Introduction to Product Cannibalization

Definition:

- Product cannibalization occurs when a company's new product eats into the sales or market share of its existing products rather than generating additional demand.

Example:

- When Apple launches a new iPhone, it often reduces sales of previous models — that's controlled cannibalization.

Nature of Cannibalization:

- It is not always negative; if managed strategically, it helps retain customers within the brand ecosystem.

Importance of Analysis:

- Understanding cannibalization helps businesses design better pricing, timing, and positioning strategies for new products.

Causes and Scenarios of Product Cannibalization

1. Overlapping Product Features: When two products serve similar needs or target the same customer group.
2. Price Reductions and Promotions: Discounted or low-priced variants divert buyers from higher-margin offerings.
3. Poor Market Segmentation: Lack of differentiation in product design or messaging.
4. Rapid Product Line Expansion: Introducing too many versions (flavors, models, SKUs) can dilute sales.
5. Example: A new detergent variant launched for “premium fragrance” reduces sales of the standard version within the same brand.

Measuring Product Cannibalization

- Sales Trend Analysis:
  - Compare pre- and post-launch sales of existing products to detect internal substitution.
- Cross-Elasticity of Demand:
  - Measures how the sales of one product respond to price changes in another within the same brand.
- Conjoint and Regression Analysis:
  - Helps identify customer preferences and estimate the share of switchers between products.
- Market Share and Revenue Mix Tracking:
  - Analyzes changes in portfolio-level sales and contribution margins.
- Example Metric:

$$\text{Cannibalization } Rate = \frac{Sales\ Lost\ from\ Existing\ Products}{Sales\ of\ New\ Product} \times 100$$

Portfolio Optimization – Concept and Techniques

- Definition: Portfolio optimization involves managing a firm's product lineup to maximize total profitability while minimizing cannibalization and inefficiencies.
- Objective:
  - Balance between innovation and profitability.
  - Identify which products to promote, maintain, or discontinue.
- Analytical Techniques:
  - Profit Contribution Analysis: Evaluate each product's margin and market share.
  - Product Lifecycle Analysis: Align marketing spend with product maturity.
  - Simulation Models: Forecast the impact of new product launches on existing lines.
  - Cluster and Optimization Models: Group products by performance to guide strategic decisions.

Strategic Implications and Managerial Actions

Controlled Cannibalization:

Launching new products that replace older ones intentionally to keep the brand modern (e.g., smartphone updates).

Product Line Rationalization:

Eliminate underperforming or overlapping SKUs to improve efficiency.

Price and Positioning Strategy:

Differentiate products clearly by segment and value proposition.

Innovation and R&D Allocation:

Focus on products with strong future potential and unique market appeal.

Outcome:

Higher profitability, reduced internal competition, and a balanced, growth-oriented product portfolio.