ENSURING ECONOMIC SECURITY OF TRADE ENTERPRISES IN THE FORMATION OF PRICING POLICY

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ABSTRACT

The article considers the problem of ensuring the economic security of trade enterprises by forming an optimal pricing policy. The methodology of formation the minimum and maximum selling prices of trade enterprise, maintenance of margin of economic security, which is based on research of turnover costs and working capital of trade enterprise is offered. Based on statistical data of trade enterprises, the types of prices by product range are determined, which form a stable economic situation and ensure economic security of trade enterprise. The necessity of forming the optimal price policy and selling prices of trade enterprises with the use of Pareto efficiency tools and construction of single-criteria and multi-criteria tasks, indicators of quality of commodity resources of trade enterprises is substantiated. Using the Excel software processor and the «Regression» function, economic-mathematical models of optimal prices for the product range of trade enterprises are built. The results testified to the effectiveness of the proposed model of the optimal pricing policy of trade enterprises, as the obtained values are within the minimum selling prices, which provides economic security of trade enterprises. The process of forming the pricing policy of trade enterprises to ensure economic security is proposed, which is based on the principles of pricing, appropriate methodological tools and monitoring of market environment factors. Organizational, economic, legal, social and market (marketing) mechanisms for the formation of effective pricing policy of trade enterprises aimed at ensuring economic security are identified. This study is practically interesting for personnel of trade enterprises, regardless of organizational-legal forms of ownership and activities, and theoretically – for researchers dealing with pricing.

Keywords: trade enterprises, economic security, pricing policy, Pareto efficiency, turnover costs, working capital, product range, trade margin

JEL Classification: D40, E64, L42, L81

INTRODUCTION

Ensuring economic security and further functioning and development of trade enterprises in conditions of competition requires the formation and implementation of effective pricing policy. In forming effective pricing policy and determining the level of trade margin, trade enterprises must take into account factors of internal and external environment. Most trade enterprises, when forming pricing policy, focused on effective consumer demand, take into account economic risks and the level of competition in the consumer market.

Trade enterprises now need to improve pricing policy, as this is reflected in the economic results of their economic activities, namely the turnover, turnover costs and profitability indicators. In addition, the organizational-economic mechanisms for the formation of effective pricing policy need to be improved, taking into account changes in consumer market conditions that affect the economic security of these entities.

The pricing policy of trade enterprises is different from the pricing system of other entities. A specific feature of the pricing policy of trade enterprises is the trade margin. According to its level, the final economic result and ensuring the economic security of

trade enterprises will depend. Most of the turnover costs is the cost of commodity resources, i.e. the producer price. This value depends on the volume of orders for goods by trade enterprises and the possibility of obtaining appropriate discounts to the producer price. Since the activities of trade enterprises are aimed at forming a wide product range, their pricing policy is focused on determining the differentiated level of trade margin. It should be noted that the degree of flexibility of the pricing policy of trade enterprises is limited nature in relation to certain segments of consumers, time for the formation of commodities due to changes in suppliers, and so on.

Taking into account the specifics of pricing policy, trade enterprises choose the appropriate method of pricing, focused on the principles of pricing policy, develop and implement various pricing strategies, based on monitoring the factors of internal and external environment and state price regulation.

LITERATURE REVIEW

Despite the existing research on the use of modern methodological tools for pricing [1–8] and regulatory support for trade [9–16], the study of the impact of the COVID-19 pandemic on the activities of trade enterprises [17–19], trade enterprises face a number of problems on the formation of effective pricing policy and economic security. The main ones are: the lack of strategic approach to pricing (El-Rayes & Khalafallah, 2005); low quality of information support of the pricing process (Dariz et al., 2017); constant change of the current regulatory framework in the field of pricing (OECD, 2020); failure to take into account the monitoring of competitors' prices in the process of making management decisions on pricing (Vagsholm et al., 2020); low level of economic assessment of factors of internal and external influence on pricing (Wang& Chen, 2016); low level of management system that makes management decisions in the formation of effective pricing policy (McLoughlin & Fairweather, 2002); lack of a complex approach to pricing mechanisms (Asplund & Eliasson, 2016); lack of effective measures to optimize pricing policy according to changes in economic conditions (Mohammed & Zheng, 2017); low level of relationship between prices and elements of the marketing complex, the economic security system (Elvik, 2019) etc.

