Fixed costs impact of the optimal level of publisher output

Business

(Question One) To what extent do fixed costs impact the optimal level of output for the publisher as well as the author?

Fixed costs do not affect at all the optimal level of output in the context of the publisher. This is because as per the argument presented earlier, the optimizing level of output of the publisher is at the point where Marginal Cost (MC) = Marginal Revenue (MR).

Fixed costs have no impact at all on the profit maximizing output of the author. As per the argument presented earlier the author takes a simple percentage of retail prices. Fixed costs do not vary at all regardless of the variance in output.

A variance in a firm's fixed cost outlays has no impact upon the price levels for profit maximization. An example is a scenario where fixed costs are escalated and the impact observed on the price of profit-maximization is none as well as output. This is as long as that company remains in business. To offset rises in fixed costs, the firm's management can do nothing at all. The reason is that fixed costs do not vary at all with a variance in output levels by definition. Thus, whether the business is booming or in a trough, fixed costs remain the same. (Baumol and Blinder, 2008 p168)

(Question Two)

How is the optimal condition MPl/Pl = MPk/Pk mathematically derived?

This is a case of optimization in a scenario of two outputs. These outputs are capital and labor. The optimal condition can be derived mathematically as follows:

For the manufacturer to optimize production, they assume that the function of production Q is a function of both labor and capital as well as the fact that the costs to the firm are prices of the resources and fixed costs times the units of every factor employed.

Therefore; Q = f(K, L)That is, Q= function of production

f= function

K= Capital

L= Labor

Note that Q is the factor to maximize faced by the cost constraint C

C= F + PK+PL, That is, F= Constant or fixed costs

PK= Price of Capital

PL= Price of Labor

Set the function of cost to be equal to zero (0) such that adding C to the function of production has no impact on the final result and then multiply it with Lambda (λ). Subsequently costs are subtracted from the function of production so as to determine the level of maximizing production given costs. Thus,

P = f(K, L) – λ(-C+F+PK+PL)

For that to hold water, there are the conditions of the first order. By this it means that the functions below have to be equal to zero (0) such that their first level derivatives are equal to zero (0) and this grants the function’s maximum. That is,

Δl/ΔK = fK-PK; this means the capital amount applied is maximized putting into account cost,

Δl/ΔL = fL-PL; this means the labor amount applied is maximized putting into account cost,

Δl/Δλ= -C+F+PK+PL= 0; this means that the function of cost is minimized.

Combining the first and the second first derivative functions, this is the result:

fK/fL= PK/PL

In this case fL the Marginal Product of Labor and fK is the equivalent for Capital. The result is that;

MPL/PL = MPK/PK

(econessays. com, 2011)

Work Cited:

econessays. com. Show How a Firm Determines the Optimal Combination of Factors of Production. (2011). Retrieved 17 June 2011 http://www. econessays. com/essay1. htm

William J. Baumol, and Blinder Alan S. Economics: Principles and Policy. Edition 11. Cengage Learning. (2008).