

**ANALYSIS OF PRODUCT PRICING BASED ON PRODUCT  
PARAMETERS AND CUSTOMER CHOICE**

*Klichev Bakhtiyor Pardayevich*

*Department of Finance and Accounting, Tashkent State  
University of Economics, e-mail: klichev.bakhtiyor@gmail.com,  
ORCID: 0000-0001-6938-7897, Tel: +99890 8650088.*

**Abstract** The efficiency of operational activities of business entities and the formation of positive financial results depends on the volume of production and sales. The increase in profit is inextricably linked to the cost of production and the price of the product.

The purpose of this article is to evaluate the newly developed products in business entities based on the technical and economic parameters of the product, the interests of consumers, their wishes, the market price of the reference product, and the conditions developed by the author. Integral methods, surveys, data grouping, and logical analysis methods were used in the calculations. When choosing a product, buyers choose more cost-effective products. Another feature of customer selection is that it compares the price of the product being purchased with the price of the best (reference) product on the market. The article provides analytical solutions for the calculation of the assessment based on these conditions. Comparing the technical and economic parameters of the product, the concept of pricing a new type of product is developed based on the indicators that customers pay the most attention to and the efficiency of use of the product is 5% higher than its price. In the calculations, only the technical and economic parameters of the product are obtained.

**Key words:** price of product, parameters (options) of product, technical parameters (options), economical parameters (options), pricing policy, formulation models of price

The efficiency of operational activities of business entities and the formation of positive financial results depend on the volume of production and sales. The increase in profit is inextricably linked to the cost of production and the price of the product.

Please imagine, if economists in any business knew exactly what the future holds, they would have made the perfect business decisions and maximized their profits. I will give an example to convey our idea more fully. For example, take the restaurant business,. If its owners knew exactly how many customers come every evening, as well as the number and type of meals they can order, they would have achieved the minimum of costs, the maximum of profit.

Today, cost optimization in all enterprises is made on the basis of approximate calculations in relation to the volume of production and sales. In doing so, the approximate calculations are based on statistical data and experience from the previous period. While economic analysis in enterprises cannot replace accurate data, it is very useful in finding answers to questions about various management decisions and their consequences. One of the most important questions we need to answer when running a business is “How many products can we sell?”. Of course, during the the answering to this question, determines the volume of production of the product, which in turn determines the amount of costs incurred.

The above-mentioned model of analysis of the operational activities of enterprises is called "Cost-volume-profit" (CVP-analysis) analysis. CVP analysis is primarily aimed at assessing the impact of operating activities on an entity's financial results. The reason we focus solely on sales volume is that at the time the product is sold, the price of the product will be variable, although materials and labor costs are usually known with a certain degree of accuracy. Therefore, product profitability in the short term often depends on price.

There are many theories and models of price formation in product sales volume analysis, and manufacturers can apply the necessary methods in pricing based on industry characteristics, product range, market structure, and other indicators. We will focus on some of these models and theories.

- 1) **Model by Bertrand.**
- 2) **Model by Nash**
- 3) **Cost approach model.** Enterprise costs + corporate profits at a certain percentage = Price
- 4) **The model of value theory.** Enterprise costs + corporate profits at a certain percentage + customer interests and achievement = Price

In developed Western countries, one of the most important priorities in the field of marketing is to conduct research in the formation of prices, taking into account the interests of consumers. Among the economists who have conducted successful theoretical research in this area are Thomas R., Bernstein L.A. and Savitskaya G.V. such as scientists.

The buyer compares the price of each new product with the price of this type of reference product on the market. The first condition of the model we offer also depends on this factor: the price of the product we produce should never be higher than the price of the reference product. Otherwise, the buyer will definitely choose a product that has been consumed in advance and is considered a benchmark in the market. Once we ensure price uniformity, our assumption that the previously mentioned product should have a certain (higher than 1) efficiency relative to another product justifies itself (Klichev, 2014). That is, to attract a customer to a new product being manufactured or to convince a customer, our product must have an efficiency of at least 5% relative to the reference product.

