**STUDY MATERIAL 1 Module -12 ECONOMICS GENERAL GE -1 SEMESTER –I 2019-20**

**DETERMINANT OF DEMAND AND SUPPLY:**

Buyers are called demanders, and Sellers and called suppliers.

In this chapter we are particularly interested in using a large number of independent buyers and sellers.

The Product Market involves goods and services, and the Factor Market involves the factors of production (land, labor, capital, entrepreneurial ability).

DEMAND IS A SCHEDULE that shows the amounts of a product consumers are willing and/or able to buy at each price using a series of possible prices during a specific time frame.

The schedule shows how many units buyers (demanders) are willing and able to buy at the possible prices. The market price depends on the intersection of demand and supply.

The (General) Law of Demand uses the assumption of ceteris paribus (other things being equal). This implies that as price increases, the corresponding quantity demanded falls. In other words, there is an inverse relationship between price and quantity demanded. The ceteris paribus assumption refers to constant prices of related goods, income, tastes, and all other things besides price.

We will briefly touch upon the Marginal Rate of Substitution (MRS). This concept is related to the Income Effect and the Substitution Effect.

The Income Effect is when a lower price increases the purchasing power of money income enabling one to buy more at a lower price or less at a higher price, when incomes are unchanged.

The Substitution Effect is when lower prices give incentive to substitute the lower priced good for now relatively higher priced goods.

The Marginal Rate of Substitution is the rate, at the margin, at which a consumer is prepared to substitute one good or service for another and remain equally satisfied (have the same total “Utility”); and is equal to the slope of an indifference curve (Managerial Economics).

The demand curve shows an inverse relationship between price and quantity demanded. It has a downward slope indicating a lower quantity at a higher price; or a higher quantity at a lower price. Quantity is on the horizontal axis and price is on the vertical axis.

Market demand is the horizontal sum of individual demands. The transition from an individual demand schedule to a market demand schedule is done by summing individual quantities at various price levels. The market curve is the horizontal sum of individual curves.

What other things affect demand (other that price)? Note that changes in the determinants of demand shift the location of the demand curve to the right or left. The determinants of demand are referred to as demand shifters. A change in a determinant of demand will change the demand schedule. A shift in the location of the demand curve is called a “change in demand.”

Determinants of Demand

1. Tastes – favorable changes increase demand, unfavorable changes decrease demand.

2. Population – More buyers increase demand, fewer buyers decrease demand.

3. Income – more income increases demand, less income decreases demand for normal goods. (An inferior good is when demand varies inversely with income).

4. Prices of related goods –

Substitute goods (can be used in place of each other). This implies that the price of the substitute and demand for the other good are directly related, e.g., if the price of Coors beer rises then the demand for Budweiser will also rise.

Complementary goods (can be used together, such as tennis balls and rackets, or college tuition and books). When goods are complements, there is an inverse relationship between price of one good and the demand for the other (e.g., if tuition rises, then students take fewer courses such that book demand will be lower).

5. Expectations – consumers’ views about the future prices, product availability, and income can shift the demand curve.

A “change in the quantity demanded” denotes movement from one point to another on a fixed demand curve. That is, it denotes movement from one price-quantity relationship to another. Usually, the cause of a change in quantity demanded is a change in the price of a product under consideration.

SUPPLY

Quantity Supplied and its relationship to price which is normally referred to as “Supply” are developed into a SCHEDULE that shows amounts of a product a supplier is willing and able to produce and sell at each specific price in a series of possible prices during a specific time frame.

The supply schedule shows those quantities that can be offered at various prices or answers the question, “At what price will be required to induce various quantities to be offered?”

The general Law of Supply means that producers will produce and sell more of their product at a high price than at a low price. There is a direct relationship between price and quantity supplied. Given product costs, a higher price implies greater profits and thus an incentive to increase the quantity supplied.

A change in any of the determinants of supply can cause a change in supply, and a shift in the supply curve. These determinants of supply are called supply shifters. An increase in supply involves a rightward shift, where a decrease in supply involves a leftward shift. Note also that any movement along a fixed supply curve is referred to as a “Change in Quantity Supplied.”

Determinants of Supply

1. Resource Prices, i.e., the prices of the Factors of Production – a rise in resource prices (of materials, labor, or other inputs) will cause a decrease in supply or a leftward shift in the supply curve; a decrease in resource prices will cause an increase in supply or a rightward shift in the supply curve.

2. Technology – a technological improvement means more efficient production and lower costs so an increase in supply or a rightward shift in the supply curve.

3. Taxes & Subsidies – a business tax is treated as a cost so decreases supply; a subsidy lowers cost of production so increases supply.

4. Prices of other related goods – If the price of a substitute goods rise, producers can shift production towards the higher priced good causing a decrease in supply of the original good. If a raw material has a by-product, an increase in supply of one good implies a corresponding increase in supply of the by-product.

