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Internal Factors Underlying the Price in the Marketing

Toader GHERASIM
George Bacovia University in Bacău, ROMANIA
toader.gherasim@ugb.ro

Abstract: *When within the market there is a very large number of sellers and buyers, the individual company is unable to influence any market price, the global demand resulting from the confrontation with the global supply of product or service in which it specializes. Therefore the problem of funding prices by the marketing specialists is no longer on demand, these prices appearing as something given. The products being very homogeneous in such circumstances, trying to sell at a higher price than the market price is impossible, because the consumers will immediately go towards the competitors' offer. At the same time, the initiative to lower price is equivalent to giving up some of the revenue and profit potential, which, of course, seems absurd (although sometimes this way sales can be hasty and even increase). However, opportunities to work with the company marketing variable are, if not zero, very small. Therefore, only the other stations (monopoly, duopoly or oligopoly) company has to do with the actual strategy on which it has based price taking into account a range of internal and external factors.*
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Introduction

From the category of internal factors underlying the price one can mention: production costs, target profit and company marketing objectives.

1. The Costs and the Profit Aimed by the Company

For producers of goods, the starting point in assessing price they propose (or impose) to buyers is the production cost.

The causal ratio between costs and prices, as their economic nature almost identical (both expressing the consumption of social work) imprinted to costs the pivotal quality of evaluating prices. They give the *objective limit* of prices level below which producers' activity becomes bankrupt.

Competitive market economy cost-price correlation does not occur directly, but through *supply*.

As an expression value of the balance between supply and demand, prices do not always cover all costs of production, where some of the costs can not be recovered through prices being relatively frequent. As long as market prices are subject to variations in demand around the offer, the same costs can often correspond to different prices. The supply is not the only element that mediates the relationship between costs and prices. It will be joined by other processes or economic phenomena not reflected directly in costs and, especially, in prices, such as closeness of products and preference beneficiaries, obsolescence of products, buyers income etc.

As a principle, in funding prices it is necessary to start from the *average production costs,* which are considered *normal costs.*

To arrive at average costs it is necessary to consider the *production volume*, this one having a double role in sizing costs: the role of determining the level of individual unit costs and the role of individual cost weighting factor to obtain the average cost. This dual role requires a very careful choice of output determined according to average cost. Such a choice is very important because output varies in relation to many factors influence the determination will be made but on a single level. Generally, this level is either the corresponding maximum possible degree of product use or the use for a degree considered normal.

Production costs are subjected to the action of various factors, they undergoing a series of changes over time. Therefore, the literature speaks of a time profile of the economic cost of their products [3, 52-66]. In principle, the costs of new products are pre-calculated with a prospective character, giving money terms of consumption of resources which will take place in a future stage. The prices that integrate structural aspect have the same character. These prices are not based so the costs of the drafting ante calculations are those required when marketing goods. It follows that economic time cost is dynamic, as defined by time to achieve the optimal level of cost per unit of product.

As time passes, the costs level is included in *a growth trend*, exceeding the appropriate economic time level. This is true but only while maintaining the same technical basis of production when costs going down to the lowest level as the production goes up to the maximum level determined by the operation of companies to design parameters (a situation which is required to be made permanent). To raise production above that level due to increased demand will require a new generated production capacity or the overloading of the existing capacity. In the first case, whether the technical level of production remains unchanged as long as there are made permanent conditions to achieve minimum costs, costs remain constant over time.

As long as the technical and organizational skills and the production do not change, sustaining the conditions for achieving minimum cost is more difficult (even impossible) to achieve, the action of increasing costs of material price increases and also the wage rates, the obsolescence and physical assets etc.

As time passes, technical and organizational progress and raising the qualification of a trend print jobs to reduce costs, they can beat the increase, the result being a long-term general trend of decreasing average costs.

Prices on account of the scientific production costs thus requires careful analysis of the development costs in the short and long term respectively positive and negative influences on endogenous and exogenous factors had on costs. Prove very useful to have this opportunity cost parametric and cost diagrams (diagrams representing the evolution of costs according to the main parameters of the products).

To ensure recovery of costs through prices and obtain a normal profit when entrepreneurs operate properly, it is necessary that both prices and costs that are established be considered closely related to trends in demand and offer.

A good knowledge of costs in terms of level, structure and dynamics, based on a thorough analysis of the correlations that exist between them and their influence factors is crucial to base prices. The action of these factors often causes changes in costs that are required to update their operations, following to which may appear other prices [1, 181-183].