It is advisable to approach the formation of product prices from the consumer's point of view (Klichev, Choriev, 2021). According to the consumer, the purchased product must meet the following conditions:

$$\frac{\text{Product consumption efficiency}}{\text{Price of product}} > 1 \text{ or}$$

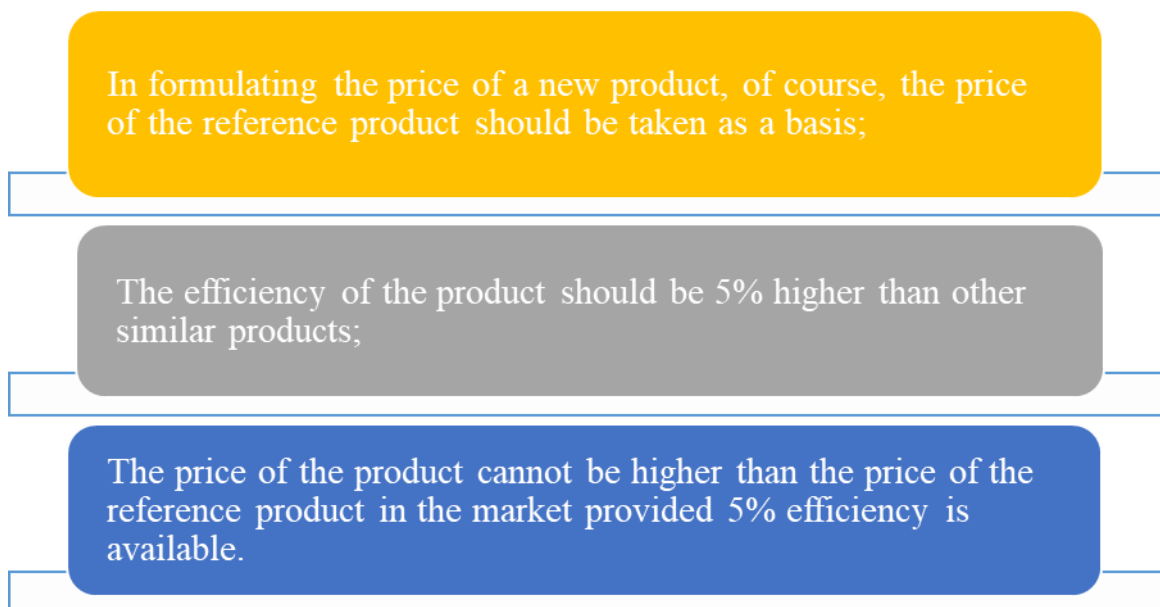
$$\text{Product consumption efficiency} > \text{Price of product}$$

At first glance, this approach may be understandable to all, but it is a bit of a complicated process to express the efficiency of using a product in exact numbers to make accurate calculations.

According to the manufacturer, the efficiency of use of the product depends on its technical parameters. But in the opinion of the consumer, the efficiency of using the product should consist of the following components:

- one of the technical parameters of the purchased product should be a priority (at the consumer's choice);
- the priority indicator should not be less than the same indicator of the reference (best on the market) product;
- the price of the product must be lower than the price of the reference product.

Summarizing the above points, the following conditions must be met for the price of the product to be formed as a price in the market:



**Figure 1. Conditions to be met for the formation of product prices in the proposed model.**

Based on the above conditions, we must consider the economic and technical parameters of the product in order to form an estimate using the proposed method. In general, the parameters of the product are many (Table 1), which parameter the buyer prefers depends on his socio-economic status. In countries with high living standards and incomes, the priority in the procurement process is given to the technical, ergonomic and aesthetic parameters of the product, while in countries with relatively low living standards and incomes, the priority is given to economic parameters.