It should be noted that in the literature there are no studies of the formation of pricing policy of trade enterprises using modern methodological tools to optimize the turnover cost and quality of commodities of trade enterprises, which will ensure economic security. These studies are closely related to the practices of activity and economic security of trade enterprises and the need to optimize pricing policy by reducing effective consumer demand and changing consumer conditions caused by the COVID-19 pandemic.

The purpose of the study is to develop a methodology for forming an effective pricing policy of trade enterprises in the context of ensuring their economic security. This will allow to react quickly to changes in the internal and external environment of trade enterprises and will provide economic security to trade entities.

To achieve this purpose, the following tasks were tasks: develop of algorithm for forming the pricing policy of trade enterprises; develop of methodology for forming the pricing policy of trade enterprises to ensure economic security; substantiation and determination of the optimal pricing policy of trade enterprises.

METHODOLOGY AND METHODS

In the process of develop an effective pricing policy, trade enterprises should be guided by the following principles:

- ensuring the relationship of pricing policy with economic security to increase turnover, optimize turnover costs and increase net profit;
- taking into account consumer segments according to the level of their effective demand;
- taking into account the marketing complex and the results of marketing research;
- taking into account the level of trade customer service;
- ensuring flexibility and quick response by adapting to market changes, etc.

When forming an effective pricing policy, trade enterprises the following pricing methods are used:

- expendable;
- demand orientation;
- taking into account the prices of competitors;
- formation of price based on the real value of the goods;

- setting prices to stimulate turnover;
- combined;
- determination of prices on the basis of target profit;
- mathematical modeling;
- parametric, etc.

The choice of one or another method of pricing, in the formation of effective pricing policy, depends on the objectives of economic security (sales-oriented, profitable, stable position of the economic entity in the consumer market, etc.) and the resource potential of trade enterprises.

In the process of studying the economic security of trade enterprises, to form of effective pricing policy, depending on the market environment of trade enterprise, it is proposed to use different combinations of the following main forms of its strategic behavior:

- reduction of selling prices to the minimum allowable value, taking into account the break-even point and making a profit by increasing turnover by attracting additional customers;
- obtaining the required amount of profit by maintaining the maximum allowable prices for different groups of goods without losing their competitiveness;
- determination of optimal purchase prices for goods taking into account their quality in order to cover different segments of the consumer market, the purchasing power of buyers, which allows to increase turnover and generate additional profit;
- definition of such security margin which allows to provide a steady economic condition in the current period.

Consider the tools for the formation and implementation of pricing policy of trade enterprise depending on the strategic behavior in the consumer market.

In conditions of increasing competition in the consumer market, trade enterprise, in forming an effective pricing policy, should focus on setting minimum selling prices, while the time T_{tc} and turnover V_{ti} for each i-th type of goods should be such that the economic entity can compensate turnover costs and receive for the reporting period T_r ($T_r > T_{tc}$) profit P_i. The minimum selling price (Pr_{imin}) will be:

$$Pr_{imin} \geq \frac{P_i + TC_i \cdot k_i}{V_{ti} \cdot k_i},\tag{1}$$

where TC_i – turnover costs of the i-th type of goods; k_i – the number cycles of working capital turnover in the reporting period.

Formula (1) shows that the larger the batch of purchased goods of the i-th name and the greater the turnover rate of working capital, the lower the minimum allowable selling price can set of trade enterprise and thus ensure economic security.

With moderate competition in the consumer market, it is advisable for trade enterprise to set maximum allowable prices for different groups of goods. In this case, the price (Pr_{imax}) of the sale of goods of the i-th name to obtain the maximum possible profit (P_{imax}) for the reporting period ($_{rp}$) is determined by the following formula:

$$Pr_{imax} \geq \frac{Pi_{max} \cdot T_{vc} + TC_i \cdot T_{tc}}{V_{ti} \cdot T_{tc}}\tag{2}$$

where T_{tc} – the turnover duration of the turnover costs; T_{vc} – the turnover duration of the variable turnover costs.