Updating cost calculations is necessary especially when practicing interim prices, based on pre-calculated costs and in all other cases the changes are the rules of consumer prices or rates, charges that the financial regulations.

To achieve its objectives on profits, the firm should be able to sell their goods at prices not to be below cost. Therefore, costs are a key to substantiate decisions on prices. More specifically, costs mark *the minimum price*, below which the company is at risk of bankruptcy.

Besides cost, when the activities take place under natural conditions, normal technical and organizational skill, different forms of **income** are the main structural elements of the price. But unlike the costs, which are elements a priori, before the price data to express the fullness of their duties as net income and prices, positive results are elements of the production processes, their size being derived from the size of price. While costs are linked by excellent manufacturing processes, prices exceed this stage of reproduction, sizes benefit are influenced by the way in which the other stages of re - production, such as exchange and even consumption.

Unlike costs, which appear in the price level decisions defined in advance, **profit** is a structural element whose price determination becomes a very complex operation. In fact, profit is the core activity evaluation of the decision and the price of the tendered. The direct link between profits and prices makes their size to achieve simultaneously, starting from the study of the action of the main factors.

In order that a company gains ***maximum profit*** in the long run, *price (p)* should be set at marginal cost *(C ')*.

In price theory, the concept of normal profit is used with general purpose standard as to determinate a priori, even before the design and manufacture product whose price is to establish in its base. It corresponds to natural conditions, technical, organizational and skill in which production and reproduction of normal goods.

One of the *first* forms that appeared normal profit is derived from what Thomas Aquinas called the *correct price*, consisting of costs and a gain (benefit) determined according to the requirements of social justice considered immanent (under which income is redistributed the price according to certain moral requirements of the class).

A *second* concept from which the normal profit is derived is that of fair *prices* in international economic relations, formed under the action of economic laws as they stand, unaffected by extra-economic factors or by the well-known price scissors.

The *third* meaning given to the concept of normal profit is the *statistical* one, where it appears as a *medium* measure, central or adjusted of the business favorable results obtained on groups of enterprises, branches and the national economy as a whole, the work being conducted under the usual conditions are considered to be normal.
Evaluation of normal profit with which science is based pricing decisions is a difficult operation. For this purpose use a set of *standards* or guidelines, such as: the interest rate, the average efficiency of investment, overall profitability of capital, etc.

The *interest rate* was suggested as a standard of normal profit by D. Ricardo, who noted that when "market interest rate could be accurately known for a long time, I have a fair enough criterion by which to judge development profits " [5, 221]. Usually, interest rate savings banks deposits indefinitely mark minimum profit level. Long term interest rate equals the growth rate (all long), under equilibrium conditions.

Usually, interest rate savings banks deposits indefinitely mark minimum profit level. On the long run, the interest rate equals the *economic growth rate* (also on the long run), under equilibrium conditions. There is also the size of the profit rate trend according to *the time of crediting* (t), considering it equal to the ratio $\frac{1}{t}$ (the inverse term credit). For example, if the average term of loan is 5 years, normal return to the national economy will be considered the: $\frac{1}{5}\ 100 \ = \ 20\%$.
As long as the interest rate shall be set by administrative decisions, its use in sizing the normal profit is economically justified. It does not reflect, however, higher than approximations, capital efficiency.

The *average level of efficiency of investments* is considered a standard assessment more representative than the normal profit rate. It reflects the amount of savings resulting from productive use of funds, but their savings. Seen throughout the economy, the efficiency of investment is presented as unit size, normal, with the equivalent quality of the overall profitability of production funds, which can be used to estimate normal profit.

As a principle, the size of normal profit p_{f_n}, as a structural element of production costs, is determined, in this case, the relationship:

$$p_{f_n} = e_n \, i_p ,$$

where e_n - the normal level of efficiency investments as a ratio between net savings to work a whole lifetime investment of fixed assets where the respective investment is materializing, i_p – is the investment per unit of product (specific investment).

How the recovery period *(t)* of investments from profits due to reduced costs (or labor saving) is inversely proportional to income, its inverse ($\frac{1}{t}$) can become a standard rate of return which, when judged in the national economy as a medium is used to assess normal profit.

The fact that profit is equivalent to the cost savings resulting from the investment process is a limit to how to evaluate normal profit by this procedure.

