PRICING AND EQUILIBRIUM CONDITIONS FOR THE MARKET OF PRODUCTION FACTORS IN THE PERFECT COMPETITION

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Abstract:
Every producer has at one time, or in a short perspective, a certain volume of financial resources, and depending on production that seeks to obtain and the prices of factors of production required, it will be done combining these components its financial-economic activity to achieve the objective of maximizing profits, and reflects best use of its resources.

Key words*: marginal productivity, marginal cost, marginal revenue, maximum profit;*

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The market of production factors has a mechanism of functioning wich, although do not differ substantially from the corresponding consumer goods, however, present some peculiarities. If we were to refer to such employment (or any other factor), the application for registration does not result from consumer preferences, as with other goods, but in terms of production and supply conditions are not derived from production, but preferences of workers. The central place in this market study of marginal productivity analysis holds, subject to the concerns of many neoclassical economists guidance, such as John Bates Clark, W.S Jevons (The Theory of Political Economy) A. Marshall (Pricipals of Economics), etc. In this paper we will address only the most important synthetic aspects pertaining to this approach.

As already demonstrated, a company uses its resources optimally while obtaining the maximum profit possible in the technical, economic and social conditions existing when they realized that equality between marginal cost (Cm) and marginal revenue (Vm) and reports the equality between marginal physical productivity of factors and prices.

Thus, if equality Cm=Vm is written as:

(1) $\frac{\Delta C}{\Delta Q} = \frac{\Delta V}{\Delta Q}$

which is amplified by the ratio $\frac{\Delta Q}{\Delta p}$ reaching equality

(2) $\frac{\Delta C}{\Delta P} = \frac{\Delta V}{\Delta P}$

which can be also written as

(3)$C_{mx}=W_{mvx}$

C_{mx} =-represents the marginal cost factor for **x** (how much the total cost increase in production when using an additional unit of **x** factor, other factors remaining constant) W_{mvx} = - x-factor productivity marginal value.

If $C_{mx} < W_{mvx}$, means that increasing one unit of factor x increases the cost of production in greater than income, in such circumstances is recommended not increasing but decreasing the the use of factor x. On the other hand, if $C_{mx} > W_{mvx}$ shows that increasing the use of factor x leads to an increase in total revenues in an even greater proportion than the total cost, that is why to increase the use of factor x is recommended.

Increase or decrease the amount used in a factor is indicated so until $C_{mx}=W_{mvx}$ (when there is total profit maximization and optimal utilization factor).

By a trick,it appears that:

$$\frac{\Delta V}{\Delta P}=\frac{\Delta V}{\Delta Q}\cdot\frac{\Delta Q}{\Delta P}=V_m.W_{mfx},$$

which means that the marginal productivity of an input value is simply the natural product of its marginal productivity ($W_{mfx}=\frac{\Delta Q}{\Delta P}$ and marginal revenue (V_m).

How, in conditions of perfect competition, maximum profit is obtained when equality is achieved in the product market p = Vm (p-price of the goods manufactured by using factors) means that:

$W_{mvx} = p.W_{mfx}$

Therefore, the link between physical and value the marginal productivity of factors is through the price of the manufactured product at their expense.

Perfectly competitive market, firms producing the maximum profit obtained when factors: $C_{mx}=px$ (px-price the factor x).

Therefore equality: $C_{mx}=W_{mvx}$ can also write

$C_{mx}=W_{mfx}$

or

$p_x=W_{mfx}.p$

This means that the free market price of factor x is equal to the marginal value productivity (because $W_{mvx} = W_{mfx}.p$) and the marginal product of physical productivity (W_{mfx}) and product price (p) in whose manufacture involved.

As the price of the product p is unique and how the last relationship that = p, for production factors x (x = 1, 2, 3 ... ... n) is valid:

$$\frac{p_1}{W_{m1}}=\frac{p_2}{W_{m2}}=.....\frac{p_n}{W_n}=p$$

It follows that a company uses resources in an optimal way (in conditions of perfect competition) thus obtaining the maximum profit when there is equality on the one hand, the ratios of the marginal productivity of factors and their prices and, secondly, between marginal cost and price of goods produced with them, which can be highlighted by the following example.

To find an answer to problems brought to attention through this work, we conducted a case study to **SC Expandal SA IASI**.

The activity of this company is marketing of PVC profile Gealan. The company in question offers the image of a company that opts to achieve promptitidine standards, safety and quality of products and services, to develop an open business environment, to ensure secure real resources and profit growth.

The main method used to collect empirical material for this study was to analize the data from that economic unit and they are sintetized as it follows:

Working factor	Q	W_m	p	V	W_{mv}	Price of labor	Total variabil cost	Net Income
1	20	-	10	200	-	40	40	160
2	28	8	10	280	80	40	80	200
3	34	6	10	340	60	40	120	220
4	38	4	10	380	40	40	160	220
5	40	2	10	400	20	40	200	200
6	40	0	10	400	0	40	240	160
7	39	-1	10	390	-10	40	280	110

Conclusions:

For the manufacturer to maximize its profits, should the marginal productivity value of each factor is equal to its price. In other words, the entrepreneur has an advantage by increasing the use of a determined factor (factor working in our example) to the extent that the supplement receipt obtained from the use of an additional unit of that factor, this factor is higher prices, ie using a unit cost of this suplimentary factor.

According to data summarized in this table, the net income of quasi-maximum production is obtained when a 38-unit natural, made with four workers, in which case the marginal value productivity (W_{mv}) (40 monetary units) equals the price of labor (ie wage Which for Q = 4, is all of 40 um).

Generalizing, we may conclude that an input is used best when he uses that amount from the appropriate marginal productivity equals its price.

Obviously, all the conclusions presented are valid for variable factors of production.

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