**Methodology name**. The guidelines for the formation of an effective pricing policy of trade enterprises

**Essence of methodology**. The guidelines provides a logical sequence to the formation of efficient price policy of the enterprise of retail trade of food products taking into account the differentiation of price policy by commodity groups.

**Application results**. The use of guidelines ensures the development and adoption of agreed on objectives of pricing decisions for food products of economical, mass and premium segments.

Field of application: retail trade enterprises

**Range of application**: price policy of the enterprise

This methodology is intended for developing a pricing policy by enterprises trading food products and suggests its formation based on successive stages (Fig. 1).

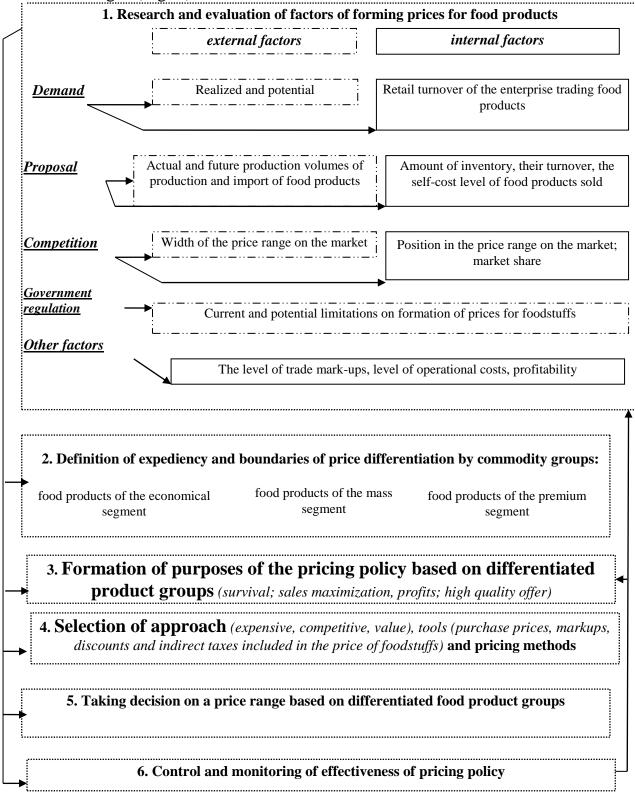


Figure 3.7. Stages of formation of the price policy of the enterprises trading food products

Determination of main directions of the pricing policy is done based on selected product groups providing the largest share of sales.

1. In the first stage, factors that influence pricing for the selected product

group are studied and evaluated in 2 directions:

- external factors;
- internal factors.
- 1.1. Assessment of external factors.
- 1.1.1. In assessing demand, both realized (satisfied), and potential demand are taken into account.

Study of the realized demand is conducted based on indicators of trade turnover and its physical volume. Data are presented in Table 1.

Table 1 Indicators of realized the demand for a particular product (commodity group) in the region

Indicators	Previous	Reporting	Deviation
	period	period	(+,-)
Retail turnover of trade enterprises by the			
commodity group, thous. UAH.			
Index of retail trade turnover by the			
commodity group, % to the previous period			
Physical volume of realization of a particular			
commodity by trading enterprises, t			
Index of physical volume by the commodity			
group, % to the previous year			

Based on indicators of dynamics, the conclusion is done:

- due to what turnover by the product group has increased or decreased prices or volume of sales in physical measurement;
- how sales of the physical quantity of commodities has changed, i.e. whether there is any prospects of sales growth.

Evaluation of the potential demand for a certain product is conducted by comparing the level of consumption of this product in the region (country) with rational standards or other countries. The results are registered in Table 2.

Table 2
The level of consumption of a particular product by population of the region
(by 1st person for the period)

Indicators	Rational	Consump	tion level:
	norm,	previous	reporting
	kg	period period	
	per person		

Volume of consumption of goods, kg		
Consumption level, % of rational standard		
Index of the consumption level		

To conduct summative evaluation of demand, the local integral index that takes into account indicators of realized and potential demand is calculated:

$$K_1 = \sqrt[3]{U_n * U_{p\phi} * U_{\phi m}} , \qquad (1)$$

where  $K_I$  is the local integral index that uses volume of realized and potential demand;

 $M_n$  is the index of the consumption level of certain goods;

 $H_{p\phi}$  is the index of retail trade turnover by the commodity group;

 $M_{\Phi^T}$  is the index of physical turnover by the commodity group.

1.1.2. Evaluation of the offer is done based on study of 2 sources: domestic production and imports.

Evaluation of the offer of certain goods as an element of market conditions on the part of domestic producers is based on data on production of a particular product in the region both for the year and by months.

When assessing the offer, it is important to take into account the seasonal factor. It is necessary to make comparison with dynamics of average sales price.

To ensure obviousness, data should be presented in Table 3.