Evaluation of normal profit may involve a number of *endogenous criteria* such as *market mechanism.*

Term money market profit becomes visible on the market, here taking place the pricing process. The balance between supply and demand plays a role in this process. Therefore, normal profit sizing demands a thorough knowledge of demand, buyers income and the points in which the balance between supply and demand is realized. These points mark the equilibrium price. In this context, normal profit is the profit included in the prices of goods sold when supply equals demand. Any disruption of supply-demand balance will result in competitive economy in which prices move freely, with deviation from the real profit to the normal one.

Given that, however deep the prospect studies are, it remains largely unknown, for new products which are to be launched on the market there is quite difficult to solve problem of sizing the normal profit according to the demand-supply ratio.
From the total mass of the economic effects, profit falls in first place by its power of suggestion, being a primary *net income*.

Launching the production of a product should be estimated only after leverage resources to be consumed to produce it (the inputs). This requires some benchmarks. One of them could be the *profit level of the similar products prices*, which is a correlated particular item. In order that the starting point be stronger, it is recommended the use of a correlation with a general character, such as the overall profit of the national economy, which was first an approximation of the new product profit (i.e. *profit of supply*) that because it reflects the current stage of development of production and the average recovery of inputs that can be accepted as a normal benefit. The size is fully measurable, determining the difference between gross national product (sum of commodity prices) and total production costs caused by gross domestic product.

In the process of pricing, normal profit comes first under the form of relative values, i.e. below the *normal rate of return*, which expresses the ratio between total gross benefits of the national economy and total production costs at the same level. It is the result of the action of factors that manifest in the internal market.

The *global market* provides only the general framework for creating prices of new products. These ones are finalized in the *products market* and therefore within the structure of these prices it is not included the appropriate profit of the rate of return at the macroeconomic level. The relative autonomy of product market in the global market causes some deviation from normal return product profitability. In these circumstances, the profit to be included in the price structure of the new products when taking decisions concerning price, will be *the normal profit for the market products.*

From the above mentioned statements it follows that the normal profit rate, reflecting the relationship between effect size and cost, the course provides knowledge of economic life, is an indirect form of manifestation of *market transparency.*

Product market is the place where the show two broad options: 1) the resources necessary for production of certain groups of goods and 2) the conduct of income defining the solvent demand of such products. The market fosters bidders (producers) of goods in optimizing supply by increasing use of the entrances, since any reduction in costs is equated with higher returns. Therefore, besides the estimated profit based upon an average rate of return at the level of national economy, it appears a second element of approximation of profit that is included in the price of new products concretized in the amount of benefits resulting from reduced average costs of the product market, amount made possible by the direct participation of producers to a greater use of the inputs in the product market.

As already mentioned, the costs depending on which are based prices are those appropriate for the use of the production capacity to perform as designed. As a result, normal profit will be determined in relation to the level of costs. The fact that profit which is included in the price is minimum at the average, minimum costs (which leads to minimum production price), is disadvantageous for manufacturers, because the mass corresponding to the total profit in this situation will be minimal, but the maximum output reaching that point, maximum level. The secret of the total, maximum profit does lie in the maximization of price which would discourage the demand until canceling it totally, but maximizing the volume of sales which is achieved by minimizing price.

Theory and practice price substantiation operate with several ***types of profit margins***. The best known of these are based on total costs, turnover or takes the form of multipliers. In *absolute values*, as *commercial or gross margins* for the entire production and per unit of product, margins are calculated as follows:

$$m = p - c$$

$$M = V - C$$

where *m, M* – is the unitary gross margin, respectively global; *p* - sale cost; *c* - unitary cost; *V* - the turnover; *C* – total cost.

In *relative sizes* there are expressed the following types of global and unitary margins:

- rate margin costs (m), calculated with one of the relations:

$$m = \frac{M}{C} = \frac{V - C}{C}; \qquad m = \frac{m}{c} = \frac{p - c}{p};$$

- *margin rate based upon the turnover* ($m_{p'}$), calculated as follows:

$$m' = \frac{M}{V} = \frac{V - C}{V}; \qquad m' = \frac{m}{p} = \frac{p - c}{p};$$

- *multiplier based on costs* (k_m), which size is established with one of the relations:

$$k_m = \frac{V}{C}; \qquad k_m = \frac{p}{c}.$$

It is not difficult to see that the overall margin can be determined as the product of margin and volume production unit or as a sum of unit margins.

Starting from the first calculation method to obtain *normal profit* (average*), the producer price p* should result from the relationship:

$$p = c(1 + m),$$

where: m - the relative margin of the normal profit (expression of the ratio between total profit and the capital that generated it) or average profit rate (resulting from the action of the law of equalizing profit rate - that, as a result of competition and the migration of capital from a sector to another, long-term, profit per unit of capital will be the same regardless of the activity in which it is invested).