**Table 1:** Parameters of product

Parameters	Essence
<b>Technical parameters</b>	The composition of the product, the technical and technological level of its production and use, as well as the service life are considered.
<b>Economic parameters</b>	The price of the product, the level of service for the product, its volume and quality are considered

---

<b>Ergonomic parameters</b>	The suitability, convenience and usefulness of the use and consumption of the product for the human body will be considered
<b>Aesthetic parameters</b>	The appearance of the product, its suitability to the taste of the buyer, the degree of completeness of the product are considered
<b>Normative parameters</b>	The degree to which the product meets applicable international regulatory parameters and standards (ISO) will be considered

---

In addition to increasing the company's profitability, an effective valuation policy has a positive impact on the growth of its business activity indicators, including quantitative and qualitative indicators of the company's operational efficiency. The importance of free evaluation and assessment of business activity of the organization in the context of high competition is of particular importance in the study of its financial condition, the formation of a strategic plan and development prospects. (Klichev, Tulaev 2021)

According to marketing research, 60-70% of consumers choose depending on the technical and economic parameters of the product. That is, the efficiency of using the product should be higher than the price of the product. Therefore, in our proposed method, the technical and economic parameters are studied, and according to the degree of compliance of the product with these parameters, the ratio of new product to standard product, group and integral indicators are determined in the price formation process.

The ratio of a new product to a reference product (g) is determined by the ratio of the technical or economic functions of the product to the same function of the reference product:

$$g = \frac{F_0}{F_1} * 100$$

*Here are:*

$g$  - the ratio of the new product to the reference product;

$F_0$  - parameters of new product;

$F_1$  - parameters of reference product.

The overall indicator ( $G$ ) is the product of the ratio of the new product to the reference product ( $g$ ) and the customer choice indicators ( $a$ ).

$$G = g * a$$

Customer choice indicators ( $a$ ) are the ratio of the total useful workload of a product (100% or 1 coefficient) distributed over parameter indicators. That is, the consumer determines which function of the product he is buying is the main one for him and gives a greater coefficient to this function, while the remaining functions are given a coefficient in the same way. This process can be done by conducting a survey among the population in the centers and markets where home appliances are sold (Table 2).

**Table 2:** The recommended survey form in determining the indicators of customer choice

---

*Dear consumer!!!*

*Please take part in our survey.*

*Remember, your opinion important for us in*

---

*providing the the increase of product  
competitiveness based on consumer interests and  
requirements as well as the optimality between  
product quality and price*

<b>1. Which of the following technical parameters is important to you when you buy a refrigerator</b>		<b>2. Which of the following economic parameters is important to you when you buy a refrigerator</b>	
Full size	<input type="checkbox"/>	Price	<input type="checkbox"/>
Total capacity	<input type="checkbox"/>	Warranty service life	<input type="checkbox"/>
Freezer	<input type="checkbox"/>	Daily electricity consumption	<input type="checkbox"/>
Freezing capacity level	<input type="checkbox"/>		
Service life	<input type="checkbox"/>		
Maxium temprature of freezer, °C	<input type="checkbox"/>		

**THANK YOU !!!**

**For participating in the survey**

According to the results of a survey conducted in April 2022 in the shopping center of the private enterprise "Tashkent Trade Center" (formerly "Abu Sahiy") in Chilanzar district of Tashkent with the proposed form (Table 3).



**Table 3:** Results of a survey conducted to determine the indicators of customer choice

Indicators	Out of every 100 people	<i>a</i>
<i>According to technical parameters they consider important:</i>		
<b>1. In full size</b>	20 people	<b>0,20</b>
<b>2. Capacity of general camera</b>	22 people	<b>0,22</b>
<b>3. On the freezer</b>	20 people	<b>0,2</b>
<b>4. In terms of freezing capacity</b>	18 people	<b>0,18</b>
<b>5. In terms of service life</b>	12 people	<b>0,12</b>
<b>6. According to the temperature of the freezer</b>	8 people	<b>0,08</b>
<i>According to economical parameters they consider important:</i>		
<b>1. price</b>	50 people	<b>0,5</b>
<b>2. According to the term of the guaranteed service</b>	25 people	<b>0,25</b>
<b>3. In terms of daily electricity consumption</b>	25 people	<b>0,25</b>

Based on the results of the survey, companies can also determine which parameters they will prioritize in the implementation of structural changes in future products. If we look at the results of the survey on economic parameters, 50% of consumers consider the price category important for themselves. This fact once again proves the relevance of research on product pricing.

