

## CHAPTER - 6

### FACTOR PRICING

#### **MODERN THEORY OF FACTOR PRICING (DEMAND AND SUPPLY THEORY):**

The modern theory of factor pricing provides a satisfactory explanation of the problem of distribution. It is known as the demand and supply theory of distribution. According to the modern theory of factor pricing, the equilibrium factor prices can be explained by the forces of demand and supply.

Prices paid for productive services are like any other price and they are basically determined by demand and supply conditions. Incomes are received as payments for the services of factors of production. Wages are payments for the services rendered by labor. Rents are payments for the services of land and interest is payment for the services of capital. In this way most incomes are remunerations or prices paid for services rendered by factors of production in the process of production.

This theory is superior to the marginal productivity theory, because it takes into account both the forces of demand and supply in the determination of factor prices. Marshall held the view that no separate theory is required to explain factor prices. The principles which govern commodity pricing also govern factor-pricing. The following paragraphs touch upon the salient aspects of the theory.

According to Lipsey and Stonier, *"The theory of factor prices is just a special case of the theory of price. We first develop a theory of the demand for factors, then a theory of the supply of factors and finally combine them into a theory of determination of equilibrium price and quantities."*

#### **ASSUMPTIONS:**

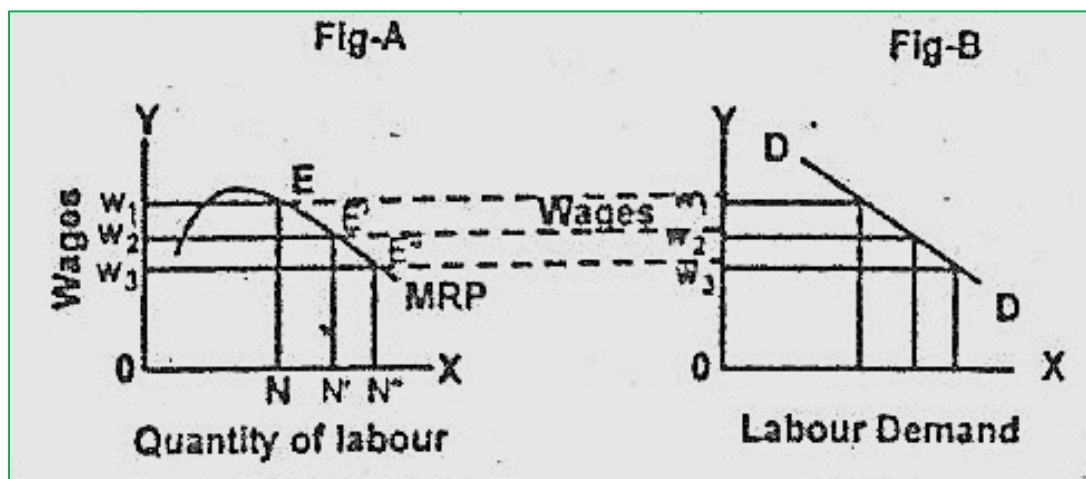
1. Every producer tries to get maximum profit.
2. Producers have perfect knowledge of the MRP
3. Active competition exists in the factor market.
4. There is active competition among the different units of factors.
5. The state does not intervene to equate the prices of the factor service.

#### **DEMAND FOR A FACTOR OF PRODUCTION:**

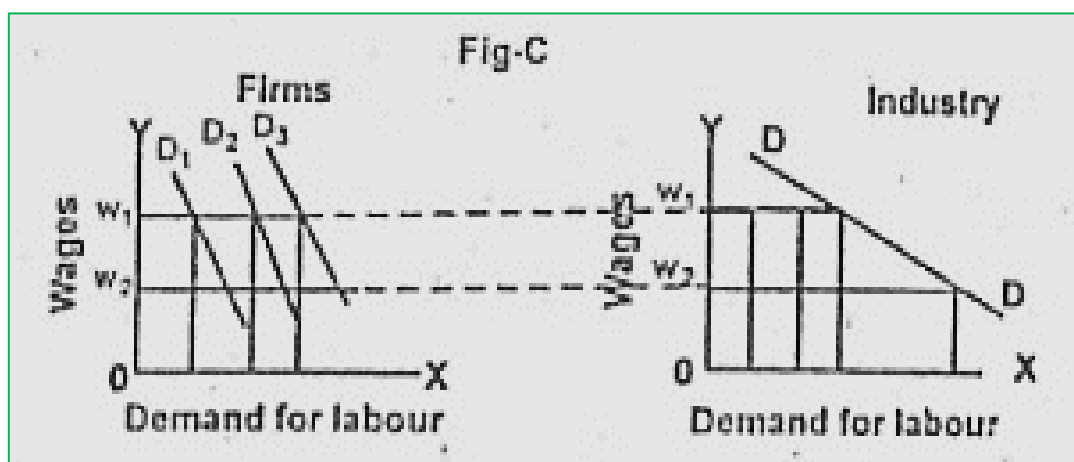
The demand for a factor is not a direct demand but it is an indirect or derived demand. The demand for labor, for example, is not demand for labor himself. It is in fact, demand for goods or services which the labor produces. Thus when demand for goods increases, the demand for the factors which produce those goods would also rise. If demand for goods is elastic, the demand for factors would also be elastic. Similarly when demand for goods is inelastic, the factor which produces it will also be inelastic. The demand for any given factor of production also depends upon the availability of other factors which co-operate with this factor in the process of production. Normally the demand for and price of a given factor will be higher if the co-operating factors are available in large. A third rule regarding the demand for a factor is what when more

of a factor is employed, its marginal productivity is likely to fall and hence its demand and price are also likely to become lower. The demand and price of a factor also depends upon the market price of the goods for the production of which this factor has been used. If the goods are being sold at high prices the demand for the factors would also be higher.