To make an *usual profit* (positive), the company must sell products at prices higher than average costs.

Once the merchandise is in the distribution network, traders added to its price of production other items.

Producer price (p) is practiced only for *direct distribution* or for sale of the goods to the first middleman.

In the case of indirect distribution, we will encounter two types of prices: one of the other wholesalers and retailers.

Wholesaler price (p_a) will have the following structure:

$$p_a = p(1 + a_a) \quad \text{or} \quad p_a = c(1 + m)(1 + a_a)$$

where: - a_a addition (commission or rebate) of commercial claimed by the wholesaler *a* (through which he provides recovery of expenses "production", promotion and distribution that makes them and achieve their profit).

When the number of wholesalers is higher, prices p_a charged by the final wholesaler (second, third, etc.) will also include the wholesalers involved in the same product distribution. *Retailer price* (p_d) is the expression of the relationship:

$$p_d = p_a(1 + a_d),$$

where: a_d - surplus practiced by retailer.

Bringing together the three formulas, we obtain the following analytical relation for calculating the retail price of the product (based on costs) [2, 184-187]:

$$p_d = c(1 + m)(1 + a_a)(1 + a_d)$$

In the level of costs there are reflected not only the consumptions of resources occasioned by the actual production of goods, but also those supposed to do the promotion and distribution (including those involved in the guarantee and after-sales service). Therefore, the correlation costs - prices is reflected in all activities of the marketing mix. Therefore, in most approaches, prices appear as a result of these activities. There are also situations where firms (especially those who market and position products in the price) use the technique called *reverse cost calculation*, which involves *reverse flow design* - production - promotion - distribution - cost - price. So, starting from the price at which it must be sold (in the most favorable conditions) product, all other operations are designed and are undergone in such a way as they can lead to put them in a cost that allowing to practice that price .

Although very useful for entrepreneurs, funding prices depending on costs is not far enough, it had to be supplemented with other optical elements related to marketing the company.

2. Marketing Objective of the Firm

Firm strategies on prices are very closely related to any other company marketing mix strategies, which may precede or succeed. In cases where the central element of placing the company is product quality, cost justification strategies will start from the strategies already elaborated on the product, promotion and distribution. If the key element for positioning is the price of the product, pricing strategies will be developed before all other marketing strategies.

The most important marketing objectives to be considered when pricing strategies are established by a firm are: survival, current profit maximization, maximizing market share, market domination by product quality, prevent competition, maintaining the fidelity and the support of distributors, etc. [4, 741-743].

1. When market competition is very intense, the tastes and desires of customers are changing rapidly, while production capacity is far in excess, when demand is declining or when it's technical and economic strength is low, etc.., *survival* is the main marketing objective proposed by any company. The main way you can work towards this is *to reduce prices*, even if in this way, on *short-term,* profit is sacrificed (or, anyway, left in the background).

2. If the survival is the more modest objective, *profit maximization* is the most ambitious goal of any company. On short-term (as well as on long-term also), under perfect competition, it is possible to achieve by bringing the individual offer (and reducing costs) to the point where marginal cost tends to equal the market price. In other circumstances, the company is able to influence market prices, they also require strictly correlated with the demand and marginal cost levels.

Profit margin that ensures the maximization of the total profit of the firm can be sized using the *method based on elasticity of demand*. This is based on equilibrium theory, starting from the equality:

$$V' = C'$$

(where: V' - marginal income and C' - marginal cost), and also upon the relation:

$$V' = p(1 + \frac{1}{e})$$

where: *e* - the elasticity of the demand balanced with the goods price.

Long-term equilibrium requires equality between marginal cost and average cost. Under such equilibrium the following relationship is also valid:

$$c_v = p(1 + \frac{1}{e}) = p(1 + \frac{e+1}{e}).$$

Replacing within the relation $p = c_v(1 + m)$ the variable *p* cu with its calculation expression, we get the relation:

$$c_v = c_v(1+m)(\frac{e+1}{e}) \quad \text{or} \quad (1+m)(\frac{e+1}{e}) = 1,$$

from where one can deduct that

$$\frac{1}{1+m} = \frac{e+1}{e}$$

and that

$$e = \frac{1+m}{m}$$

From the last equation it results the following relation for margin calculation:

$$m = -\frac{1}{e+1},$$

this applying then to the average variable cost (considered equal to marginal) to estimate the selling price [1, 181-183].

