

Strategic and Operational Planning Problems Along the SC

Manufacturing

- ▶ Where to place facilities?
- ▶ How much capacity by product/line?
- ▶ MTO, BTO, MTS?
- ▶ Better throughput variations?
- ▶ Alternate inventory strategies?

Transportation

- ▶ Which transport modes, lanes, ports?
- ▶ Where to locate hubs?

Distribution

- ▶ Where to stock?
- ▶ Postponement?
- ▶ Where and what quantity?
- ▶ New suppliers?

Sales

- ▶ What products, pricing, and customers?
- ▶ Channels vs. direct?
- ▶ New market areas?
- ▶ Projections

To remain competitive companies need:

▶ Flexible supply chains

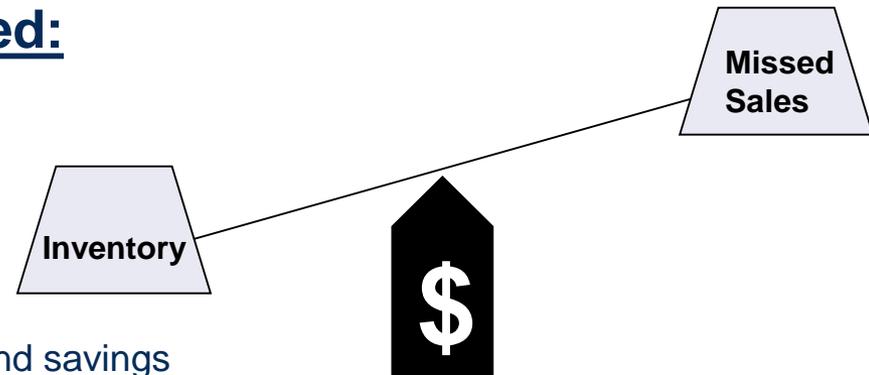
- to quickly respond to a constantly changing market environment

