \geq D; \text{ або } E_i \geq D = i, \quad (2)$$

where i – interest on the loan.

If a company is going to invest their own funds, the efficiency should be higher (at least) at the rate of interest on deposits (D) that emerged in the market loans. The efficiency of investment also depends on the economic policy of the company. Also into account taken the possible costs of sale.

Also evaluated the competition for its product features and capacity of possible market share, brand image and its popularity. Preparation for release of a new product involves a preliminary identification of the main limitations: the maximum duration of development time; the need for waste production technologies and sources of logistics; acceptable level of costs. That is to select the ideas appropriate to proceed with the following criteria:

- ability to meet clearly defined market needs;
- potential reduction in production costs as a result of ideas or innovation;
- opportunity to materialize the idea of using existing production facilities and sales channels;
- the necessary financial resources for new productive investments and opportunities of advertising organization and after-sales service;
- the ability to protect innovations, which is offered, from the development of competitive businesses and likelihood of parallel development of innovations by competitors;
- predictable directions of state regulation and innovation support.

Term cost recovery (T) determined by the ratio of simultaneous costs (S) to the annual economy from reduced production costs, obtained because of the introduction of new equipment. The value of the inverse term return is called efficiency ratio and is defined by the formula (S):

$$\text{Якщо } T_g = \frac{Sg}{(C_1 - C_2) \cdot D_2} \quad (3)$$

$$\text{то } E = \frac{(C_1 - C_2) \cdot D_2}{Sg} = \frac{1}{T_g}$$

When comparing several options are optimal point, which has a minimum value. Calculation of annual economic benefit of the new caramel production for meeting the needs of consumers, or improving quality of products (or products replaced the previous quality products that are not in demand by consumers), including new products improved; quality based on inventions and innovations offers, based on a formula:

$$E = (P - E_H \times K)A \quad (4)$$

where E – is annual economic impact of new products or improved product quality;

P – profit from the sale of unit of new products and increase of profit;

E<sub>n</sub> – normative coefficient of effectiveness of capital investments;

K – capital investments for production of new products;

A – annual volume of new products or products of improved quality in the accounting period in physical units.

Special attention is paid to the analysis of positioning.

Determine the characteristics of the product, distinguishing it from competing products, the possibility of creating potential customers' incentives for purchase it. Together, these trends analysis enable making the decision on the feasibility of establishing and release of a new product.

We considered the feasibility of production of new candy caramel «Paradise apple». In its functional purpose of this sort cannot be compared with previously released kinds of products. Therefore, temporary wholesale price of caramel determined based on calculations and established profitability. Calculation of the wholesale price is determined by the formula:

$$P = C(I = SC) \quad (5)$$

where C – cost 1t of caramel;

SC – standard cost, but no more than 13%.

Initial data for calculation of planned (project) cost 100 kg of caramel presented below.

Table 1 – Initial data for calculating the planned cost of caramel «Paradise apple»

Indicators	Volume
Raw (UAH)	672,99
Supporting materials (UAH)	40,0
Fuel and electricity (UAH)	15,0
Basic salary per shift (UAH)	27
Overheads (UAH)	52,0
Total cost (UAH)	806,99

Also taken into account:

- normative factor - 0.15

-annual production of caramel (kg) - 1952

-capital expenditures without additional costs (Ce) (thousands of UAH) -214107.

Based on project cost and standard cost (8%) level of the project wholesale price (excluding turnover tax) 1t of caramel «Paradise apple» is:

$$SP = 806,99 \times (1 + 0,08) = 871,55$$

Standard costs of supporting materials, fuel, energy and wages are from guidance «Methodological specified and normative costs for definitions and wholesale retail prices to confectionery sugar products». The cost of raw materials is determined according to the recipe and commodity prices considering transport and procurement works.

Profit from sales per unit (UAH) determined by the difference between wholesale (project) price and project cost of new products per unit, and is equal to:

$$P = 871,55 - 806,99 = 64,56$$

Specific capital investments for production of caramel «Paradise apple» is calculated as follows:

$$K = C_e / A \quad (6)$$

$$K = 214107 / 1952 = 109,68 \text{ thousands of UAH}$$

The annual economic effect calculated by the formula:

$$E = (64,56 - 0,15 \times 109,68) \times 1952 = 93910,72 \text{ thousands of UAH}$$

Thus, the annual economic impact from implementation of the line of caramel «Paradise apple»

was 93910.72 thousands of UAH.

Term cost recovery calculated by the formula (3.6) it is:

$$T_c = 214107 / 93910,72 = 2,5 \text{ years}$$

Based on these calculations, we recommend «Roshen» company start production of caramel «Paradise apple» to allow additional profit.

Similarly calculates the of planned costing on some sort of caramel JSC «Kremenchuk confectionary factory».

Enterprises of confectionery industry in the pricing of their products for a long time used pricing methods focused on costs (average costs plus allowance or getting target profit margin).