In most cases, prices are not based by targeting the maximum profit, but to a *normal one* or, in general, to a *fixed* one (somehow).

3. Maximizing market share is often a more important goal than maximizing current profits, based on *relatively low prices* (in order to encourage demand). Implicitly, maximizing market share involves *maximizing sales volume*.

Starting from a minimum limit of the profit (P_{min}), maximizing total revenue can be based on a function such as:

$$V = p\,Q,$$

respecting the following restriction regarding the minimum profit:

$$p\,Q - C > P_{min},$$

The function object and the restriction can combine in a function of the type Laplace of the kind:

$$L = p\,Q + \lambda(pQ - C - P_{min}),$$

where λ -Lagrange multiplier

In order to determine price which maximizes the value of this function the partial derivates of this ratio are calculated with Q and λ, which then annul themselves, arriving thus to the system of equations:

$$\frac{\delta L}{\delta Q} = \mathrm{p} + \mathrm{Q}\ \frac{\delta p}{\delta Q} + \lambda(p + Q\frac{\delta p}{\delta Q} - C') = 0;$$

$$\frac{\delta L}{\delta \lambda} = pQ - C - P_{\min} = 0.$$

Because

$$p + \frac{\delta p}{\delta Q} Q = V',$$

from the first it results that:

$$V' + \lambda\ (V' - C') = 0;$$
$$V' + \lambda V' = \lambda C';$$
$$C' = V'(1 + \frac{1}{\lambda}).$$

Because $\lambda < 0$, means that the optimal production can be realized with a marginal cost greater than the marginal income, production and sales being thus bigger, and the price lower than when the company's objective is maximizing the total profit.

When the demand function, respectively the function p is impossible to be estimated, we can start from a relatively high price, which then decreases successively until it reaches a volume of sales that total profit equals P_{min}. This equality marks the price for which the sales volume is maxim.

4. Maximizing the company's penetration rate on the market is a target very closely related to the previous one, being able to reach it firstly by charging *penetration prices*, which often are at a low-level only during the period where penetration is the prime concern of the company. The success of such an action is dependent on a number of conditions such as: a) sufficient sensitivity to changes in market prices, b) an elasticity of unit costs of production and sales in relation to output (leading to the accelerated reduction of them while production is increasing), c) a weak possibility of response from the part of possibility competitors (these ones having no possibility to reduce, their prices, too) etc.

5. Market dominance by product quality is another very demanding marketing target of the company, being able to be supported by *high levels of prices*, welcome by customers with high demands on comfort and quality of other quality based features. If: a) the application is sensitive to innovation, b) scale production advantages are not obvious; c) high prices are not approved by competitors; d) for consumers, quality is more important than price, etc.., the company can fix as main objective even the obtaining *the quality leader status*, which can be achieved, among others, by charging „skimming" prices, by which it will be able to exploit all the financial benefits (and others) of the superiority of its products compared to the competition.

6. Preventing entry of competitors on the market is an important objective of firms with monopoly or oligopoly status, and this could be achieved by charging *low prices.*

7. Maintaining loyalty and the support of distributors and other middlemen is another marketing objective requiring the setting of *low prices* for the sale of products that offer them the possibility of receipt of commissions or mark-ups stimulus [2, 187-189].

Conclusion

Since the price implications on the mechanism of firms and markets functioning are very complex, there is virtually no marketing purpose to be disregarded when making the basis for decisions on prices.

References

[1] Gherasim, T., Carauş, M., (1998), *Preţuri şi tarife*, Polygraph editorial firm „Central Printing House, ”Universitas” Publishing - House, Chisinău
[2] Gherasim, T., Gherasim, D., (1999), *Marketing turistic*, Economic Publishing - House, Bucharest
[3] Ionete, C.: *Preţuri şi tarife*, (1983), Didactic and Pedagogic Publishing - House, Bucharest
[4] Kotler, Ph. ş.a., *Principiile marketingului*, (1998), Teora Publishing - House, Bucharest
[5] Ricardo, D., *Opere alese*, (1959), Romania Popular Republic Academy Publishing - House , Bucharest

Supplementary recommended readings

Manole, V., Stoian, M., Ion, R. A., (2011), *Marketing*, ASE Publishing - House, Bucharest
Munteanu, V. A.: *Marketing modern*, (2011), SEDCOM Libris Publishing - House, Iasi