Today, when consumer interests take precedence, there are several shortcomings in pricing based on the models mentioned in the introductory part of our article. In particular, Bertrand's two-way game model, Nash's fair distribution model, and cost approach models are theoretical solutions, and failure to take into account the wishes, desires, and interests of buyers may lead to the price not being accepted by the buyer in the market..

Although the value theory of pricing assumes that the interests of the consumer should be taken into account, the lack of theoretical or practical suggestions on how to implement it is recognized as a shortcoming of this method.

In the practice of Uzbekistan we can observe almost the same approach to product pricing, namely:

Product price = Cost + a certain percentage of company profit

The main disadvantage of this method is that the pricing does not take into account such factors as the price of the competing (or benchmark) product and the choice of the buyer. In our opinion, the application of this method in pricing may affect the inability of the product to compete in the market and to be left out of the buyer's choice.

Owing to marketing globalization and increasing technological changes, the number of competitors and new sources of value for customers has increased which not necessarily led to rises in profit for the producers (Nagle, & Müller, 2017).

In today's modern economy, Cooper and others (Cooper, R. 2018) argue that production and its structure are the only tools that lead to the success or failure of pricing. In support of this idea, we can emphasize that the leaders of international organizations and concerns should not take price decisions as a means of increasing profits (Klichev, 2022).

Manufacturers and buyers have different attitudes towards product prices. If the price of the product is set by the manufacturer with a maximum limit that increases the profit, it is natural for the buyer to consider the price of the product as the minimum cost. In their work, R. Thomas and L.A. Bernstein argue that a price formed on the condition that a product has a certain efficiency relative to another product can be formed as a price in the market. However, neither these scientists nor the theories used in the formulation of the assessment presented in the introductory part of our article provide a model of assessment using exact calculations.

From the above calculations, it is clear that if we set a price of \$ 550.8 for our new product of brand "A", we will fully meet the following conditions:

- The price of the reference product was taken as the basis for the formation of the price for the new product.
- 5% efficiency of our new product compared to the standard product;
- In addition to having a 5% efficiency, our new product was priced at \$ 49.2 less than the standard product price on the market.

In general, we can say that the price formed by this method, which we offer, will undoubtedly be accepted by the buyer in the market. Businesses may set a higher price cap in order to increase profits in the future. This requires the necessary analytical work on economic parameters (for example, by extending the warranty service life of a new product, it is possible to increase the price by a certain amount, while maintaining 5% efficiency over the reference product).

### **References:**

1. Қличев, Б. П. (2022). Маҳсулот сотиш ҳажми таҳлилини такомиллаштириш масалалари. *Science and Education*, 3(5), 1719-1728. <https://openscience.uz/index.php/sciedu/article/view/364>
2. Nagle, T. T., & Müller, G. (2017). The strategy and tactics of

pricing: A guide to growing more profitably. Routledge.  
<https://doi.org/10.4324/9781315185309>

3. Van der Rest, J. P., Roper, A., & Wang, X. L. (2018). Why is a change of company pricing policy so hard to implement?. *International Journal of Hospitality Management*, 69, 30-40.  
<https://doi.org/10.1016/j.ijhm.2017.10.010>

4. Borio, C., Gambacorta, L., & Hofmann, B. (2017). The influence of monetary policy on bank profitability. *International Finance*, 20(1), 48-63.  
<https://doi.org/10.1111/infi.12104>

5. Modak, N. M., Panda, S., & Sana, S. S. (2016). Pricing policy and coordination for a distribution channel with manufacturer suggested retail price. *International Journal of Systems Science: Operations & Logistics*, 3(2), 92-101.  
<https://doi.org/10.1080/23302674.2015.1053828>

6. Қличев Б.П. (2014). Бошқарув ҳисобида баҳо шакллантиришни такомиллаштириш масалалари. Тошкент молия институти. “Молия” илмий журнали. 2014 йил 5-сон, 10-15 бетлар. ISSN: 2010-9601

