

Supply Chain Management

Module 14
July 28, 2014

A large black left bracket and a large yellow right bracket are positioned at the top of the slide. A horizontal line with a yellow-to-white gradient runs across the slide, starting from the left bracket and ending at the right bracket.

■ Supply Chain Management

- What is it?
- Why is it important?
- What is a supply chain?

■ Examples of companies doing well at SCM

What is Supply Chain Management (SCM)?

- process of planning, implementing, and controlling the flow/storage of goods and information from point of origin to point of consumption

Why is SCM important?

- Estimated that the grocery industry could save \$30 billion (10% of operating cost) by using effective logistics and supply chain strategies

- How long does a typical box of cereal spend from factory to sale? **104 days**



- A typical car spend from factory to dealership? **15 days**

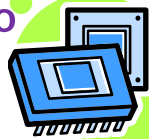


Why is SCM important?

- Compaq estimates it lost \$.5 billion to \$1 billion in sales in 1995 because laptops were not available when and where needed



- When the 1 gig processor was introduced by AMD, the price of the 800 mb processor dropped by 30%



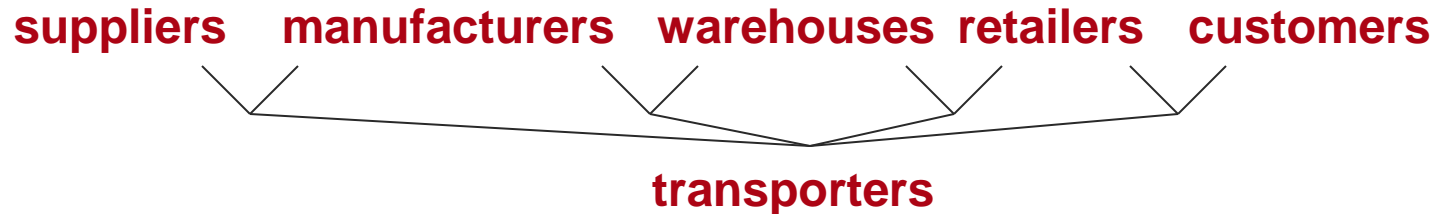
- P&G estimates it saved retail customers \$65 million by collaboration resulting in a better match of supply and demand



Primary purposes:

What is a Supply Chain?

- All stages involved, directly or indirectly, in fulfilling a customer request



- Includes all functions involved at each stage
 - **product development, marketing, operations, distribution, finance, customer service,...**



Example



Retailers



Example

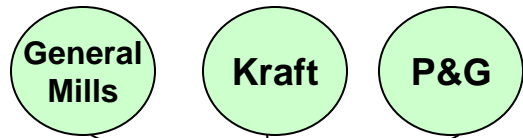
Distributors



Retailers



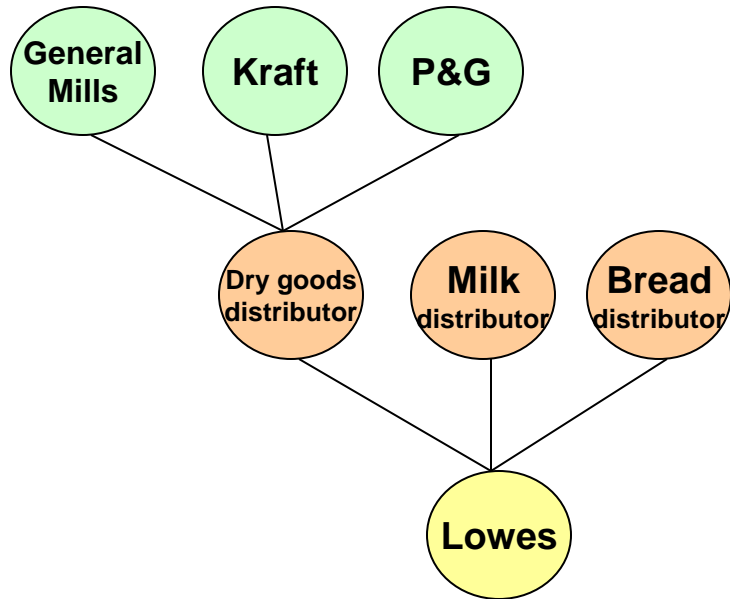
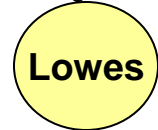
Manufacturers