Table 3 Production of a particular product in the region, t

Periods		Months:				_	total						
	January	February	March	April	May	June	July	August	September	October	November	December	
Previous													
Reporting													
Rate of													
change,%													
Index of prices													
for a certain													
product													

In terms of formation of pricing policy, identified trends allow to make a

conclusion on reasonability of taking into account the seasonal factor, impact of which for the trade enterprise means:

- need (or lack thereof) for formation of additional inventory for leveling of a possible shortage of supply from domestic producers in the "low season";
- need for informed selection of suppliers based on the criterion of minimizing their quotation for an objective threat of increasing stocks in the "peak" season of production.

Evaluation of imports is based on import data shown in Table 4.

Table 4.

Imports of certain goods in the region, t

Indicators	Previous	Reporting
	period	period
Imports of certain goods in the region, t		
Rate of change in imports, %		

For the purpose of a summative evaluation, the local weighted average that takes into account state and prospects of the offer is calculated:

$$K_2 = M_{np} \times [V_{np} : (V_{np} + V_{um})] + M_{um} \times [V_{um} : (V_{np} + V_{um})],$$
 (2)

where  $K_2$  is the local weighted average of the state and prospects of the offer;  $U_{np}$  is the index of consumption level of certain goods;  $U_{p\phi}$ ,  $U_{um}$  are indices of production and imports of certain goods, t;

1.1.3. Assessment of impact of demand and offer on the pricing policy of the enterprise is based on a summary indicator in the form of an multiplication model:

$$Ku = \sqrt{K_1 * K_2} , \qquad (3)$$

where  $K_u$  – integral indicator that allows to assess the character and direction of influence of market conditions on pricing in whole.

The nature of the influence of supply and demand factors on the pricing policy is based on the following map of identification of values of integral indices (Table 5).

Table 5
The map of identification of values of the integral index

Values of the integral index	Interpretation of values		
$K_u > 1$	Absolutely favorable effect		
$K_u = 1$	Favorable effect		
$1 < K_u > 0.5$	Less favorable effect		

$0.5 < K_u > 0$	Adverse effect

1.1.4. To characterize price conditions of competition in the market, the index of "width of the price range" that determines variation in prices of goods of a certain group at a certain time is used:

$$\coprod_{pud} = \coprod_{pmax} - \coprod_{pmin}$$
, (4)

where  $III_{py\partial}$  is the width of the market price range for the product group at a certain time, UAH;

 $\mathcal{U}_{pmax}$ ,  $\mathcal{U}_{pmin}$  are the maximum and minimum price, respectively, of goods on the market in a certain period of time, UAH.

This index should be calculated separately for goods of "economical", "mass" and "premium" segments within the same product group, if such differentiation is present.

Results of evaluation of width of the price range on the market are shown in Table 6.

Table 6 Evaluation of the width of the price range for the product group in the market

Date	Product Category	$\coprod_{Min}$ ,	$\mathcal{L}_{Max}$ ,	$III_{pud}$ ,	$III_{pud}$ ,
of monitoring		-	UAH	UAH	%
As of	Economy segment				
:	Mass segment				
January , 201_	Premium segment				
	Economy segment				
	Mass segment				
	Premium segment				
February , 201_	Economy segment				
	Mass segment				
	Premium segment				
March , 201_	Economy segment				
	Mass segment				
	Premium segment				
end of quarter I, 201_	Economy segment				
	Mass segment				
	Premium segment				
April , 201_	Economy segment				
	Mass segment				
	Premium segment				
May , 201_	Economy segment				
	Mass segment				
	Premium segment				
June , 201_	Economy segment				

	Mass segment		
	Premium segment		
end of quarter II, 201_	Economy segment		
	Mass segment		
	Premium segment		
	Economy segment		
	Mass segment		
	Premium segment		
end of quarter IV, 201_	Economy segment		
	Mass segment		
	Premium segment		

The higher absolute value of width of the price range would indicate availability of more favorable competitive conditions for variation when taking decisions on price formation.

- 1.1.5. When assessing factors of government regulation, it is necessary to consider the following measures of government institutions with respect to a particular product:
- regulation of the level of trade mark-up by setting the limit value or interval value;
  - administrative limits of price regulation;
  - control of regulation of purchase prices;
  - measures on control of inflation;
  - customs and tax conditions of price formation.
  - 1.2. Assessment of internal factors.
- 1.2.1. Evaluation of realized demand, product proposal and other internal factors is done based on data in Table 7.

Table 7

Analysis of factors of price formation by the commodity group for the particular company

Group of indices				n S		
	Index	Previous period	Reporting period	Reporting period in comparable prices	Rate of change, % act.	Rate of change, % comparable
Indices of	Turnover of the					
realized demand	commodity					
	group, thous. UAH.					
	Share of of commodity					

	group turnover in its total volume, %		
Indices of	Stocks of commodity		
product proposal	group, thous. UAH.		
	Turnover rate of goods,		
	days		
	Cost of goods sales, thous.		
	UAH.		
	Level of net cost, % of		
	turnover		
Other	Level of trade mark-up for		
	goods, % of self-cost		
	Level of operating		
	expenses, % of turnover		
	Operational margin, %		

1.2.2. Terms of price competition at the level of the enterprise are determined by the relative width of the price range and position in the market price range.

