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Topic : Factor Pricing Analysis (Basic Introduction)

Factor Pricing Analysis

Introduction

Theory of factor pricing on the theory of distribution is concerned with an analysis of how and in what manner the factor of production get remuneration for their contribution to the production process as the production of goods and services in an economy is the result of the joint efforts of factors of production.

Though like the pricing of goods the factor pricing is also based on market demand and supply , the essential difference between these two lies in the force operating behind demand and supply of these factors. How much the demand for the factor depends upon the quantity of goods that it helps to produce and the extent of demand for these goods in the market. Thus, the demand for a production factor depends upon the demand for its products in the market. This type of demand is known as **Derived demand.**

Concept of APP, MPP, MRP & VMP

- **Average Physical Productivity (APP):**

  Average Physical Productivity is the total production divided by the number of unit of factor employed.

  APP = Total Output/ Total number of units of a factor

- **Marginal Physical Productivity (MPP):**

  Marginal physical product ability of a factor is the increase in total output caused by employing an additional unit of the factor, the quantity of other factors remaining fixed.

  MPL= dX/dL.   And.   MPk= dX/dK

  Where,

  MPL= Marginal Productivity of labour

  MPK= Marginal Productivity of capital

  dX= change in output

  dL= change in labour

  dK= change in capital

Marginal Revenue Product (MRP) :

Marginal revenue product is the increment in the total value of a product caused by employing an additional unit of a factor, the expenditure on other factors remaining unchanged. In other words, the marginal revenue product is the marginal physical product of the factor multiplied by the marginal revenue.

MRP= MPP× MR

Value of Marginal Product (VMP) :

It means the marginal physical product of the factor multiplied by the price of the product i.e; average revenue.

VMP= MPP × Price (Or AR)

Since under perfect competition the demand curve of the product facing an individual firm is perfectly elastic and therefore price and marginal revenue are equal, the value of marginal

product and marginal revenue product are equal to each other (as shown in Figure 178). But since in monopoly or imperfect competition average revenue demand curve is falling downward and MR curve lies below the average revenue curve, price is not equal to marginal revenue. Therefore, in Monopoly or in other forms of imperfect competition, MRP will not be equal to the value of marginal product (VMP). Since price is higher than marginal revenue under Monopoly or monopolistic competition in the product market, the value of marginal product (VMP) will be larger than the marginal revenue product (MRP) curve will lie below the value of marginal product curve as shown in Figure 179.

