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Role of Demand and Supply in Price Determination under Perfect Competition Market

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Abstract

This research paper delves into the mechanism of determination of Price in Perfect Competition Market. We all purchase commodities in our day-to-day life, but being the consumers have you ever wondered from where does this price which we pay for a specific commodity come from? What are the driving forces of the price, who decides the price? This very research paper guides the determination of prices that we pay in our daily lives with a detailed explanation of demand and supply mechanism at micro level. But to understand the price determination, first understanding the law of demand and law of supply is necessary along with brief knowledge about perfect competition market. And through this research paper we have made an attempt to portray the price determination in the perfect competition market by juxtaposing it with an example through graphical presentation.

Keywords- Price Determination, Law of Demand, Law of Supply, Perfect Competition Market

1. Law of Demand

Demand is the desire to buy, willingness to pay and ability to pay. Demand is the quantity of a commodity that is desired by the consumer at a particular price and at a particular point of time. Demand for a commodity depends on its utility. For example- Wheat has a great utility hence it is demanded in large quantities. While on the other hand, diamond has less utility only by specific class of consumers hence its demand will be comparatively less, as compared to wheat.

DEMAND= DESIRE TO BUY+ WILLINGNESS TO PAY+ ABILITY TO PAY

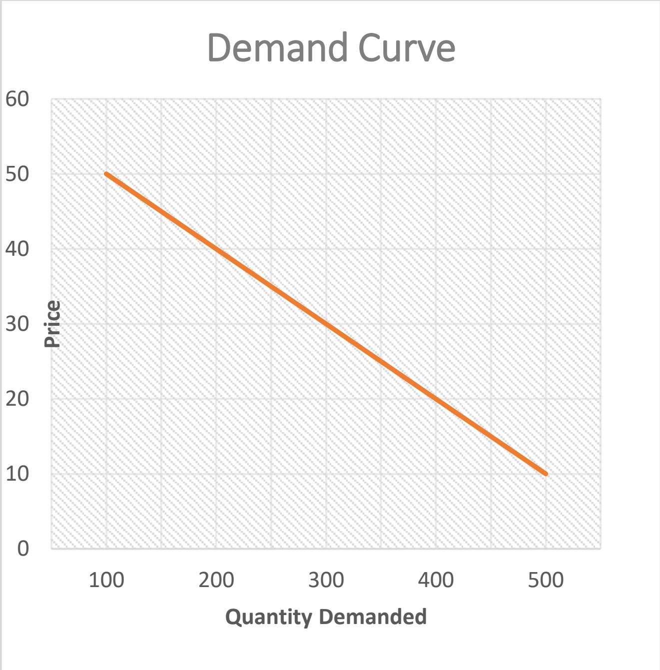
According to Prof. Alfred Marshal: -

“All the other things remain constant, higher the price smaller will be the quantity demanded and lower the price, larger will be the quantity demanded. Following is the tabular and graphical representation of Law of demand.

Table 1: Demand Schedule

Price (in Rs.)	Quantity demanded (in grams)
10	500
20	400
30	300
40	200
50	100

Figure 1: Demand Graph



- In the above graph of demand curve, the X-Axis, denotes the Quantity demanded and the Y-Axis denotes the price
- When the price is Rs. 10 the quantity demanded of a commodity is 500, and when the price rises to Rs. 20, the quantity demanded becomes 400, with the further rise in price to Rs. 30, quantity demanded falls to 300, and so on.
- This shows that with the rise in the prices the quantity demanded falls, and vice versa. This is the reason why the **demand curve is a curve sloping downward from left to right.**
- From the above graph we can draw the conclusion, that price is indirectly proportional to quantity demanded.

2. Law of Supply

According to Paul Samuelson: -

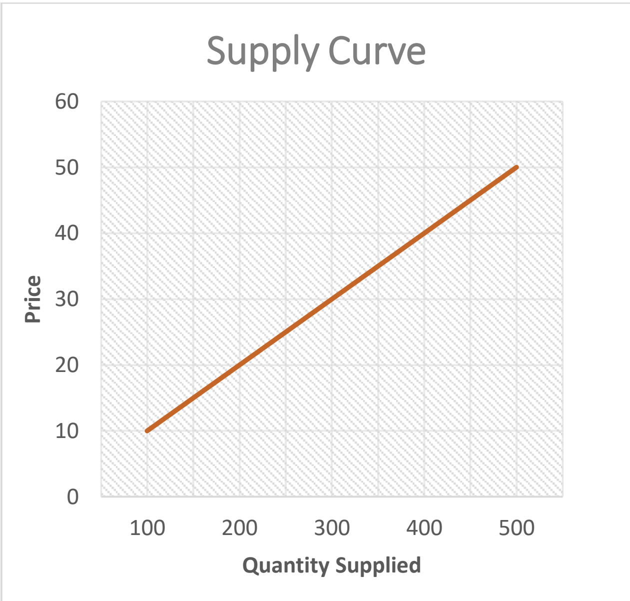
Supply refers to the "relationship between Market price and the amount of the goods that producers are willing to supply". Hence, Supply refers to the quantity of a commodity offered for sale at a given price and at a point of time. The law of supply was introduced by Prof. Alfred Marshal in his book "Principles of Economics" in 1890.

