Laxmi Narain Dubey College, Motihari
(a constituent unit of B.R.A. Bihar University, Muz.)
NAAC Accredited 'B+'
Department of Economics

Topic: REVENUE

Paper-I: MICROECONOMICS
Part-I
B.A. (Hons.)

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REVENUE

Revenue refers to the payments received by an entrepreneur from the sale of the goods produced. If a producer can sell during a week 200 pens at the price of Rs.5 each his total revenue during the week equals Rs. 5 × 200 = Rs. 1,000.

Total Revenue

Total Revenue refers to the total amount of money that a firm receives from the sale of its products. By selling 20 apples at the rate of Rs. 2 each, the total revenue he gets is 20 × 5 = Rs. 100. Thus, TR = Q × P, where Q is total quantity sold and P stands for price per unit.

Average Revenue

Average revenue is obtained by dividing total revenue earned by the total number of units sold by a producer. Average revenue curve of a firm is same thing as the demand curve of the consumer. Thus, it means price of the product. Symbolically, AR = TR/ TQ

Marginal Revenue

Marginal revenue is the change in total revenue resulting from a unit (one unit) change in the output sold. In other words, it is the revenue, which would be earned by a producer by selling an additional unit of his product.

$$MR = \frac{\Delta TR}{\Delta TQ}$$

$$\text{Or, } MR = TR_n - TR_{n-1}$$

Where, TRn is the current or selected value of total revenue and TRn-1 is the previous value of total revenue. For example, TR of selling first unit of a product is Rs. 12 and TR of selling one more unit is Rs. 20, then TRn and TRn-1 are 20 and 12 respectively. Thus, MR = 20 – 12 = 8. It means, by selling one more unit the seller gets additional revenue of Rs. 8.

RELATIONSHIP BETWEEN AVERAGE AND MARGINAL REVENUE

Let us explain the relationship between AR and MR with the help of a table below:

Units	Price or Average Revenue	Total Revenue	Marginal Revenue
1	15	15	15
2	14	28	13
3	13	39	11
4	12	48	9
5	11	55	7
6	10	60	5
7	9	63	3
8	8	64	1

Total revenue column is derived by multiplying 'units' column with 'AR or price' column. Marginal revenue has been derived from the total revenue column as explained earlier. It is seen that when AR is falling, MR is less than AR. It should be noted that under perfect competition (meaning of perfect competition is dealt in a separate chapter) average and marginal revenue curves coincide, i.e., AR = MR. However, under imperfect competition, AR > MR as shown in the table above.

Under perfect competition, seller cannot influence price of the product. He has to sell at the ruling price prevailing in the industry. Thus, average revenue or price is same throughout. Marginal revenue curve coincides the average revenue curve because additional units are sold at the same price as before. This is shown in the table below:

Units (Q)	Price or Average Revenue (P)	Total Revenue (Q × P)	Marginal Revenue
1	10	10	10
2	10	20	10
3	10	30	10
4	10	40	10
5	10	50	10
6	10	60	10
7	10	70	10
8	10	80	10

The relationship between AR and MR under perfect competition is illustrated in the Fig. 1.

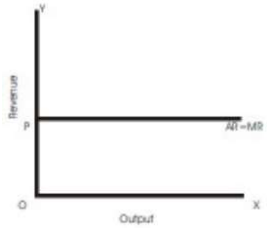

Fig. 1

The relationship between AR and MR under imperfect competition is illustrated in the Fig. 2 below. AR and MR are the average and marginal revenue curves. Along x-axis output is measured and along y-axis, revenue earned by the seller. It is seen that when AR is falling, MR < AR.

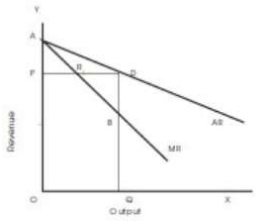

Fig. 2

A general relationship between AR and MR are as follows:

(1) When AR is falling (sloping downwards), MR lies below AR (MR < AR).

(2) If AR is constant, AR = MR (under perfect competition, Fig. 1).

(3) When AR and MR curves are straight lines perpendicular drawn from any point of the AR curve to the y-axis will cut into equal parts by MR curve. PR =RD in the diagram shown in Fig. 2.

(4) When AR and MR curves are not straight lines, but either is convex and concave to the origin, the marginal revenue curve will not lie halfway from the average revenue curve.