7. Klichev, B.P., Choriev, I. X. (2021). The Issues Of Business Activity Organization In Uzbekistan. *Turkish Online Journal of Qualitative Inquiry (TOJQI)*. Volume 12, Issue 7, July 2021: 4587- 4593.-  
URL:<https://www.tojqi.net/index.php/journal/article/view/4494>

8. Klichev, B.P., Tulaev, M.S. (2021). Issues of development of the analysis of business activity in joint-stock companies of Uzbekistan. *ACADEMICIA: An International Multidisciplinary Research Journal*. ISSN: 2249-7137 Vol. 11, Issue 11, November 2021, 584-591.  
<https://doi.org/10.5958/2249-7137.2021.02539.8>

9. Имомкулов, Т., Латипова, Ш. М., & Ходжимамедов, А. А. (2018). Проблемы реформирования деятельности инновационно-ориентированных фермерских хозяйств. In *Направления повышения стратегической конкурентоспособности аграрного сектора экономики* (pp. 277-282). <https://elibrary.ru/item.asp?id=36364226>

10. Савицкая, Г. В. (2017). *Экономический анализ*. 14-е изд., перераб. и доп. М.: ИНФРА-М.

11. Cooper, R., Hartley, K., & Harvey, C. R. M. (2018). *Export performance and the pressure of demand: a study of firms*. Routledge.  
<https://doi.org/10.4324/9780203703090>

12. Қличев Б.П. (2022). КРІ тизими асосида моддий рағбатлантириш масалалари таҳлили. *Архив научных исследований*, 2(1).  
извлечено от <http://journal.tsue.uz/index.php/archive/article/view/1761>

13. Imomkulov, T. B. (2020). *Financial Aspects of Selection of*

Investment Projects by Enterprises in Developing Market Conditions. European Journal of Business and Management, 12(5), 51-54.  
<https://core.ac.uk/download/pdf/304991376.pdf>

14. Tolliboevich Absalamov, A., Odilovich Xudoyorov, O., & Umarovich Kholdorov, S. (2021). Important Aspects Related to Foreign Exchange Operations of Commercial Banks. In The 5th International Conference on Future Networks & Distributed Systems (pp. 693-697).  
<https://dl.acm.org/doi/abs/10.1145/3508072.3508208>

15. Khudoyorov Oybek Odilovich (2020). Solution of problems on the development of banks' off-balance operations, SAARJ Journal on Banking & Insurance Research, 2020, Systems (pp. 44-48).  
<https://www.indianjournals.com/ijor.aspx?target=ijor:sjbir&volume=9&issue=3&article=004>

16. O. Khudoyorov, N Ernazarov (2020). Operating banks operations with foreign options and futures of foreign banks: Foreign experiences and their features - Journal of Critical Reviews,  
<https://www.elibrary.ru/item.asp?id=43264712>

17. Adashaliev, B.A, Xashimov, B. A. (2018). Foreign experience of development of the regional export potential. Theoretical & Applied Science, (11), 216-222. <https://www.elibrary.ru/item.asp?id=36586989>

18. Назарова, М. Н. (2022). Ўзбекистон Республикасида нобанк кредит ташкилотларининг ҳуқуқий асослари ва уларнинг амалдаги фаолияти. Science and Education, 3(6), 1244-1256. Retrieved from <https://opscience.uz/index.php/sciedu/article/view/3941>

19. O.Xudoyorov (2017)Importance of credit risk management in banks. Экономика и бизнес: теория и практика.  
<https://cyberleninka.ru/article/n/importance-of-credit-risk-management-in-banks>

20. Назарова, М. (2022). ПРАВОВЫЕ ОСНОВЫ МИКРОКРЕДИТНЫХ ОРГАНИЗАЦИЙ В РЕСПУБЛИКЕ УЗБЕКИСТАН И АНАЛИЗ ИХ ТЕКУЩЕГО СОСТОЯНИЯ. Экономика и образование, 23(4), 73–80. извлечено от <https://cedr.tsue.uz/index.php/journal/article/view/566>