The relationship between the purchase price (producer or intermediary price) and the quality of the product allows to segment the consumer market according to the purchasing power of consumers. It is the price that is associated with the question of economically optimal quality or rational quality in terms of sales of goods in a particular segment of the consumer market. Trade enterprise, buying goods from a producer or intermediary, must take into account the extent to which the purchase price of the goods corresponds to the set of consumer properties that it has. From the point of view of ensuring economic security for integrated quality assessment, it is advisable to consider the ratio of costs C_p for the production of goods and to ensure its quality Q_p or the price P of the unit quality of goods, which is determined by the following formula:

$$P = \frac{C_p}{Q_p} \quad (3)$$

Then the purchase price of a unit of quality Q_g of good, from an economic point of view, is determined as follows:

$$Q_g = \frac{P_g \max}{Q_g \max} \rightarrow min \quad (4)$$

where $Q_{g\max}$ i $P_{g\max}$ – respectively, the compromise values of the maximum possible quality of the good and the corresponding maximum allowable purchase price, which are determined by solving a multi-criteria Pareto optimization problem [20].

As parameters of the multicriteria optimization problem is accepted:

- the quality of raw materials used by the producer for the manufacture of goods S_1 and its price S_2;
- personnel qualifications S_3 and their salaries S_4.

The solution of the multicriteria optimization problem consists of the following main stages:

- on the basis of expert data or data obtained by surveying consumers, the criteria for optimizing the price and quality of good in the form of a linear regression model are formed:

$$P_g = a_0 + a_1 S_1 + a_2 S_2 + a_3 S_3 + a_4 S_4, \quad (5)$$

$$Q_g = b_0 + b_1 S_1 + b_2 S_2 + b_3 S_3 + b_4 S_4, \quad (6)$$

- based on the potential opportunities of the producer, in fact, its available resources $S_i \leq S^i{}^0$, $i = 1, …, n$, the limit of the allowable values of the optimization parameters;
- based on the limit values of the optimizing parameters, the limit of the allowable values of the criteria P_g and Q_g is formed (*Figure 1*).
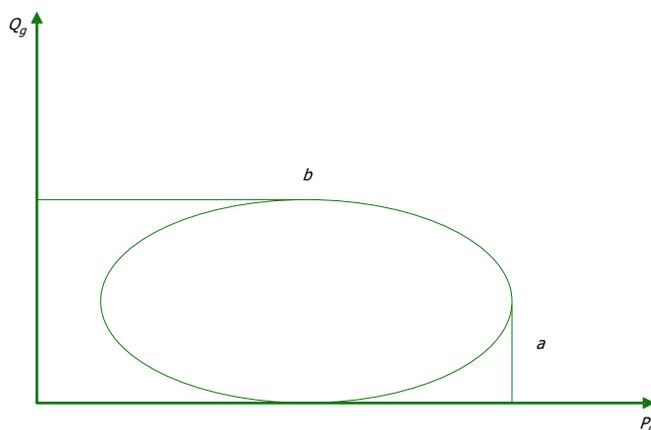
Figure 1. Determining the limit of compromise values of optimizing indicators of quality and price of goods according to Pareto

The graph contained in *Figure 1* shows that the local maximum of criterion P_g (point a) and criterion Q_g (point b) selects the set of points *a* and *b*, which are displayed on the boundary of the allowable values of optimization parameters and thus determines the Pareto set containing a compromise solution to the problem of price optimization and product quality.

Determining the coefficients of importance d_1 and d_2 [20], respectively, for the criteria P_g and Q_g multicriteria problem is reduced to a single-criteria problem with an efficiency index, which has the following form:

$$W = d_1 + P_g + d_2 + \cdots Q_g, \quad (7)$$

The problem of optimization of the criterion *W* is solved with constraints determined by the Pareto set within the allowable values of the optimization parameters and thus the parameters P_g and Q_g are calculated, which represent a compromise

solution of the original multicriteria problem.