Distributors



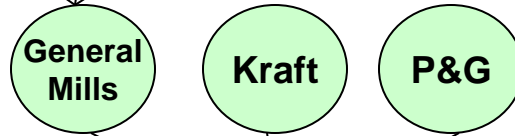
Retailers



Suppliers



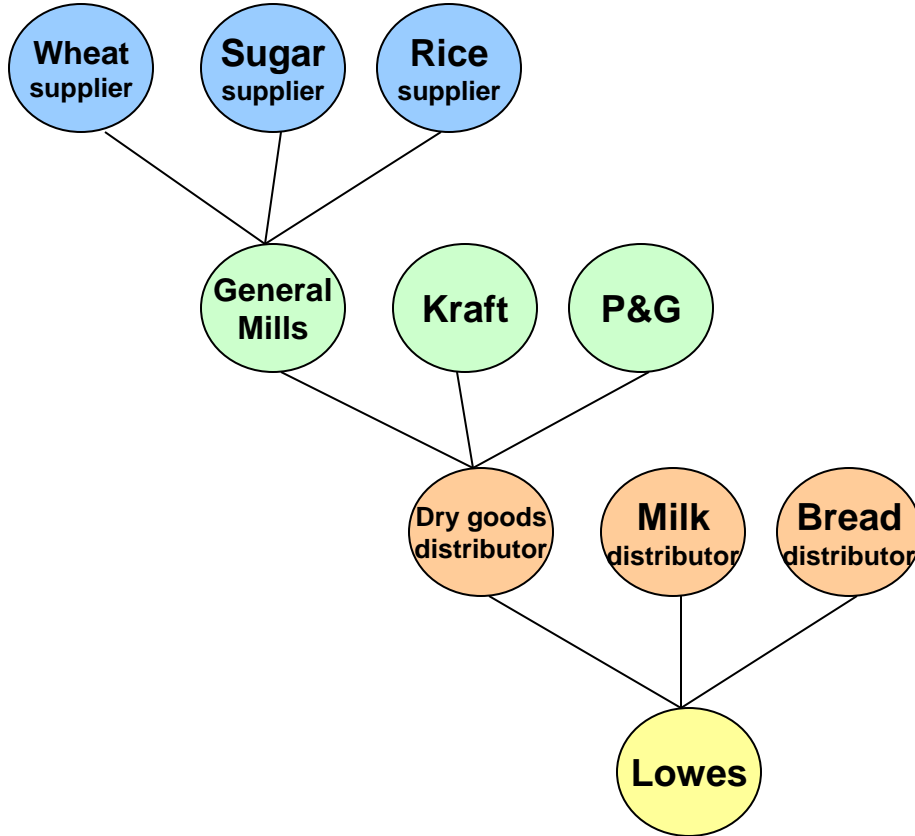
Manufacturers



Distributors



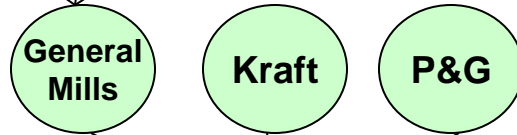
Retailers



Suppliers



Manufacturers



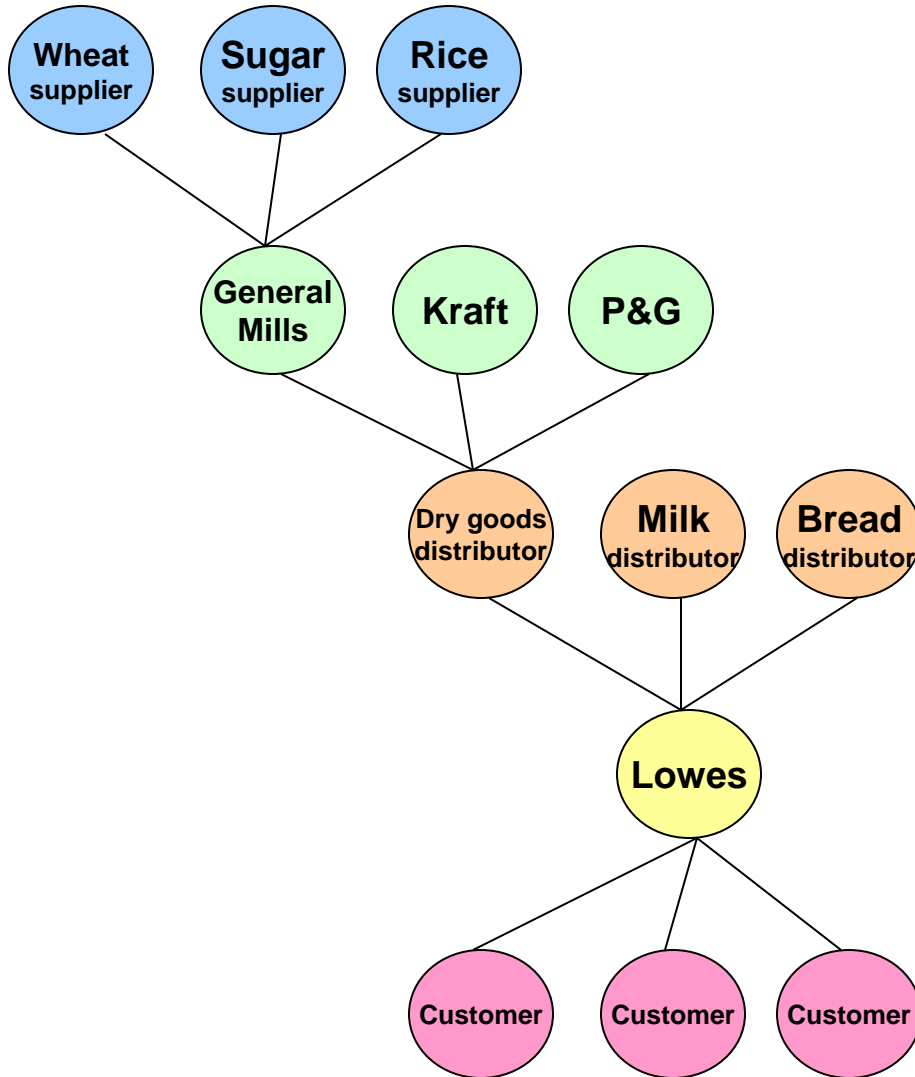
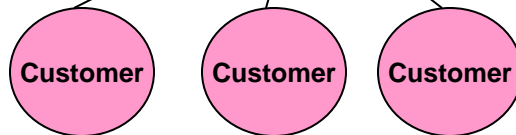
Distributors