Thus, **imperfect competition MRP and vmp have identical meaning but in imperfect competition they diverge.**
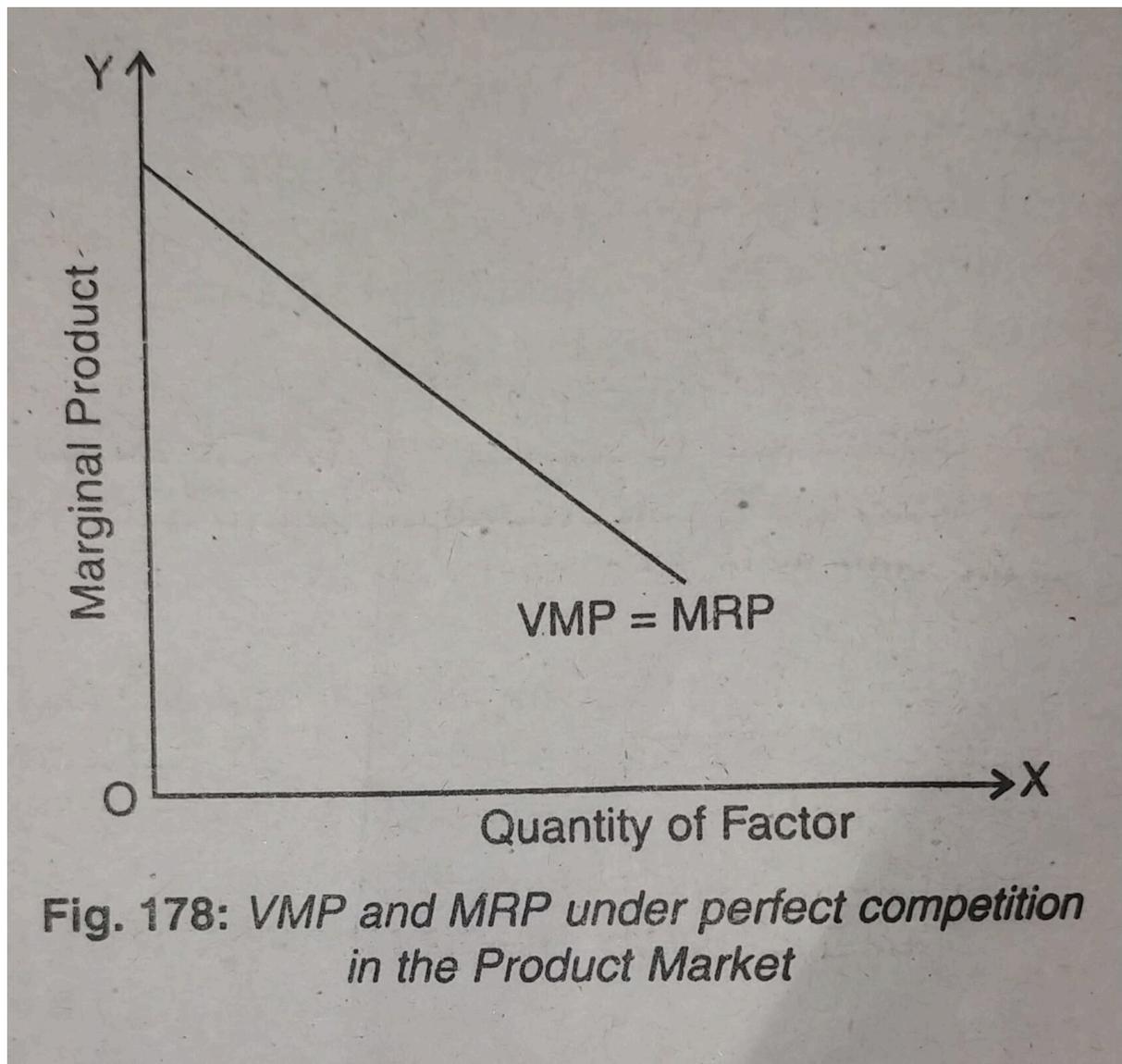
Fig. 178: VMP and MRP under perfect competition in the Product Market
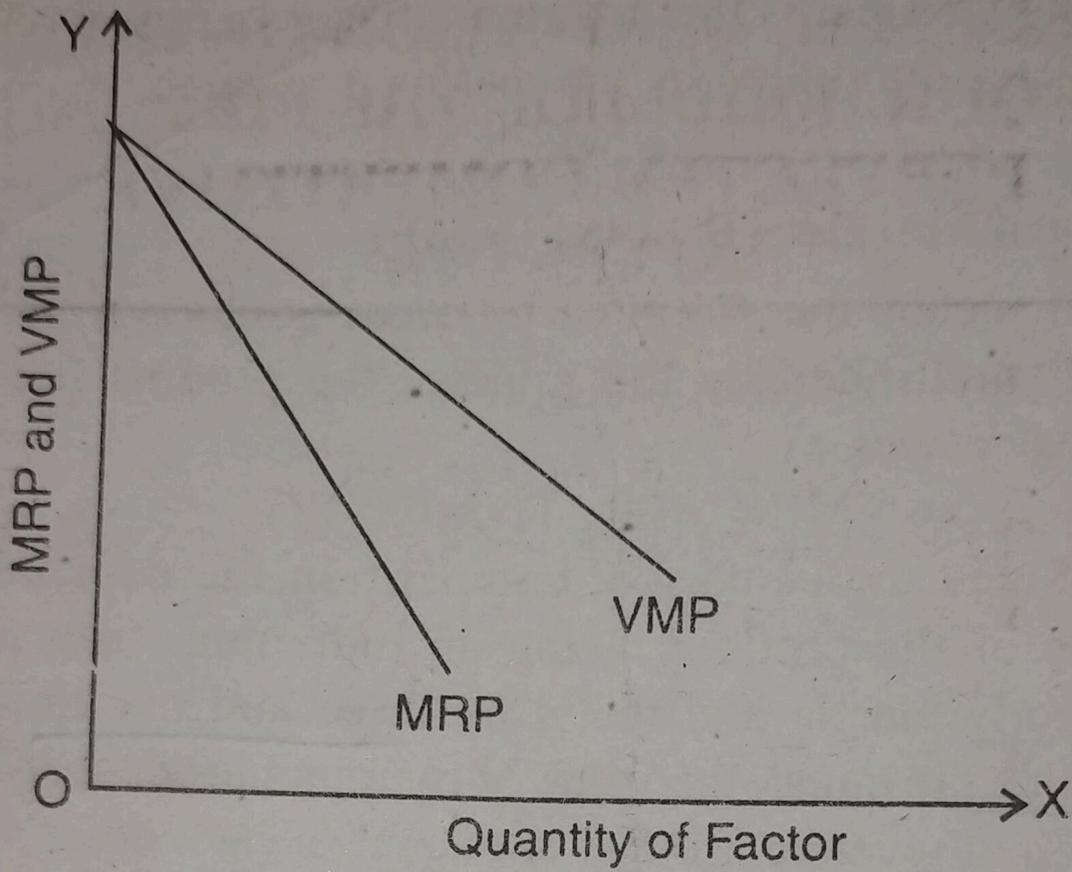
Fig. 179: VMP and MRP under Imperfect
Competition in the Product Market