In this case, there are no opportunities for such an analysis at the trade enterprises:

- limited to extrapolation of existing trends in changes in purchase and selling prices;
- carry out the calculation of costs for the purchase, supply, storage and sale of goods, determination of fixed and variable of turnover costs, determination of the need for working capital, research of internal and external sources of their formation;
- determination of break-even point and security margin according to the appropriate methodological tools;
- carry out the formation of the selling price (P_i). To do this, determine at what level of selling prices P_i, $i = 1, …, n$ the required sales volume of each i-th type of product is achieved, using the following formula:

$$P_i = \frac{TC_f + TC_v^1 \cdot P_{be} - V_{mes}}{P_{be}}, \tag{8}$$

where TC_f – fixed turnover costs associated with the sale of goods of the i-th name; TC_v^1 – variable turnover costs associated with the sale of one unit of goods of the i-th name; P_{be} – break-even point; V_{mes} – the value of the margin of economic security.

RESULTS

Using formula 1, based on data on the volume of turnover, turnover costs and turnover of working capital, we will calculate the minimum and maximum selling prices for goods of the food group of trade enterprise LLC «Marionika».

The results of the calculation of minimum selling prices are contained in *Table 1*.

Table 1. Minimum selling prices for goods of the food group LLC «Marionika», 2020

Product range	P_i	TC_i	V_{ti}	k_i	$Pr_{i\,min}$
Fresh poultry meat, 1 kg	80146.3	92674.1	1105	3.2	106.53
Boiled sausage, 1 kg	72584.3	95206.3	1332.0	2.8	90.94
Smoked sausage, 1 kg	63048.2	78697.4	854.0	2.2	125.71
Fish fresh-frozen, 1 kg	24111.7	18603.0	328.0	1.9	95.41
Milk 3.2% fat, 1 liter	49623.2	59188.6	3567.0	3.6	20.46
Low-fat kefir, 1 liter	12376.7	27538.3	1589.0	3.2	19.76
Cream 15% fat, 450 g	13233.4	16788.8	987.0	2.9	21.63
Low-fat sour milk cheese, 1 kg	9015.8	10728.8	657.0	2.5	21.82
Butter 73% fat, 250 g	30966.3	31859.8	1274.0	2.3	35.58
Oil, 1 l	16558.3	18504.3	458.0	2.7	53.79
Eggs, 10 pcs	51051.7	62851.6	3658.0	3.2	21.54
Sugar, 1 kg	74394.4	84729.3	5698.0	3.4	18.71
Chocolate candies, 1 kg	212509.8	279443.6	2693.0	2.8	131.95
Ice cream, 80 g	6537.5	7209.6	847.0	3.3	10.85
Flour in / g, 1 kg	40448.0	54333.1	4896.0	6.7	12.33
Bananas, 1 kg	29469.3	36308.5	1856.0	2.9	25.04
Vodka 40 vol., 0.5 l	19761.9	27136.7	458.0	4.2	69.52
Semi-sweet red wine, 0.5 l	18639.0	26990.4	389.0	3.8	81.99
Cognac, 0.5 l	19002.9	24613.5	245.0	3.2	124.70
Sparkling wine (champagne), 0.75 l	9878.0	14564.8	186.0	3.1	95.44
Beer, 1 l	51607.0	59842.3	4526.0	3.8	16.22
Black leaf tea, 100 g	5822.0	6928.2	287.0	2.4	32.59
Ground black coffee, 250 g	18573.7	19556.7	374.0	2.7	70.68
Mineral water, 1.5 l	17331.4	19484.3	2374.0	4.9	9.70

Source: compiled and calculated by the authors according to the data of trade enterprise LLC «Marionika».

Based on *Table 1* data, taking into account the profit, turnover costs, turnover and turnover of working capital for each product of trade enterprise, the minimum selling prices are obtained. Such prices are minimal in view of the turnover costs and ensuring profitability and depend on the acceleration of the turnover of working capital.

Using formula (2), the results of the calculation of maximum selling prices are presented in *Table 2*.

