

An Analysis of Consumer Surplus as Economic Welfare and Producer Surplus as Social Welfare in Business

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ABSTRACT

Economic welfare is directly or indirectly related with money and wealth, surplus and benefit. Consumer Surplus is the economic/financial measure of a customer's benefit. A consumer surplus is gain when the consumer's willingness/interest to pay for a product is greater than its market price. The difference between the price, at which companies are willing to sell the products and the prices that they actually get for the product is the producer surplus. A producer surplus with a consumer surplus equals overall economic surplus or the benefit provided by producers and consumers are interacting in a free market. Welfare economics is the study of aggregate welfare of masses. Economic welfare is the prosperity and standard of living of either an individual or a group of persons. In the field of economics, it specifically refers to utility/satisfaction gained through the achievement of material goods and services. Economic welfare refers to that part of social welfare that can be fulfilled through economic activities production, selling (exchange in market), Marketing and consumption. Welfare economics evaluate the costs and benefits of changes to the economy and helps to formulate public policy for goodness in society, using cost-benefit analysis and social welfare functions with Social Security in economy. The focus in this article is to study theoretical aspects of economic and social welfare with respect to consumer and producer surplus and benefit.

Keywords: *Benefit, Economic, Social, Surplus, Welfare, Willingness*

INTRODUCTION

(A) Consumer Surplus and Producer Surplus: Economic Gain for Society/Economy

Consumer surplus, also known as buyer's surplus, is the economic/financial measure of a customer's excess benefit. A surplus occurs when the consumer's willingness/ interest to pay for a product is greater than its market price. Consumer Surplus is also known as the Equilibrium Price .

Producer Surplus is the difference between the price at which to get maximum satisfaction, as companies are willing to sell the products and, the prices that they actually get for them. Producer surplus is equal to overall economic surplus. If a producer can do price discrimination correctly, or charge from every consumer the maximum price, the consumer is willing to pay, then the producer get the economic/financial surplus. The sum of consumer and producer surplus as Economic Surplus represents the total monetary benefit of consumers and producers and, paying real value to economy for economic and social welfare.

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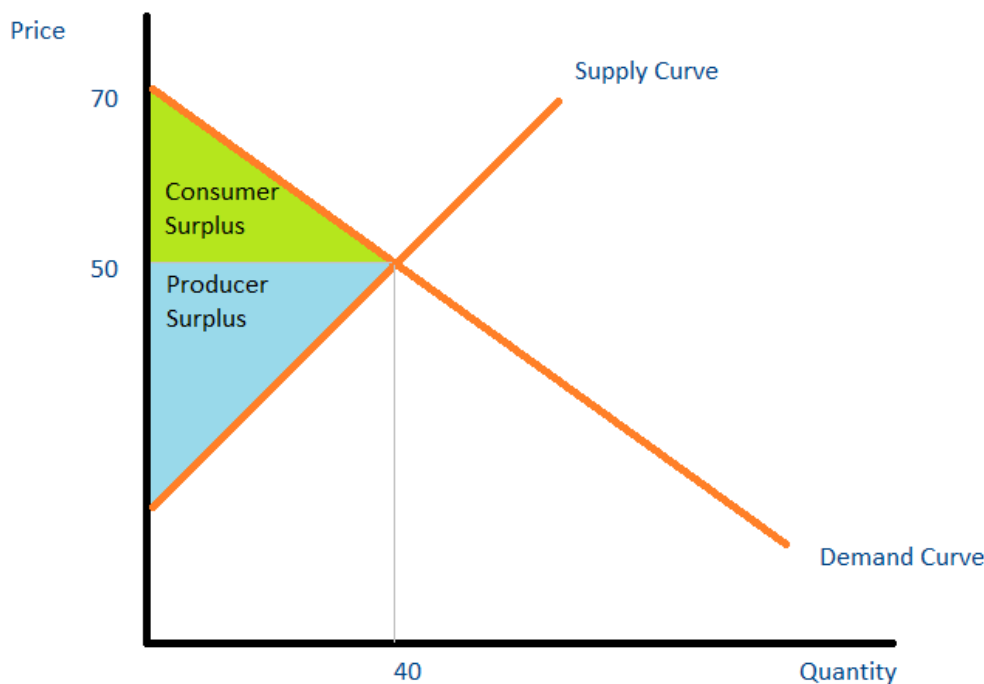
(B)Economic Welfare and Social Welfare

Economic welfare is the part of total human welfare which can be measured in terms of money and its value. It is the level of prosperity and equality standards of living in an economy. It can be measured through a variety of factors such as Gross Domestic Product (GDP) and indicators literacy level (Educational Standard), environmental pollution (Social-Cost benefit) effect health reflecting the welfare of people in Economy. National welfare is, in fact, measured by the amount of goods and services availed by households. The standard of living achieved by the citizen, influenced not by the nation production but by how much it consumes and purchasing parity. Total welfare is total surplus or community surplus as a whole. Non-economic welfare cannot be measured in terms of money such as environment, law and order and social relations. Efforts remain continue to upgrade environment and sustainable development in economy.