Retailers



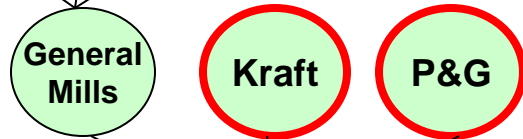
Customers



Suppliers



Manufacturers



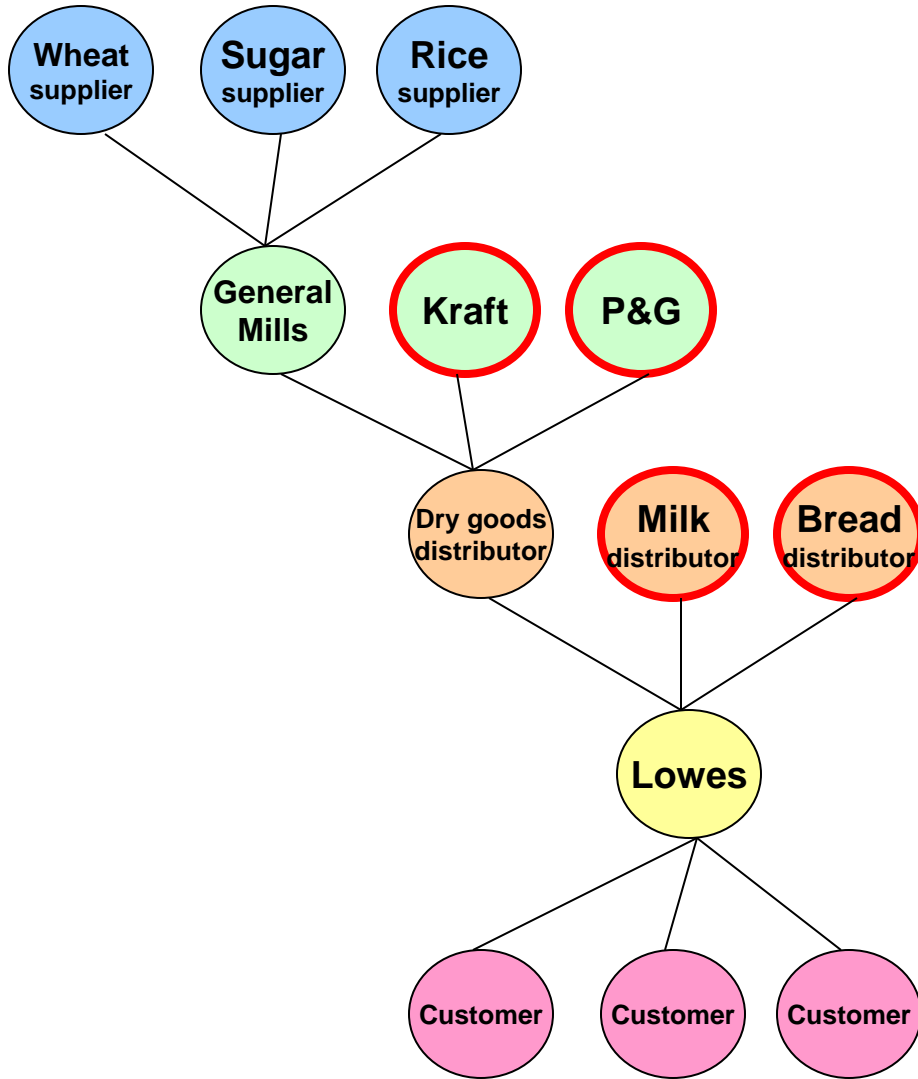
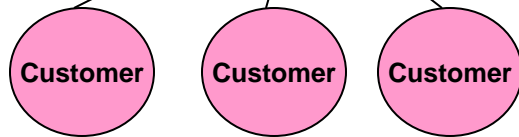
Distributors