In the market economy, these methods were imperfect and confectionery factory «Roshen» company must take into account both the competitiveness of its products and competitors' prices.

Price determinatives on caramel and chocolate candy by planning departments of confectionery factories, and then coordinates with the department of assortment management of «Roshen» company.

Economists of company found that demand for sweet products determines the maximum price confectionary factory can request for their goods. A minimum price determined by the cost of the enterprise.

«Roshen» company seeks to assign to the sweet products the price that it completely covers all costs of production, distribution and sales, including a fair rate of return for the ongoing efforts and risks.

Knowledge of pricing and competitors' products makes it possible to calculate their own cost.

The basis of the method of calculation of the initial price are:

1. Formulation of problems of pricing.
2. Determination of demand.
3. Ensuring of survival.
4. Profit maximization.
5. The conquest of leadership on indicators of market share.

There is also edited calculation statement of the company, by which established the price of new products. It gives the actual cost of materials needed to produce a certain product, the cost of storage of raw materials, cost of labor per unit, warehousing, advertising.

The choice of pricing strategy is the content of the concept of confectionery factory in determining their prices. This determines the planning of profit from the sale of goods.

Production of a new kind of sweet products should be done for recipes, agreed with the Ministry of Food. Current lines formed with equipment designed for the confectionery industry.

In a market economy the price of confectionery products along with quality, uniqueness, appearance relates to the basic factors of success and competitiveness on domestic and foreign market. Based on the conducted market research on the level of the importance of these factors for consumers scored the highest number of points.

Table 2 shows the values of these factors for the company «ROSHEN» and its main competitors «Kyiv-Conti» and concern «AVK».

Table 2 – Key success factors of confectionery company «ROSHEN» and its competitors among consumers.

Success factors	Importance of the factor for consumers	The value factor for the company «Roshen»	«KK»	«AVK»
Quality of products	5	5	5	4
The uniqueness of products	5	4   Éclair 5	4	4
Appearance of products	5	4,5	4	3,5
Ability to sell	5	5	3	3
Design of retail space	4	4	2	2
Value for assortment and seasonality	4	3	3	2
Advertising	4	4	2	3
The use of natural ingredients	4	4	2	2
The image of manufacturer and its place in the market	4	4	3	3
Prestige. Notoriety of manufacturer	5	5	3	3
The logo	3	4	3	3
Update of the range	3	5	3	3
Reasonable price	3	5	3	3

Analyzing the table, we see that the marketing of products, its identification significant role played by advertising, the use of natural ingredients, price, update of product range. Confectionery products of the «ROSHEN» group have received highest rating on all counts. Caramel «Éclair» is recognized as universal product - 5 points. If you put the average score for all parameters, it will be next:

Concern «AVK» - 2,96 points;

«Kyiv - Conti» - 3,07 points;

«ROSHEN» company - 4,30 points.

The price of the product - an important argument. According to consumer product quality should have a 100% guarantee and the price should be reasonable.

Fluctuations of prices for the products of the confectionery industry (according to the «Business» magazine) has averaged about 50% (from 6% for crackers and 100% for candy «Assorti»). Direct correlation between the prices of sugar, cocoa - and pastries is traced, while 65.5% of production (small and medium) had a price lower than the industry's average. In recent years, Ukrainian confectionery market leaders seek to enter the market in general sweets in the upper

price range. They believe that Ukrainian consumers can already perceive such products, besides according confectioners availability in the range of not cheap sweets appears in good company image. In order to get in the way of niche, bakers produce not only new products, but also alter recipes, packaging of familiar to consumers sweets.

**CONCLUSIONS.** Confectionery factories of «Roshen» company is the largest confectionery manufacturers in Ukraine. To fight competitors and win new confectionery market segments they conduct aggressive marketing policy, which are active in the

following areas: creating new confectionary, applying innovative production technology, improvement of product quality and increase of the economic efficiency of enterprises. Great attention is paid to financial activities, use of advanced methods of pricing, optimization of terms of the cost recovery; profitability and efficiency ratio. This financial and marketing policy enables enterprises of concern «Roshen» win the competition and maintain high economic efficiency of its activities in the confectionery market.

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### ЭКОНОМИЧЕСКАЯ ЭФФЕКТИВНОСТЬ ИЗГОТОВЛЕНИЯ НОВОЙ ПРОДУКЦИИ КОМПАНИИ «ROSHEN»

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Авторами установлено, что существенное влияние на экономическую эффективность работы предприятий концерна играют качество их продукции и цена. Показано, что корпорация «Roshen» является крупнейшим производителем кондитерских изделий в Украине. Приведен подход расчета оптовой цены кондитерского изделия, срока возврата вложений, коэффициента эффективности и годового экономического эффекта. Выполнены практические расчеты приведенных показателей, а также плановой себестоимости карамели «Райское яблоко».

**Ключевые слова:** кондитерская продукция «Roshen», цена, себестоимость, прибыль, экономический эффект.

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