SNS COLLEGE OF TECHNOLOGY

An Autonomous Institution
Coimbatore-35

Department of Management Studies

23BBT603 – Managerial Economics

I MBA / I SEMESTER

UNIT I : Fundamentals of Business Economics

Topic: Utility Analysis

Introduction

- Utility means **satisfaction** or **pleasure** derived from consuming a product or service.

- It is a **psychological concept**—it differs from person to person.

Example: A cup of coffee gives more utility to a coffee lover than to a tea drinker.

Meaning of Utility

- Utility means the **capacity of a good or service to satisfy human wants.**
- It does not mean usefulness — even harmful goods like cigarettes have utility for some consumers.
- It forms the **basis of consumer demand** and helps explain why people buy products.

Types of Utility (Based on Measurement)

- **Cardinal Utility –** Utility can be **measured numerically** (in utils).
- **Ordinal Utility –** Utility cannot be measured, but can be **ranked in order** of preference.

Types of Utility (Based on Source)

Type of Utility	Meaning	Example
Form Utility	Created by changing the form of goods	Cotton → Cloth
Place Utility	Created by transporting goods to needed places	Rice from villages to cities
Time Utility	Created by storing goods until demanded	Cold storage of fruits
Possession Utility	Created by transferring ownership	Selling a car

Types of Utility (Based on Measurement)

- ✓ **Cardinal Utility –** Utility can be **measured numerically** (in ‘utils’).
- ✓ **Ordinal Utility –** Utility cannot be measured but can be **ranked in order of preference**.
- ✓ **Total Utility (TU) –** The total satisfaction from consuming all units of a product.
- ✓ **Marginal Utility (MU) –** The additional satisfaction from consuming one more unit.

Cardinal Utility Approach

- Introduced by **Alfred Marshall**.
- Assumes utility can be measured in **absolute numbers (utils)**.
- Consumers aim to **maximize total utility** within their income limit.
- Useful for deriving the **Law of Diminishing Marginal Utility (DMU)**.

Example:
If 1 chocolate gives 10 utils and 2 chocolates give 18 utils,
then MU of 2nd chocolate = 8 utils.

Law of Diminishing Marginal Utility

Statement:
As more units of a commodity are consumed, the **additional satisfaction (MU)** from each extra unit **declines**.

Example:

- The 1st slice of pizza gives high satisfaction.
- The 2nd gives less, and the 5th may give no satisfaction at all.

Assumptions of the Law

1) Units consumed are homogeneous.
2) Continuous consumption without long gaps.
3) Rational behavior of the consumer.
4) Constant income and tastes during the process.
5) Measurable utility in cardinal terms.

Importance of the Law

- Explains **consumer equilibrium.**
- Foundation for the **Law of Demand.**
- Basis for **pricing and taxation policies.**
- Helps in **marketing and product diversification** decisions.
- Used in **public finance** to justify progressive taxation.

Ordinal Utility Approach

- Developed by **Hicks and Allen**.
- Utility is **ranked** (1st preference, 2nd preference, etc.) rather than measured.
- Uses **indifference curve analysis** to explain consumer choice.
- More realistic than the cardinal approach.

EXAMPLES OF ORDINAL UTILITY

EXAMPLE 1

EXAMPLE 2

Consumer Equilibrium

A consumer reaches equilibrium when:

$$\frac{MU_x}{P_x} = \frac{MU_y}{P_y} = MU_m$$

Meaning: Satisfaction per rupee spent is equal across all goods.

No need to rearrange spending — the consumer is fully satisfied.

Design Thinking Connection

In Design Thinking, **utility** reflects user satisfaction and value perception.

- **Empathize:** Understand what gives real satisfaction to the user.
- **Ideate & Prototype:** Design solutions that maximize perceived utility.

Example: A food delivery app improves utility by ensuring faster delivery and freshness.

AI Relevance

- AI helps measure and predict utility using data:
- Personalized recommendations enhance user satisfaction (Netflix, Amazon).
- Customer analytics predicts utility preferences.
- Behavioral models optimize pricing for maximum satisfaction.

Summary

- ✓ Utility = Satisfaction derived from consumption.
- ✓ Two major approaches: Cardinal and Ordinal.
- ✓ Law of Diminishing Marginal Utility explains decreasing satisfaction.
- ✓ Utility theory forms the foundation of consumer demand and pricing strategies.

References

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Thank you!