



Advanced Planning Systems: A Design Thinking Case Study

This case study explores the design thinking approach to implementing Advanced Planning Systems (APS) in a real-world setting.

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Recap: Supply Chain Analytics

1 Supply Chain Optimization

Previous sessions introduced concepts of supply chain optimization, including demand forecasting, inventory management, and network design.

3 Key Metrics

We emphasized the importance of tracking key performance indicators (KPIs) to measure the success of supply chain strategies.

2 Data-Driven Decisions

We discussed how data analytics can empower better decision-making in supply chain operations, leading to improved efficiency and cost reduction.

4 Challenges and Opportunities

We explored the challenges and opportunities presented by the dynamic and interconnected nature of global supply chains.



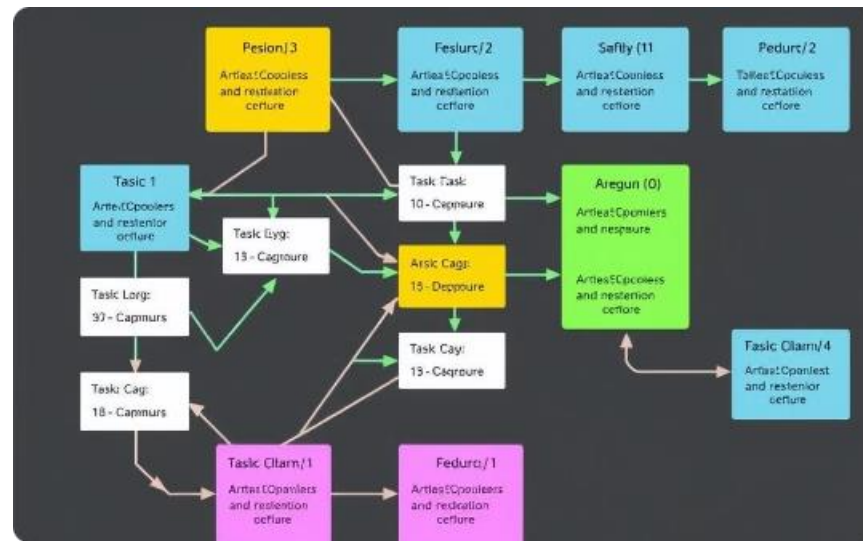


Guess the Topic



Network Planning

APS helps optimize the entire supply chain network, including manufacturing facilities, distribution centers, and transportation routes.



Production Planning

APS facilitates the creation of detailed production plans, considering capacity constraints, material availability, and customer demand.



Demand Forecasting

APS utilizes advanced algorithms to predict future demand, enabling businesses to proactively adjust production and inventory levels.



Real-Life Case Studies: APS Implementation in Diverse Industries

Automotive Industry

Toyota and BMW use APS to optimize production schedules, manage global supply chains, and meet fluctuating demand for vehicles.

Retail Industry

Walmart and Amazon leverage APS to forecast demand, manage inventory levels, and ensure efficient delivery of products to consumers.

Pharmaceutical Industry

Pfizer and GlaxoSmithKline utilize APS to manage complex production processes, ensure compliance with regulations, and meet global demand for medicines.



Hands-on Exercise: Applying APS Concepts to a Hypothetical Scenario

1

Scenario

Imagine a hypothetical scenario where a small-scale food processing company faces challenges in meeting seasonal demand fluctuations.

2

APS Solution

Discuss how APS could be used to optimize production planning, inventory management, and distribution to address these challenges.

3

Implementation Steps

Identify key data requirements, potential software solutions, and the expected benefits of implementing APS in this context.