Table 2. Maximum selling prices for goods of the food group LLC «Marionika», 2020

Product range	P_i	TC_i	V_{ti}	T_{tc}	T_{vc}	$Pr_{i\,max}$
Fresh poultry meat, 1 kg	80146.3	92674.1	1105	3	2	132.22
Boiled sausage, 1 kg	72584.3	95206.3	1332.0	11	6	101.20
Smoked sausage, 1 kg	63048.2	78697.4	854.0	24	13	132.14
Fish fresh-frozen, 1 kg	24111.7	18603.0	328.0	31	20	104.14
Milk 3.2% fat, 1 liter	49623.2	59188.6	3567.0	4	2	23.55
Low-fat kefir, 1 liter	12376.7	27538.3	1589.0	4	2	21.23
Cream 15% fat, 450 g	13233.4	16788.8	987.0	5	3	25.05
Low-fat sour milk cheese, 1 kg	9015.8	10728.8	657.0	3	2	25.48
Butter 73% fat., 250 g	30966.3	31859.8	1274.0	18	10	38.51
Oil, 1 l	16558.3	18504.3	458.0	25	16	63.54
Eggs, 10 pcs	51051.7	62851.6	3658.0	8	4	24.16
Sugar, 1 kg	74394.4	84729.3	5698.0	14	6	20.47
Chocolate candies, 1 kg	212509.8	279443.6	2693.0	21	14	156.37
Ice cream ice cream, 80 g	6537.5	7209.6	847.0	11	6	12.72
Flour in / g, 1 kg	40448.0	54333.1	4896.0	15	7	14.95
Bananas, 1 kg	29469.3	36308.5	1856.0	5	3	29.09
Vodka 40 vol., 0.5 l	19761.9	27136.7	458.0	27	11	76.83
Semi-sweet red wine, 0.5 l	18639.0	26990.4	389.0	29	14	92.52
Cognac, 0.5 l	19002.9	24613.5	245.0	33	16	138.07
Sparkling wine (champagne), 0.75 l	9878.0	14564.8	186.0	25	12	103.80
Beer, 1 l	51607.0	59842.3	4526.0	14	6	18.11
Black leaf tea, 100 g	5822.0	6928.2	287.0	38	21	35.35
Ground black coffee, 250 g	18573.7	19556.7	374.0	34	18	78.58
Mineral water, 1.5 l	17331.4	19484.3	2374.0	16	7	11.40

Source: compiled and calculated by the authors according to the data of trade enterprise LLC «Marionika».

As the data of *Table 2*, the obtained maximum selling prices ensure greater profitability to trade enterprise and depend on the number of days to cover the turnover costs and turnover. It should be noted that this toolkit for the formation of maximum selling prices could be used when trade enterprises cooperate with suppliers of commodities and use flexible forms of payment (commercial credit) for products. This will determine the number of days of the formation of turnover costs and can release some turnover funds and ensure their savings and greater economic security.

There is a significant difference between the maximum and minimum selling prices for the products of trade enterprise LLC «Marionika» for meat, confectionery and alcoholic beverages. There is a small difference between the prices for dairy products, eggs, sugar, flour.

To calculate the selling price using formulas (3) – (6), we used the Excel, its batch application «Data Analysis» and the function «Regression» (*Table 3*). The initial data for the calculation were obtained using questionnaires of consumers of trade enterprise LLC «Marionika». To evaluate the chosen good – milk 3.2% fat, 1 l.

Table 3. The results of the evaluation of purchase price of milk 3.2 fat, 1 l (cost of quality Q)

Y	S_1	S_2	S_3	S_4
21,83	19,87	15,89	5860	6900
21,54	19,60	15,68	6320	7450
22,18	20,18	16,15	6150	7320
21,48	19,55	15,64	6400	7560
21,41	19,48	15,59	5850	7000
21,68	19,73	15,78	6050	7170
22,94	20,88	16,70	6300	7250
22,72	20,68	16,54	5750	6950
22,53	20,50	16,40	5800	7000
21,36	19,44	15,55	5750	6900

Source: compiled and calculated by the authors according to the questionnaires of consumers of trade enterprise LLC «Marionika».