In the Fig-A various amounts of labor employed by an individual firm at different wage rates are shown. When wages are  $OW_1$  the firm is in equilibrium at the point E and therefore employs ON amount of labor. As the wages go down  $OW_2$ , the equilibrium position shifts to E and total employment of the factor goes up to  $ON'$ . Similarly at the wages rate  $OW_3$  the employment of factor goes up to  $ON''$ . The demand curve for labor is thus downward slopping as shown in Fig-B.



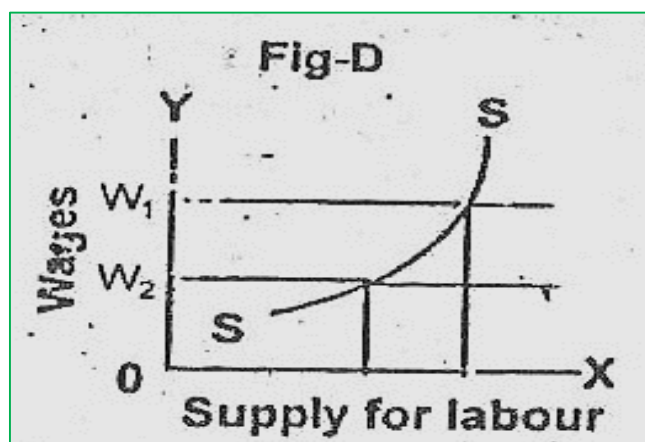
Now to obtain the demand curve for the whole industry, all the demand curves of the individual firms have to be summed up. Let us for the sake of illustration take that the industry consists of only three firms with the demand curves  $D_1$ ,  $D_2$  and  $D_3$ . The total demand curve of the industry would be summation of three demand curves.



### SUPPLY OF A FACTOR OF PRODUCTION:

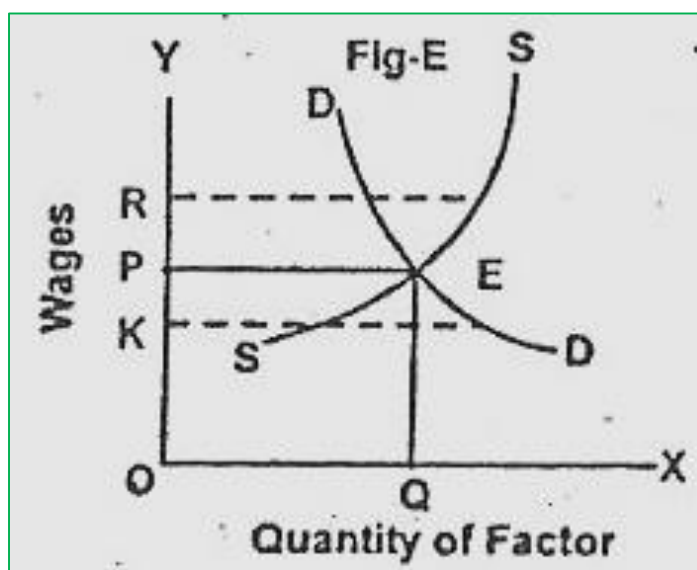
The supply of a factor of production depends upon a number of factors. Let us take the case of labor. The supply of labor depends upon the size and composition of population, its geographical and occupational distribution, efficiency of labor, expected income etc. But one thing that is generally true is that more of labor would be offered in the market when wages are higher compared to what is being offered at lower wage rate. It is only a general tendency which may

not be true always. If at higher wage rate labor starts preferring leisure to work the supply of labor is likely to fall thus the supply curve of labor may be backward sloping. However such cases are very rare.' Therefore for the purpose of our analysis the supply curve for labor may be treated to be upward sloping showing that more of labor is supplied when the wages go up. The supply curve is given at Fig-D.



#### DETERMINATION OF MARKET PRICE OF A FACTOR:

After a detailed discussion on the demand and supply aspects of labor during production, let us see how wage rate is determined by their interaction. In the Fig-E, DD represents the demand curve for the factor of production say labor and SS is the supply curve. Both curves intersect each other at point E, which is the equilibrium position in factor market at which EQ is the equilibrium wage rate. If the wage rate increases to OR, demand for labor will fall and supply will rise, which may cause competition among laborers, thus the wage rate would fall resultantly. Contrary to it if the wage rate falls to OK then supply of labor will fall and demand will rise which may cause competition among producers to employ more and more labor at lower wage rate resultantly this competition would rise the wage rate and this up and down will bring it to the equilibrium level OP or QE at OQ quantity of labor.



## **CRITICISM ON DEMAND AND SUPPLY THEORY:**

The theory is criticized on the basis of some of its weak assumptions which are given as

1. The aspect of increasing return in the theory of distribution or factor pricing is completely ignored.
2. As the factors of production are not close or complete substitutes of each other, therefore they cannot be substituted for one another.
3. Homogeneity in all units of a factor of production is not possible.
4. Prevalence of perfect competition in' both factor and production market is not correct because in real world it does not prevail.