Relative width of the price range is defined as follows:

$$OIII_{u\partial n} = III_{u\partial n} : III_{pu\partial}$$
, (5)

where  $OIII_{u\partial n}$  is the relative width of the price range of the enterprise by product group at a certain time, share of the unit;

 $III_{u\partial n}$  is width of the price range for the enterprise by the product group at a certain moment of time, UAH.

Values of the relative width of the price range of the enterprise may range from 0 to 1.

The company for which  $OUI_{u\partial n}$  is approaching 1 has stronger competitive position by prices.

In order to determine the company's position based on a particular product group in the market price range, coefficients of its price maneuverability are calculated. These indicators characterize potential of increasing (decreasing) prices under current market conditions:

$$Keym = \frac{Llpmax - Llnmax}{IIIpyd} , \qquad (6)$$

Квим = 
$$\frac{Upmax - Unmax}{UIpu\partial}$$
, (6)  
Кним =  $\frac{Unmin - Upmin}{UIpu\partial}$ , (7)

where Keum is the coefficient of price manoeuvrability of the enterprise by the commodity group upon reaching the lower limit of the market price range, in decimal fraction;

*Кним* – coefficient of price maneuverability of the enterprise by the commodity group upon reaching the lower limit of market price range, in decimal fraction;

*Linmax, Linmin* are the maximum and minimum prices, respectively, for goods in the trade enterprise at a certain moment (for a definite period) of time, UAH.

Values of coefficients of price maneuverability range from 0 to 1. Approximation of  $K_{BUM}$  1 will testify the high potential of expanding the upper limit of the price range. Respectively, values of  $K_{HUM}$  close to 0 will mean unfavourable conditions for the price dumping.

2. At the second stage, the need for availability in the range of products of one group of different price categories is determined: «economical», «of mass» and «premium» segments. Such decisions are taken based on a survey of consumers.

The approximate profile of studying the attitude of buyers to the prices of a particular product is as follows.

## Dear Customer!

In order to determine consumers' attitude to our pricing policy, Our trade company, conducting a sample survey.

We sincerely thank you for your assistance.

- 1. Do you \_\_ buy this product at this store?
- always;
- sometimes;
- never.
- 2. Which brand of this product do you usually buy?
- 3. You buy this product in trade enterprise, since:
- there is always a wide range of choice;
- prices are acceptable;
- it is a convenient place of purchase.
- 4. Why do you buy just that product:
- I am satisfied with its quality for such price;
- I always buy only this product;
- the product I alway buy is not available;
- I decided to buy something different from what I usually buy
- 5. Within which price ranges do you buy this product?
- from 11 UAH to 14 UAH;
- from 14 UAH to 18 UAH;
- higher than 18 UAH.
- 6. What will you do, if the price of the brand you always buy is increased to unacceptable sizes?

- I'll buy a cheaper product in this store;
- I'll still buy it;
- I will start to buy in a different place
- 7. Your monthly income is:
- low;
- medium;
- high.
- 8. By occupation, you are:
- a student;
- a temporarily unemployed person;
- a housewife;
- a pensioner;
- a businessman;
- a worker;
- an employee.

To determine sampled population volume, the following formula is used:

$$n = 1 / (\Delta^2 + 1/N),$$
 (8)

where  $\Delta$  is permissible error of sampling;

n, N are sizes of total population and sampled population, respectively.

Decisions on price differentiation are taken based on results of the survey

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3. In the third stage, objectives of the price policy are determined based on differentiated price groups.

The preferred objective of the pricing policy for the goods:

- of the "economical" segment is ensuring break-even activity;
- of the «mass» segment is maximization of turnover;
- of the «premium» segment is maximization of current profit.
- 4. In the fourth stage, approaches to pricing (cost-is-no-object approach, value approach, competitive approach) and specific methods of pricing are determined.

Agreement of objectives of the pricing policy (step 3) with approaches and methods of their implementation is carried out in the following form (Table 8).

Table 8

Agreement of objectives of the pricing policy on the commodity group and available opportunities of price maneuvering of the trade enterprise

Group			
of goods	Economical	Mass	Premium
Elements of	segment	segment	segment
pricing policy			
Objectives of			
pricing policy			
Pricing approach			
Existing			
pricing potential			
Tools of pricing			
policy			
Measures of pricing			
policy			

- 5. In the fifth stage, specific levels of trade mark-ups for each commodity item in accordance with the selected method of price calculation.
- 6. The sixth stage should be devoted to continuous monitoring and adjustment of prices, if necessary (change in supply conditions, market conditions, etc.).