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### 1. **Stochastic Model**

Features:

- Randomness and Uncertainty: Stochastic models involve different uncertainty processes and involve randomness.
- Probability representation: This model uses probability distributions to express uncertainty.
- Simulation technology: Simulation technology is often used to simulate real-world events.
- Actual integration: Refers to situations where real-world events interact with unseen elements.

Example: Stochastic models in inventory management can improve inventory control when the demand pattern is unknown.

### 2. **Dynamic Models**

Features:

- Time Dependency: Dynamic Models reflect how change occurs by capturing change in a system over time.
- Impact on future situation: A decision affects the future situation.
- Constantly updated: This model evolves with the system and constantly adapts to changes.

Application: Used for project management to dynamically change the design and dependencies and facilitate changes as the project progresses.

### 3. **Deterministic Model**

Features:

- Known Parameters: It is based on the assumption that all input parameters are known deterministically, not randomly.
- Solutions: Provide simple solutions without having to think about changes.

Application: Ideal for situations where there is no doubt or uncertainty and simple decision making.

Example: Linear programming helps allocate resources with a known level of importance.

#### **4. Predictive Models**

Features:

- Historical data progression: These models use historical data and patterns to predict future outcomes.
- Pattern Recognition: They identify patterns and behaviors to predict the future.

Applications: Widely used in sales forecasting, financial analysis, and other fields where future predictions are important for decision making.

#### **5. Analytical Model**

Features:

- Use of mathematical models: Analytical models use mathematical equations to represent and understand complex processes.

- Quantitative analysis: Provides a quantitative understanding of the research process.

Application: Mainly used in research such as operations research, queuing research, optimization problems and decision making.

Example: Queuing theory is an analytical tool for analyzing the efficiency of service delivery, control of waiting time, and resource utilization.