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Topic- Theory of consumer behaviour

THEORY OF CONSUMER BEHAVIOUR

1. Introduction

The theory of consumer behaviour examines how individuals make decisions to allocate their limited income among various goods and services in order to maximize their satisfaction or utility. It is one of the foundational concepts in microeconomics and helps to understand demand, market equilibrium, and price determination.

Consumer behaviour is based on the assumption that consumers are rational and aim to get the highest possible satisfaction (utility) from their expenditure, given their income and the prices of goods.

2. Meaning of Consumer Behaviour

Consumer behaviour refers to the study of how individuals or households make choices about the consumption of goods and services. It includes:

• What goods are purchased

- How much is purchased
- How often purchases are made
- Why consumers prefer one good over another

The theory provides the basis for the law of demand, explaining the inverse relationship between price and quantity demanded.

3. Basic Assumptions of Consumer Behaviour

- Rationality: Consumers aim to maximize their satisfaction within their income constraints.
- **Utility is measurable or comparable:** Depending on the approach (cardinal or ordinal), utility can be measured or ranked.
- **Diminishing marginal utility:** As consumption of a good increases, the additional satisfaction derived from each extra unit decreases.
- **Limited income:** Consumers face a budget constraint.
- Constant tastes and preferences: Preferences remain stable during analysis.
- **Perfect knowledge:** Consumers are aware of the prices and quality of goods.

4. Approaches to Consumer Behaviour

There are two main approaches used to explain consumer behaviour:

A. Cardinal Utility Approach (Marshallian Approach)

Developed by Alfred Marshall, this approach assumes that utility can be measured in cardinal numbers (like 1, 2, 3, etc.) — similar to physical quantities.

Main Concepts:

1. Total Utility (TU):

The total satisfaction obtained from consuming a given quantity of goods.

$$TU = U1 + U2 + U3 + \dots + Un$$

2. Marginal Utility (MU):

The additional satisfaction obtained from consuming one more unit of a good.

$$MU = \frac{Delta TU}{Delta Q}$$

3. Law of Diminishing Marginal Utility:

As more units of a good are consumed, the extra satisfaction (MU) derived from each additional unit declines.

Units of Good Total Utility Marginal Utility

- 1 20 20
- 2 38 18
- 3 54 16

- 4 68 14
- 5 80 12
- → Here, as consumption increases, MU falls.

4. Consumer Equilibrium (Cardinal):

A consumer attains equilibrium when the ratio of marginal utilities to prices of goods is equal for all goods and equals the marginal utility of money.

MUx/Px = MUy/Py = MUm

Limitations of Cardinal Utility:

- Utility cannot be measured quantitatively.
- Assumes constant marginal utility of money.
- Ignores interdependence among goods.

B. Ordinal Utility Approach (Indifference Curve Analysis)

Developed by J.R. Hicks and R.G.D. Allen, this approach assumes that utility cannot be measured, only ranked or ordered. Consumers can say which combination of goods they prefer but not by how much.

Key Concepts:

1. Indifference Curve (IC):

A curve showing all combinations of two goods that give equal satisfaction to the consumer.

→ All points on the same IC represent equal utility.

Properties of ICs:

- Downward sloping.
- Convex to the origin (due to diminishing marginal rate of substitution).
- Higher ICs show higher levels of satisfaction.
- ICs never intersect.

2. Marginal Rate of Substitution (MRS):

The rate at which a consumer is willing to give up one good for another while maintaining the same level of satisfaction.

$$MRSxy = -\delta Y/\delta X$$

3. Budget Line (Price Line):

Represents all combinations of two goods that a consumer can buy with given income and prices.

$$\mathbf{P}\mathbf{x}\ \mathbf{X} + \mathbf{P}\mathbf{y}\ \mathbf{Y} = \mathbf{M}$$

4. Consumer Equilibrium (Ordinal):

The consumer is in equilibrium when the budget line is tangent to an indifference curve.

MRSxy = Px/Py

Superiority over Cardinal Approach:

- Utility need not be measured.
- Considers substitution between goods.
- Based on realistic assumptions.

5. Revealed Preference Theory (Samuelson, 1948)

This theory was developed by Paul Samuelson as an alternative to utility analysis.

It is based on observed choices rather than hypothetical satisfaction.

Key Ideas:

If a consumer chooses combination A over B when both are affordable, A is revealed to be preferred to B.

If in another situation B is chosen when A is unaffordable, this behaviour can be explained without using the concept of utility.

Assumptions:

• Rational behaviour.

• Consistency in choice (if A is preferred to B, then B cannot be preferred to A).

• Given income and prices.

This approach avoids psychological concepts like utility and focuses purely on market behaviour.

6. Theory of Demand and Consumer Equilibrium

Consumer behaviour forms the foundation of the demand curve.

From the law of diminishing marginal utility, the consumer buys more only at lower prices \rightarrow downward sloping demand curve.

From indifference curve analysis, a fall in the price of a good expands the consumer's equilibrium point, leading to an increase in quantity demanded — again resulting in a negatively sloped demand curve.

7. Consumer Surplus

Proposed by Alfred Marshall, consumer surplus is the difference between what a consumer is willing to pay and what they actually pay.

Consumer Surplus = Total Utility - Total Expenditure

Example:

If a consumer is willing to pay ₹100 for a good but buys it at ₹70, then consumer surplus = ₹30.

It measures the extra satisfaction gained from market transactions.

10. Conclusion

The theory of consumer behaviour offers a systematic explanation of how consumers allocate their income among different goods and services to maximize satisfaction. While early cardinal utility theory was limited, the indifference curve and revealed preference approaches provided more realistic and behaviour-based foundations.

Together, these theories explain the law of demand, help derive the consumer equilibrium condition, and guide both economic theory and practical market applications.