▶ Efficient supply chains

- to achieve overall cost reductions and savings

▶ To analyze their supply chains holistically

- when planning and making strategic decisions on their supply chain



Material price fluctuations

Demand fluctuation and seasonality

Customs delays

Strikes

Variation of delivery times

Energy shocks impact transportation costs

Component availability

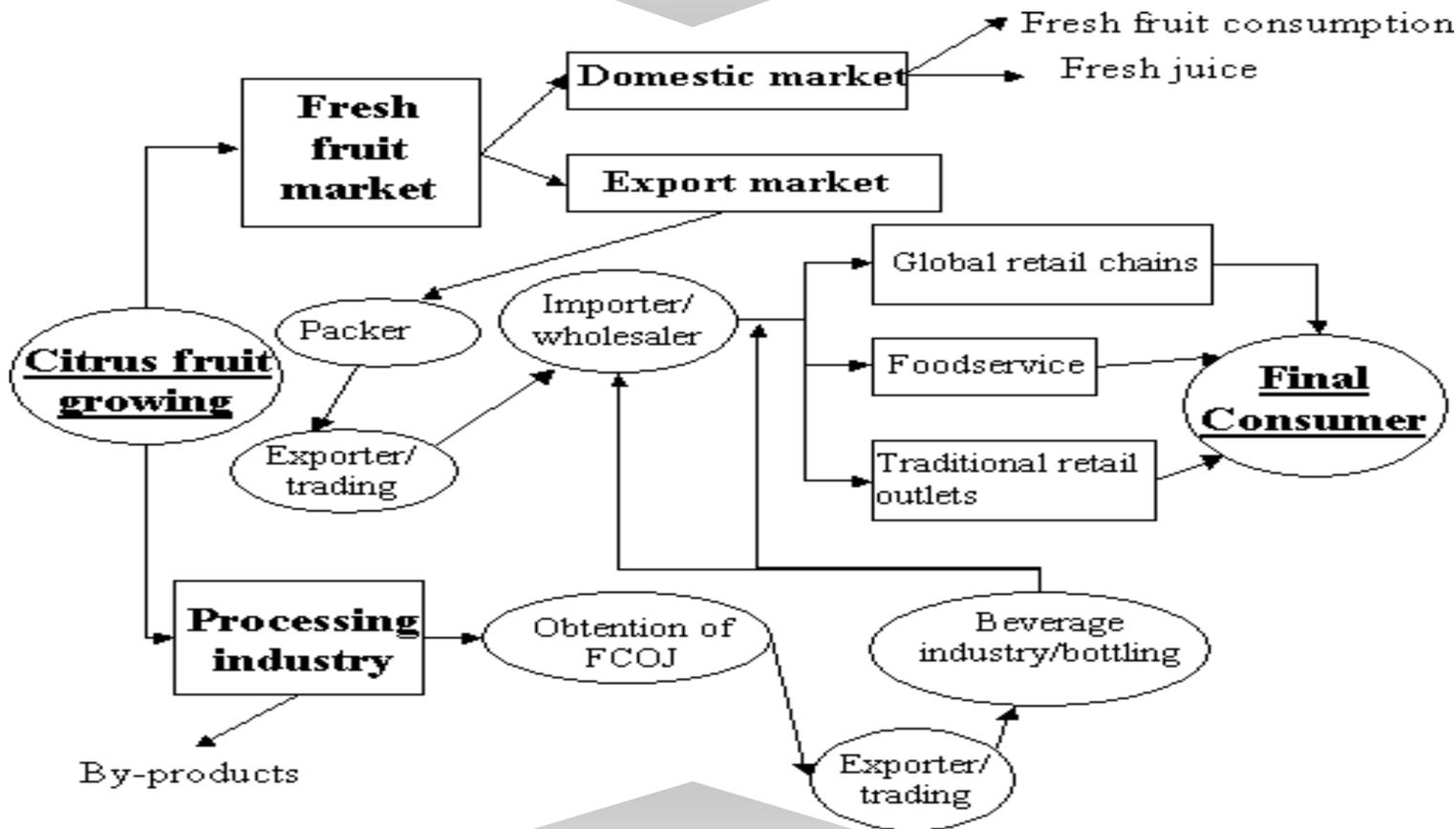
Changes in tax codes

Currency fluctuations

Changes in duties, customs

Labor costs escalations

Macro Factors



Micro Factors

Inbound variations

Order processing

Cost pressures

Capacity constraints

Changes in supply chain networks

Shorter product life cycle

Poor serviceability

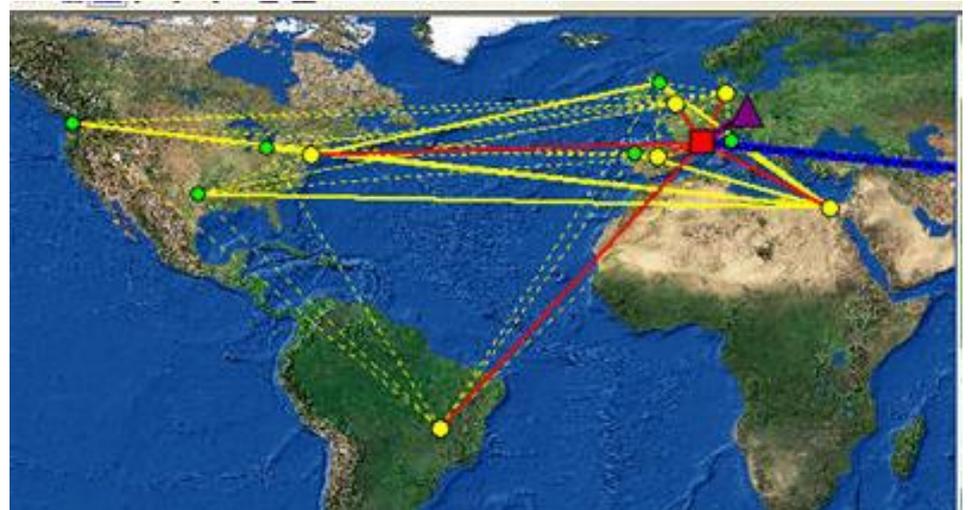
Production constraints

Forecast errors

Suppliers' constraints

Benefits

1. Reduce costs and increase customer service.
2. Improve corporate agility and capabilities by testing changes on the computer model before implementing them.
3. Manage the effects of time and randomness on your supply chain.
4. Identify new opportunities for improvement by performing what-if analysis on the integrated supply chain.
5. Synchronization of the supply chain with consumer demand
6. Implement effective inventory policies to reduce cost and improve efficiency
7. Radically cut project time lines and costs.
8. Shift project time from model-building to supply chain analysis.
9. Greatly improve productivity of supply chain project teams.
10. Network optimization (lean)
11. Inventory planning



Goals

- Provide the tools and industry expertise
- Increase efficiency and productivity
- Strengthen the competitive position and customer satisfaction rate
- **Positively impact the profitability and operational success of your organization**