Action



Facution



Reacture



Practing



Navitlage



Anistura



Padclity

CHALLENGES



APS

Benefits and Challenges of Implementing APS

Improved Planning Accuracy

Enhanced Supply Chain Visibility

Reduced Inventory Levels

Increased Profitability

High Implementation Costs

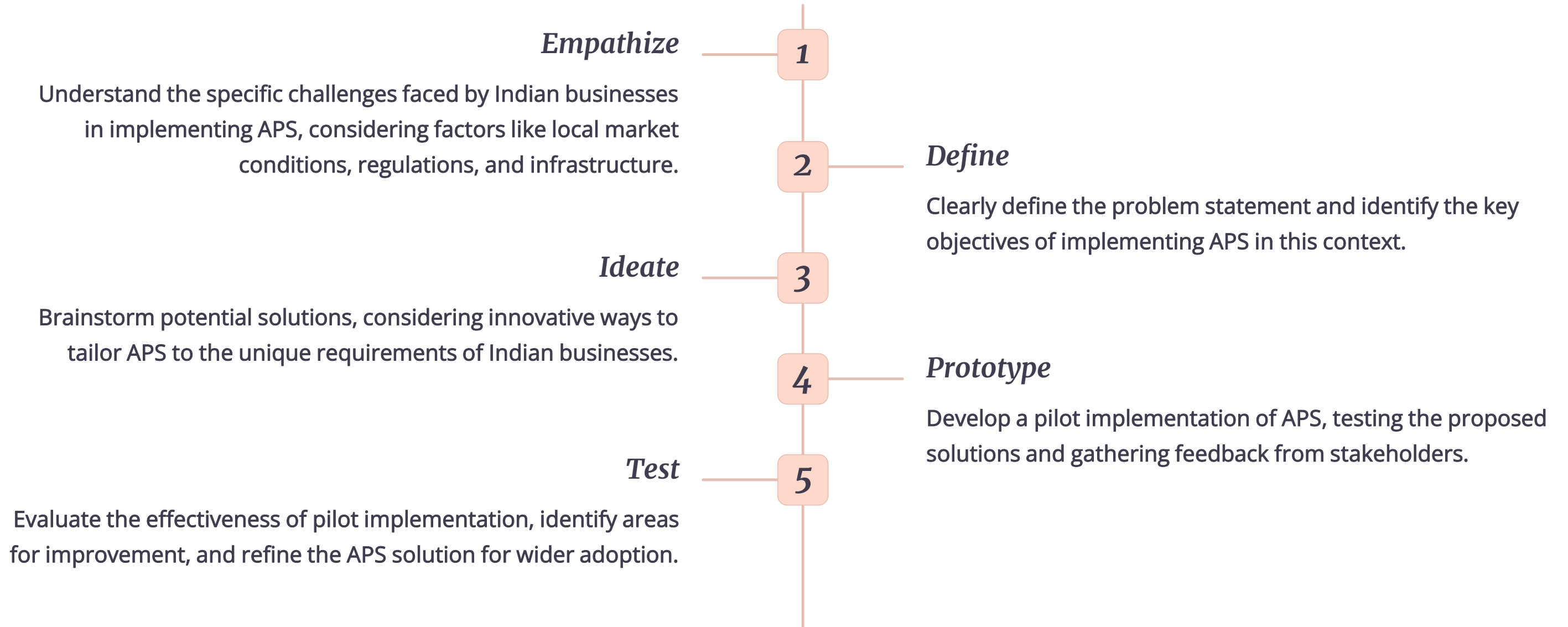
Complex Data Integration

Resistance to Change

Lack of Skilled Personnel



Design Thinking Application: Optimizing APS for Indian Businesses





Test Your Knowledge: Quiz on Key APS Principles



What are the key components of APS?



How does APS improve supply chain visibility?



What are the benefits of implementing APS?



What are the potential challenges of implementing APS?





Test Your Knowledge: Quiz on Key APS Principles



What are the key components of APS?

Demand planning, production planning, inventory optimization, transportation management, and supply chain collaboration.



What are the benefits of implementing APS?

Improved planning accuracy, reduced inventory levels, increased profitability, and better customer satisfaction.



How does APS improve supply chain visibility?

By providing real-time data on inventory levels, production progress, and transportation status, enabling informed decision-making.



What are the potential challenges of implementing APS?

High implementation costs, data integration complexities, resistance to change, and the need for skilled personnel.





Summary and Conclusion: Key Takeaways and Future Trends

APS Benefits

APS provides a powerful tool for improving supply chain efficiency, reducing costs, and enhancing responsiveness to market demands.

Design Thinking Approach

Applying design thinking principles can facilitate successful implementation of APS, addressing the unique needs of Indian businesses.

Future Trends

The future of APS involves integration with artificial intelligence, machine learning, and blockchain technologies to further optimize supply chains.



References: Books and Online Resources

- Supply Chain Management: A Logistics Perspective by Sunil Chopra and Peter Meindl
- Advanced Planning Systems: A Practical Guide by John Gattorna
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Supply Chain Management