(C)Measurement of Consumer Surplus and Producer Surplus**(1)Calculating Consumer Surplus/Producer Surplus**

Consumer surplus is based on the economic theory of marginal utility. The additional satisfaction a person gain by consuming one more unit of a product or service is Marginal Utility (rate of change of satisfaction)/taste /preference. The satisfaction varies by consumer due to differences in personal preference/taste, As the more and more of a product a consumer purchase, the less willingness by a person is to pay more for every additional unit, due to the diminishing marginal utility derived from consumption of the product. The equilibrium price is at a point where the demand and supply equal. **Producer surplus (PS)** is the area above the supply level and below the equilibrium price, whereas the area below the demand level and above the Equilibrium Price is the **Consumer Surplus (CS)**.

Fig.1

**(a) Measurement of Consumer Surplus**

In economic sense, consumer surplus is the difference in price a consumer willing to pay and price actually paid. In Fig.1, Rs.70 willing to pay and Rs.50 actually paid ,show Consumer Surplus Rs.20 per unit.

In business sense, the consumer surplus is calculated with formula

$$\text{Consumer Surplus} = \frac{1}{2} (\text{base}) (\text{height}),$$

With the demand and supply curves, In diagram value shows

$$\text{Consumer Surplus} = \frac{1}{2} (40) (70-50) = 400.$$

(b) Measurement of Producer Surplus

In Fig. 1, With supply and demand graphs shows, the producer surplus would be equal to the triangular area formulated above the supply line over to the market price.

$$\text{Producer Surplus} = \text{Total Revenue (TR)} - \text{Marginal Cost (MC)}$$

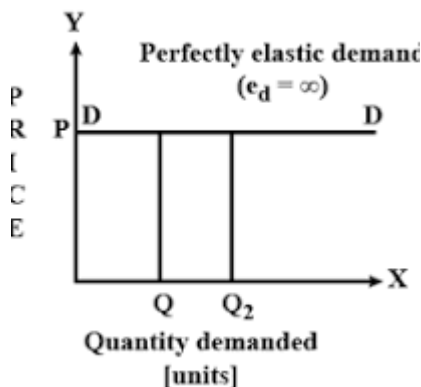
A supply function represents the quantity is supplied at a price, as the market price for the corresponding supply. But there can be some producers who are willing to supply the commodity below the market price. This gain is called the producer's surplus.

The existence of producer surplus with consumer surplus show simultaneously. In a free market, setting a price for a good is that both consumers and producers can get benefit, with consumer surplus and producer surplus generating greater overall economic welfare. Market prices can change materially due to consumers demand, producers demand, or due to other outside forces cost/ expenditure. Due to market prices, profits and producer surplus may change materially.

(2) Effective way to study Consumer Surplus and the Price Elasticity of Demand

The relationship between consumer surplus and price elasticity of demand shows, when the demand for the product is perfectly elastic ($E_d = \infty$), consumer surplus for a product is zero. As in Fig. 2 Elastic demand curve shows fix price of commodity. These products are basic necessities -**milk, water**, etc.

Fig.2



As demand is perfectly inelastic ($E_d = \text{Zero}$), As consumer surplus is infinite as change in the price of the product does not affect its demand, these products like by people and become habit to consume – **Ice cream, Chocolate, Movie** etc..

Fig.3



In normal condition, due to inverse relationship between price and quantity, demand curves are generally downward sloping. With Inelastic demand, consumer surplus is high because the demand is not affected by a change in the price, and consumers are willing to pay more for a product. Moreover, sellers will increase their prices to convert the consumer surplus to a producer surplus also. With elastic demand (less or more), a small change in price effect a large change in demand and corresponding a low consumer surplus. As customers are no longer willing to buy as much of the product or service with a change in price.

(3) Law of Diminishing Marginal Utility : Expose Consumer preference for product

According to economist Alfred Marshal, as a person consume a commodity continuously, the lower the satisfaction derived from every additional unit of consumption. For example, if a person buy one apple for Rs.10 , and not willing to pay more for the second apple. At the same time, the utility derived from consuming the second apple is lower than it was for the first apple . The schedule in the table shows :

Consumer Surplus = Total Utility – (Price x Quantity)

Consumer Surplus =300-(10x5)

Consumer Surplus =300-50=250

Schedule : 1

Sr. No.	Quantity Consumed	Marginal Utility	Market Price (Rs.)	Consumer Surplus
1	1	100	10	90
2	2	80	10	70
3	3	60	10	50
4	4	40	10	30
5	5	20	10	10
6	5 Units	300Util(Unit)	(Rs.)50	(Rs.)250

(4) Assumptions of the Consumer Surplus Theory,

1. Utility (Satisfaction) is a measurable entity- utility can be expressed in number (unit) util.
2. Satisfaction measured in terms of money/price a person pay.
3. There are no available substitutes for any commodity under consideration.