5. Expectations – Expectations about the future price of a product can cause producers to increase or decrease current supply. Inventories become important, e.g., the supply of gasoline as compared with heating oil.

Number of Suppliers – Generally the larger the number of suppliers the greater the supply.

Weather conditions- Generally favorable conditions increase supply and unfavorable conditions decrease supply.

STATIC ANALYSIS

Static analysis is a “sub-field” of positive economic analysis that answers the questions about states of the economies, not about the process of change. One way of looking at economic phenomena is to examine the state of the economy under consideration by comparing one state with another. This is termed comparative statics.

By the state of a given economy one would appear to mean its average performance over a fairly long period, short-run fluctuations being canceled out. A static model exhibits an unchanging economy. The static equilibrium model is a methodology that attempts to balance economic forces. In a static economy (in which wants are unchanging and resources are unchanging), the state of equilibrium is where all the individuals or business firms in it are choosing those quantities that they prefer to produce or to consume. Labor and capital (as well as other factors of production) are taken to be constant in a static economy. In other words, static theory can be treated as if it were in equilibrium, i.e., the quantities produced and consumed will be near their equilibrium quantities. By treating economic phenomena in this way, we can gain insights into the structure of the economy. Static equilibrium shows equilibrium at a point in time.

COSUMER SURPLUS AND PRODUCER SURPLUS:

To provide practice in computing and understanding producer and consumer surplus.Computer file:csps98.xlsInstructions and background information:The concepts of producer and consumer surplus help economists make welfare(normative) judgments about different ways of producing and distributing goods. For example,we might want to know whether the current level of production of pizzas is the best one fromsociety’s point of view, or whether social welfare might be improved by having more or lesspizza. If current pizza production is socially optimal, then the amount of society’s resourcesbeing devoted to pizza is about right. Analyzing consumer and producer surplus allows us to saywhether current production is optimal or not.Consumer surplus is the difference between the value to buyers of a level of consumptionof a good and the amount the buyers must pay to get that amount. Consumer surplus is thewelfare consumers get from the good.Consumer surplus can be estimated from thedemand curve for a good. Graph a) shows thedemand curve for pizza, and Q\* pizzas are beingconsumed. Suppose that pizzas sell for P\*, thehighest price that could be charged for Q\*. The valueconsumers place on consuming Q\* is the area A+B. But consumers pay only P\* for each pizza, paying P\*times Q\* in all. Consumers get a value A+B at a costof B. The area A is the consumer surplus.Producer surplus is the difference between the revenue sellers take in from sale of a goodand the minimum amount they would accept to produce it. Producer surplus is the welfare sellersget from selling a good.In a competitive market, producer surplus can be estimated from a good’s supply curve. The graph b) shows the supply curve for pizza, and Q’ pizzas are being sold. Suppose pizzas sellfor P’, the lowest price that would induce sellers to sell Q’. Pizza firms have receipts of Q’ timesP’ (area C + D), but would be willing to sell Q’ for an amount equal to area D. The producersurplus is area C. It’s the welfare sellers get from the good.ApriceQQ\*P\*DABApriceQQ’P’SCDa)b)

7-2Graph c) shows the total producer and consumersurplus in a pizza market where Q” is sold at a price P”. Consumer surplus is A, and producer surplus is B. The totalwelfare from the good is A+B. This is the value of the goodto buyers minus the cost to sellers.The total surplus will be maximized (under mostconditions) if the free market equilibrium prevails. In graphd) the sum of producer and consumer surplus is A+B, andtotal welfare is a maximum.Open the file csps98.xls. What you see are demand and supply curves for pizza in ahypothetical market. You’re asked to compute the values of the concepts just introduced: Thevalue of the good to buyers, the cost to sellers, and the producer and consumer surplus. As withelasticity, it’s more important to understand the concept than to know how to compute it. Butbeing able to compute the values will give you confidence in using the concepts when you needthem, and also illustrate the practical importance of the ideas for public policy.Here are some things to watch for and learn as you do the problems:1)Notice that you need to know quantity and price to compute the surplus. A lowerprice will always increase the consumer surplus. A higher price will increase theproducer surplus.2)In a competitive market, equilibrium price and quantity will also be the price andquantity that maximize the total surplus. This is one reason economists seem tohave a love affair with competitive markets.Here are some hints to help you get the answers quicker:1)You’ll need a calculator to do the computations. The area of a right triangle is(1/2)×base×height.2)Draw a sketch of the graphs on a piece of scrap paper, and label the crucial pointsby referring to the worksheet display of the graph. You’ll need to know where thesupply and demand curves intersect the price axis. Set quantity to zero to findthese numbers. 3)At one point you’ll need to find the equilibrium price and quantity in the market. Use Goal Seek (or experimentation) to find the value of quantity that makes thedifference between the buyer’s price and seller’s price equal to zero.