According to prof. Alfred Marsha- Other things remain constant, "Higher the price of the commodity, greater will be the quantity supplied and lower the price of a commodity, smaller will be the quantity supplied." Price and supply are directly proportional.

Table 2: Supply Schedule

Price (in Rs.)	Quantity Supplied (in grams)
10	100
20	200
30	300
40	400
50	500

Figure 2: Supply Graph



- In the above graph of Supply curve, the X-Axis, denotes the Quantity Supplied of the commodity, while the Y-Axis, denotes the Price of the commodity.
- When the price is Rs. 10, the Quantity supplied is 100, and with a rise in the price from Rs. 10 to Rs.20, the quantity supplied also increases from 100 to 200. As the price rises to Rs.30 the supply

of the quantity also records a rise at 300, and so on. This demonstrates that the **supply curve slopes Upward from Left to right.**

- Hence, from the above observations it is clear that price and supply share a direct relation, i.e., they are directly proportional to one another.

3. Perfect Competition Market

Perfect Competition market is a market where there are a large number of buyers and a large number of sellers selling homogeneous products at a single price. Perfect competition market is a specific type of free market, where there are no government interventions and hence it is termed as free market.

Free market is an economic system where the prices of goods and services are determined by the demand and supply and not by government interventions. As a matter of fact, countries like Singapore, Switzerland, Taiwan and Ireland rank among the free market economies.

Following are the features of perfect competition market: -

1. Large no. of buyers and seller
2. Homogenous product
3. Single price
4. Free entry and exit
5. Perfect knowledge of the market
6. Perfect mobility of factors of production
7. Absence of transportation cost
8. No government intervention

Price determination under perfect competition market

The price under perfect competition market is determined by the two forces i.e., demand and supply. The interaction of the two forces determines the price under perfect competition market. Here, the point where the demand curve cuts the supply curve, is known as the point of interaction of demand curve and supply curve, which is also the point of equilibrium, as at this point demand is equal to supply, thus the price at this point of equilibrium is known as the equilibrium price and that price is given to the firm.

Taking an example of pigeon seed i.e., tur Dal. The approximate consumption of pigeon seed i.e., tur dal in India is 44-45 Lakh Tones and this makes it a very commonly consumed pulse in the country. Following is the tabular as well as graphical representation of price determination of Tur Dal in a specific region and at a specific time, through the two market forces i.e., Demand and Supply.

Table 3: Demand and Supply

Price (per kgs in Rs.)	Quantity Demanded (in kgs)	Quantity Supplied (in kgs)	Relation between demand and supply
100	50	10	D>S
200	40	20	D>S
300	30	30	D=S
400	20	40	D<S

500	10	50	D<S

Figure 3: Graph of Price determination in perfect competition market

- In the above graph, the X-Axis represents Quantity demanded and Quantity supplied of Tur Dal, whereas the Y-Axis, represents the price of Tur Dal.
- From the above graph it is observed that, when the price is Rs. 100 Quantity demanded is 50 and quantity supplied is 10, as the price increases to Rs. 200 the quantity demanded decreases to 40 and quantity supplied increases to 20, with the further rise in the price to Rs. 300, the quantity demanded becomes 30 and the supply also becomes 30. Hence this is the point of Equilibrium and the demand and supply intersect at this point thus, the price Rs. 300 is the equilibrium price.
- To be noted from the above observations, the conclusion is that Rs. 300 is taken as the market price of tur dal, as at this price demand and supply tend to meet and intersect one another.
- Though, changes in demand or supply or in both, can cause the equilibrium price to shift, leading to higher or lower prices.

4. Factors Affecting price

However, in the determination of price of Tur dal or any other commodity, apart from demand and supply, there is a complex interplay of factors including domestic production, imports, taxes, government policies, global market trends, natural calamities and climate change that possibly can and do affect the demand, supply and prices of goods and services.

5. Conclusion

From the above studies the micro economic concepts such as the law of demand, law of supply, perfect competition market, and the price determination under perfect competition market citing the example of tur dal is made clear. Conclusions are drawn through the graphical representation and practically observed the demand and supply mechanism in price determination of a commodity which is taken to be the commonly consumed pulse, pigeon seed (tur dal).

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