Regression statistics	
Multiple R	0.930818915
R^2	0.866423853
Rationed R^2	0.759562936
Standard error	0.278773389
Observation	10
Analysis of variance	
	df
Regression	4
Remainder	5
Total	9
	Coefficients
Y-crossing	21.00973
Variable X_1	0.3943
Variable X_2	0.2631
Variable X_3	0.0002
Variable X_4	-0.0012

According to formulas (5) and (6) and *Table 3*, the following regression models are obtained:

$$Bт = 19.111 + 0.870 \cdot S1 - 1.283 \cdot S2 - 0.005 \cdot S3 + 0.004 \cdot S4, \tag{9}$$

$$Qт = 21.00973 + 0.3943 \cdot S1 + 0.2631 \cdot S2 + 0.0002 \cdot S3 - 0.0012 \cdot S4. \tag{10}$$

Using the Pareto principle, consumers preferred the quality of the product under study, respectively, according to formula (7), the coefficient of importance d_1 will be 0.8, and d_2 – 0.2. Then, the allowable value of the selling price of milk 3.2% fat, 1 l. will amount to 22.66 (0,8 · 23.55 + 0.2 · 19.1).

An extremely important factor in the formation of effective pricing policy and economic security is to take into account the concept of break-even operation of trade enterprise. Using the formula (8), we will calculate the selling prices for goods of the food group of trade enterprise LLC «Marionika» (*Table 4*).

Table 4. Sale prices for goods of the food group, taking into account the break-even point of trade enterprise LLC «Marionika», 2020

Product range	TC_f	TC_v^1	P_{be}	V_{mes}	P_i
Fresh poultry meat, 1 kg	80146.29	35.64	1105	774	107.47
Boiled sausage, 1 kg	72584.3	37.56	1332	932	91.35
Smoked sausage, 1 kg	63048.2	53.42	854	598	126.55
Fish fresh-frozen, 1 kg	24111.7	23.13	328	238	95.92
Milk 3.2% fat, 1 liter	49623.2	7.68	3567	2497	20.89
Low-fat kefir, 1 liter	12376.7	13.21	1589	1452	20.09
Cream 15% fat, 450 g	13233.4	9.35	987	691	22.06
Low-fat sour milk cheese, 1 kg	9015.8	9.73	657	460	22.75
Butter 73% fat, 250 g	30966.3	12.64	1274	892	36.25
Oil, 1 l	16558.3	18.52	458	321	53.97
Eggs, 10 pcs	51051.7	8.04	3658	2451	21.33
Sugar, 1 kg	74394.4	8.34	5698	2963	20.88
Chocolate candies, 1 kg	212509.8	54.26	2693	1964	132.44
Ice cream ice cream, 80 g	6537.5	3.85	847	465	11.02
Flour in / g, 1 kg	40448	5.31	4896	3265	12.90
Bananas, 1 kg	29469.3	10.43	1856	1299	25.61
Vodka 40 vol., 0.5 l	19761.9	28.48	458	321	70.93
Semi-sweet red wine, 0.5 l	18639	34.87	389	272	82.09
Cognac, 0.5 l	19002.9	48.36	245	172	125.22
Sparkling wine (champagne), 0.75 l	9878	47.91	186	130	100.32
Beer, 1 l	51607	6.25	4526	3168	16.95
Black leaf tea, 100 g	5822	13.33	287	185	32.97
Ground black coffee, 250 g	18573.7	21.93	374	262	70.89
Mineral water, 1.5 l	17331.4	3.52	2374	1662	10.12

Source: compiled and calculated by the authors according to the data of trade enterprise LLC «Marionika».

As the data of *Table 4*, we have selling prices taking into account the break-even activity of trade enterprise LLC «Marionika». Comparing selling prices with the data in *Table 1* it is established that the estimated prices for the goods of the food group of trade enterprise are lower than the prices taking into account the break-even point, which enhances the economic security of enterprise. The largest deviation in selling prices was recorded for such goods as fresh poultry meat, smoked sausage, low-fat sour milk cheese, sugar, vodka and sparkling wine.

Thus, the considered forms of strategic behavior of trade enterprise in the consumer market allow to determine the tools and means of forming and implementing of effective pricing policy that ensure economic security, obtaining the required amount of profit, maintaining a stable economic state in different unstable market environment.