4. Ceteris Paribus condition -It states that customers' tastes, preferences, and income remain same .
5. Marginal utility of money remains constant that is the utility derived from the income of a consumer is constant. Any change in the amount of money, a consumer has does not affect the amount of utility a person derive from it. It is required because without it, money cannot be used to measure utility.
6. Law of diminishing marginal utility states that the more a product or service is consumed, the lower the marginal utility is derived from consuming every additional unit.
7. Independent marginal utility-The marginal utility derived from the product being consumed is not affected by the marginal utility derived from consuming similar goods or services. As consuming apple juice, the utility derived from it is not affected by the utility derived from orange juice.

Economics Welfare in the form of Consumer Surplus and Producer Surplus

The welfare economics is a branch of Modern Economic Theory during the 20th century . The New Welfare economics emerged at the end of the 1930s. A. C. Pigou, an English economist, is the father of welfare economics. Alfred Marshall study importance and characteristics of welfare economics. According to Welfare economics, the concepts such as utility theory, Pareto efficiency, and social welfare functions helps to understand well-being of people in an economy. As the measuring factors for economic development of a nation is Gross National Product (GNP), as well as Gross Domestic Product (GDP). Increase in both of these ensures that the larger availability of the good and services in that country. The standard of living of the people encourages increases the economic conditions of the nation. The different individuals' utilities seeks to evaluate economic policies in terms of their effects on the well-being of the community as welfare –Economic and Social Welfare. The income of future generations is uncertain due to environmental changes. Gross Domestic Product (GDP) is the monetary value of all the products and services generated (estimate producer surplus) in a nation. GDP per capital become a criteria to measure development of a nation in terms of welfare. Welfare on the other hand is the entire wellness of the society comprising benefit of, health, and economic/financial/monetary well-being of masses.

Analysis of Social Welfare in Economy

- (a) Pareto optimality (as Pareto efficiency), is Pareto consistency, independence is a standard generally used in economics to measure. It is a situation where no further improvements to society's well-being can be made through a reallocation of resources that makes at least one person better off without making someone else worse off.
- (b) Welfare economics evaluates the costs and benefits of changes in the economy and direct public policy toward increasing the total good of society, using tools such as cost-benefit analysis and social welfare functions with Social Security Income, food and Medicare.
- (c) The social welfare in an economy can be maximized at an equilibrium (General Equilibrium).
- (d) Normative Welfare economics is a normative branch of economic theory (What ought to be /should be favorable to people /beneficial to people) that attempts to assess the implications of Economic laws and Economic policy, including market outcomes/profit, for human well-being.
- (e) A theory of social welfare in the developed country, United States is outlined to expose how political and economic forces formulate the structural institutions of social welfare.
- (f) In developing economy, India as a welfare state being a Governance Model in which the state plays a significant role for up gradation of economic and social well-being of people. The equality of opportunity and equal wealth distribution support a welfare state in economy. On the basis of welfare recipients by households, public social expenditure as indicator to recognize country developing and developed status .

CONCLUSION

Welfare economics is to accelerate welfare in the form of economic and social welfare in economy as a whole. In Developed /Developing economy economic forces helps to implement Economic / Business Policy. The expected opportunity and equal wealth distribution support a welfare state. Economic welfare effect prosperity and standard of living of individual and group of persons. Welfare economics, increase the satisfaction in a society, maximizing the producer and consumer surplus for different markets which exist in the society. Economic

surplus is a producer surplus with a consumer Surplus. Consumer Surplus as economic measure through the consumer's willingness to pay for a product is greater than its market price. The producer surplus is the difference between the price at which companies are willing to sell the products and the prices actually get for them involved in social welfare. It is the benefit provided by producers and consumers interacting in a free market. In economics, it is utility gained through the achievement of material goods and services. It is social welfare that can be fulfilled through economic activities for satisfaction. Consumer surplus is a good medium to estimate the value of a product or service consumed by people. It is an important instrument used by Governments in the Marshall System of Welfare Economics, also to formulate tax policies for welfare of people in economy. The existence of producer surplus with equally consumer surplus. India, a welfare state being a good Governance for up gradation of economic and social welfare of masses in sense of spending producer surplus for social security of people in economy and consumer surplus for social satisfaction.

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Dr. Suhasini Parashar born on 17th November, 1962 in Haryana State of India. She is Science Graduate (1982), from DAV College, Ambala City (Kurukshetra University, Kurukshetra) and done M.A. Economics (1984) and Ph.D. in Economics (with Three years 1986-1989, University Research Scholarship) from Department of Economics (1990-1992), Kurukshetra University, Kurukshetra. She is presently, serving as Associate Professor of Economics in Management in Department of Business Administration, Maharaja Surajmal Institute (Since August 2002 joined as Lecturer and August 2007 onwards as Reader and January 2021 onwards re-designated as Associate Professor), so far has the experience of 28 years in teachings in colleges/Institutes of Kurukshetra University, Kurukshetra, Delhi University, Delhi and Guru Gobind Singh Indra Prastha University, Delhi with, 5 years Research Experience. She is specialized in teachings of subject Economics, Indian Economy, Business Economics, Business Environment, Money and Banking. She is continuously have interest with writings in area of Economics and Business

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