Based on the results of generalization of scientific research and approaches to the formation of effective pricing policy and economic security, we have proposed a corresponding sequence for trade enterprises (*Figure 2*). This sequence includes nine stages, which are the develop of the pricing policy of trade enterprise, taking into account the principles of pricing and selected tools, influence of market environment factors, strategy for its implementation, evaluation of efficiency and areas for improvement.
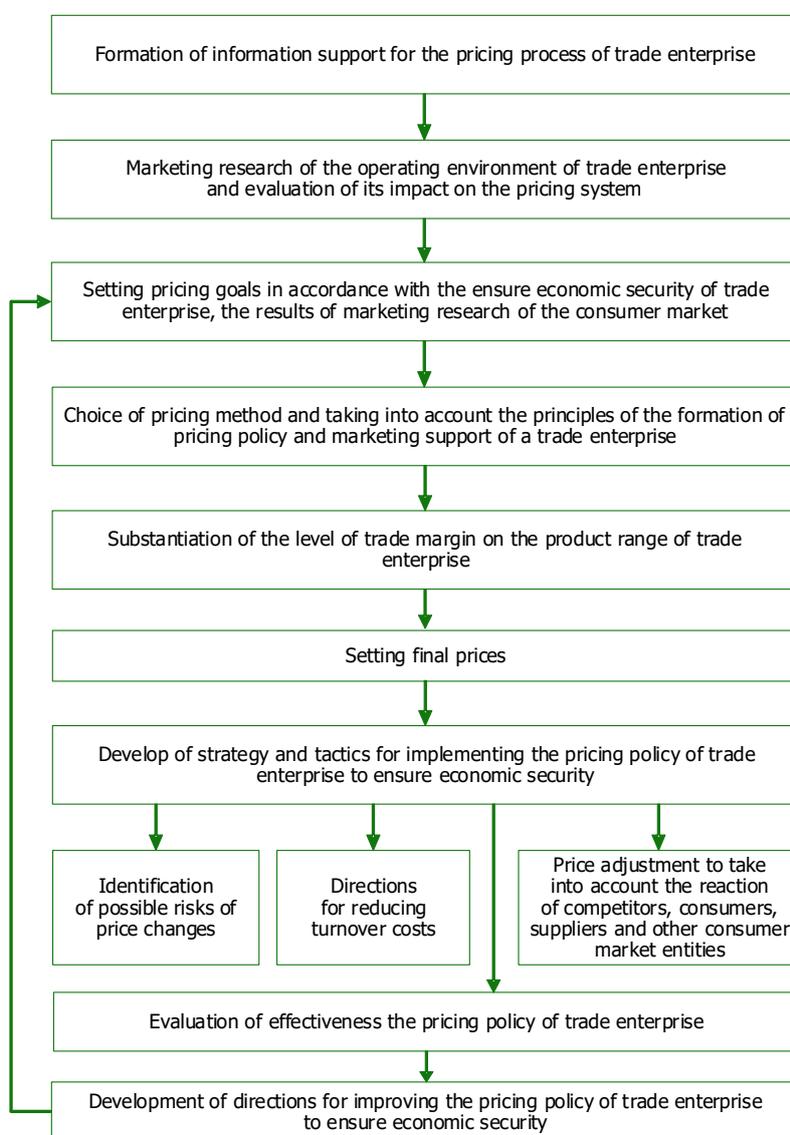
Figure 2. The process of formation the pricing policy of trade enterprises to ensure economic security

In addition, for trade enterprises we have proposed organizational, economic, legal, social and market (marketing) mechanisms for the formation of effective pricing policy (*Table 5*).

Table 5. Mechanisms for forming the effective pricing policy of trade enterprises to ensure economic security

Mechanisms	Characteristic
Organizational	They are based on the ability of management system of trade enterprise to ensure effective process of develop and implementation of pricing policy at the expense of resource potential. They envisage the establishment of effective pricing management system capable of rapid response to changes in the external environment and adaptation to the conditions prevailing in the consumer market. Include the formation of appropriate structural unit of trade enterprise for the development, implementation and control of pricing policy.
Economic	Accumulate the resource potential of trade enterprise and aimed at optimizing the turnover costs, the development of effective system of differentiation of trade margin. Provide a relationship between turnover, turnover costs and net income. Assume the use of modern methodological tools for price formation. Include the development of areas for improving pricing policy.
Legal	They are characterized by the implementation of permanent monitoring of the current regulatory framework in the field of pricing; provide control over its compliance and implementation of changes in the pricing policy of trade enterprise. There are ways to protect against unfair competition in the consumer market. Include mechanisms for legal protection and economic security.
Social	They include an evaluation of the level of effective consumer demand, a study of their needs, the level of costs for the purchase of the appropriate product, the factors that influence the decision to purchase the product. Provide research on the demographic state and the use of modern tools for economic diagnosis of social indicators.
Market	Covers a set of marketing research of consumer market entities and its infrastructure. Focused on the formation of consumer loyalty programs and discount systems. Include tools for economic-mathematical modeling to study the factors influencing the final price.

The proposed mechanisms cover important areas of formation and implementation of effective pricing policy of trade enterprises, which are focused on the market environment of economic entities, which will ensure economic security for trade enterprises, to obtain positive economic results.

CONCLUSIONS

Thus, we present the pricing policy of trade enterprise as a system of differentiated levels of trade margin and a set of measures to optimize the turnover cost, taking into account changes in consumer markets and economic conditions aimed at ensuring economic security.

When formulating the pricing policy, trade enterprises must have the appropriate information support, take into account the principles of its formation, and adhere to the current legal framework for state regulation of prices, monitoring the factors of internal and external environment, consumer market conditions. Formation pricing policy depends on the proper of goals setting of pricing and methodological tools for determining the final price.

Tools and means of formation and implementation of pricing policy are offered, based on the strategic behavior of trade enterprise in the consumer market, allowing to determine the optimal (minimum and maximum) selling prices for goods that will ensure economic security, break-even and obtain the required amount of profit. In the formation of optimal selling prices of trade enterprises, the principles of optimization and Pareto, tools for built single-criteria and multi-criteria models are applied.

The mechanisms of the formation of price policy, which allow to ensure economic security and competitiveness of trade enterprises in the consumer market, are substantiated. The developed and implemented pricing policy will ensure the growth of turnover, optimization of turnover costs and increase net profit, and hence economic security and development prospects.

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ЗАБЕЗПЕЧЕННЯ ЕКОНОМІЧНОЇ БЕЗПЕКИ ТОРГОВЕЛЬНИХ ПІДПРИЄМСТВ ПРИ ФОРМУВАННІ ЦІНОВОЇ ПОЛІТИКИ

Розглянуто проблему забезпечення економічної безпеки торговельних підприємств шляхом формування оптимальної цінової політики. Запропоновано методику формування мінімальних і максимальних відпускних цін торговельного підприємства, забезпечення маржі економічної безпеки, що ґрунтується на дослідженні витрат обігу та оборотності обігових коштів. На підставі статистичних даних торговельних підприємств визначено види цін за товарним асортиментом, що формують стійкий економічний стан і забезпечують економічну безпеку. Обґрунтовано необхідність формування оптимальної цінової політики і відпускних цін торговельних підприємств з використанням інструментарію Парето ефективності та побудови однокритеріальних і багатокритеріальних задач, показників якості товарних ресурсів торговельних підприємств. З використанням програмного процесора Excelта функції «Регресія» побудовано економіко-математичні моделі оптимальних цін на товарний асортимент торговельного підприємства. Результати засвідчили ефективність пропонованої моделі оптимальної політики ціноутворення торговельного підп-

риємства, оскільки отримані значення лежать у межах мінімальних відпускних цін, що забезпечує економічну безпеку торговельному підприємству. Запропоновано процес формування цінової політики торговельних підприємств щодо забезпечення економічної безпеки, що ґрунтується на врахуванні принципів ціноутворення, відповідного методичного інструментарію та моніторингу чинників ринкового оточення. Визначено організаційні, економічні, правові, соціальні та ринкові (маркетингові) механізми формування ефективної цінової політики торговельних підприємств, спрямованих на забезпечення економічної безпеки. Дослідження практично цікаве торговельним підприємствам незалежно від організаційно-правових форм власності та напрямів діяльності, а теоретично – дослідникам, що займаються питаннями ціноутворення.

Ключові слова: торговельні підприємства, економічна безпека, цінова політика, Парето ефективність, витрати обігу, оборотні кошти, товарний асортимент, торговельна націнка

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