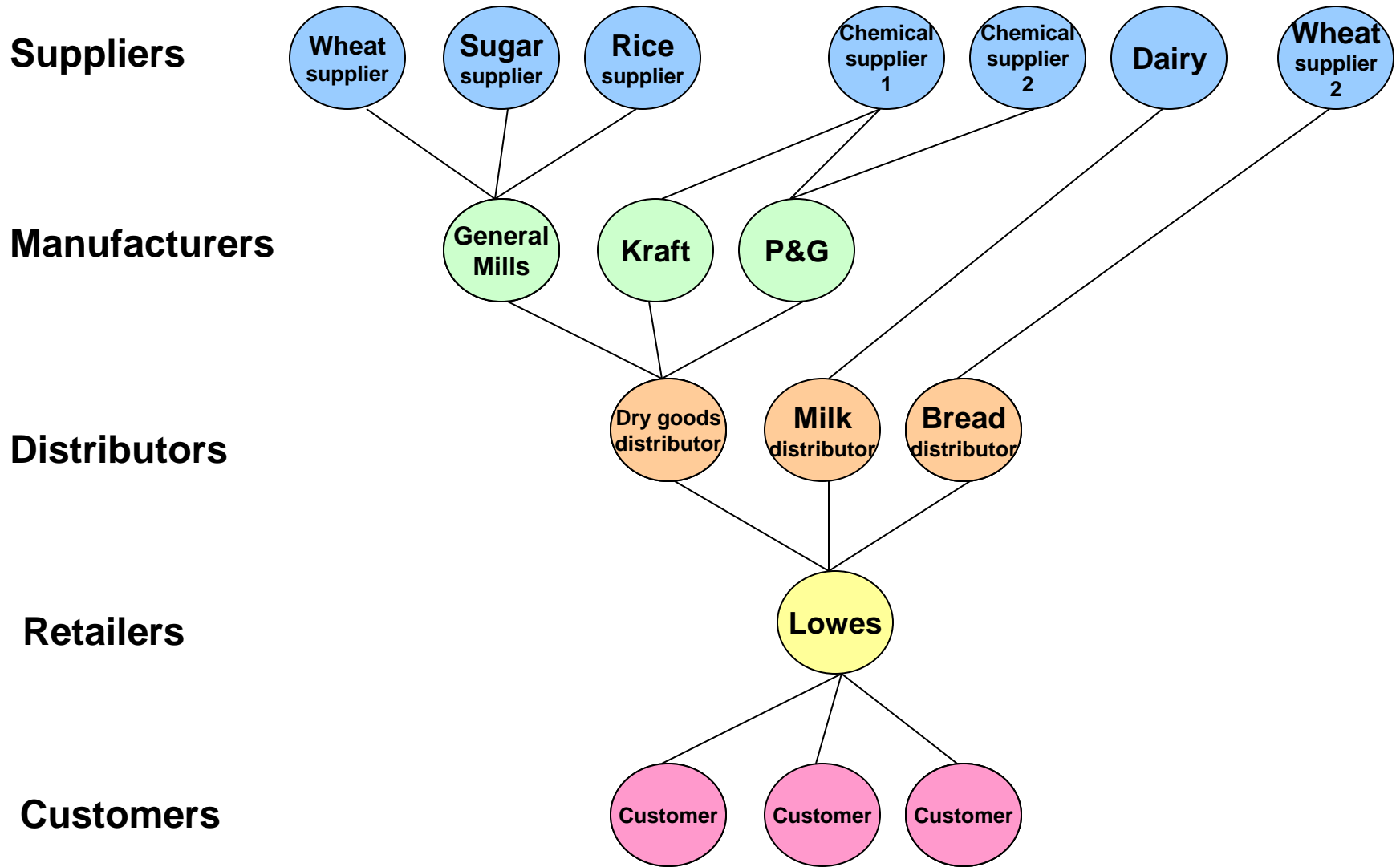


Retailers



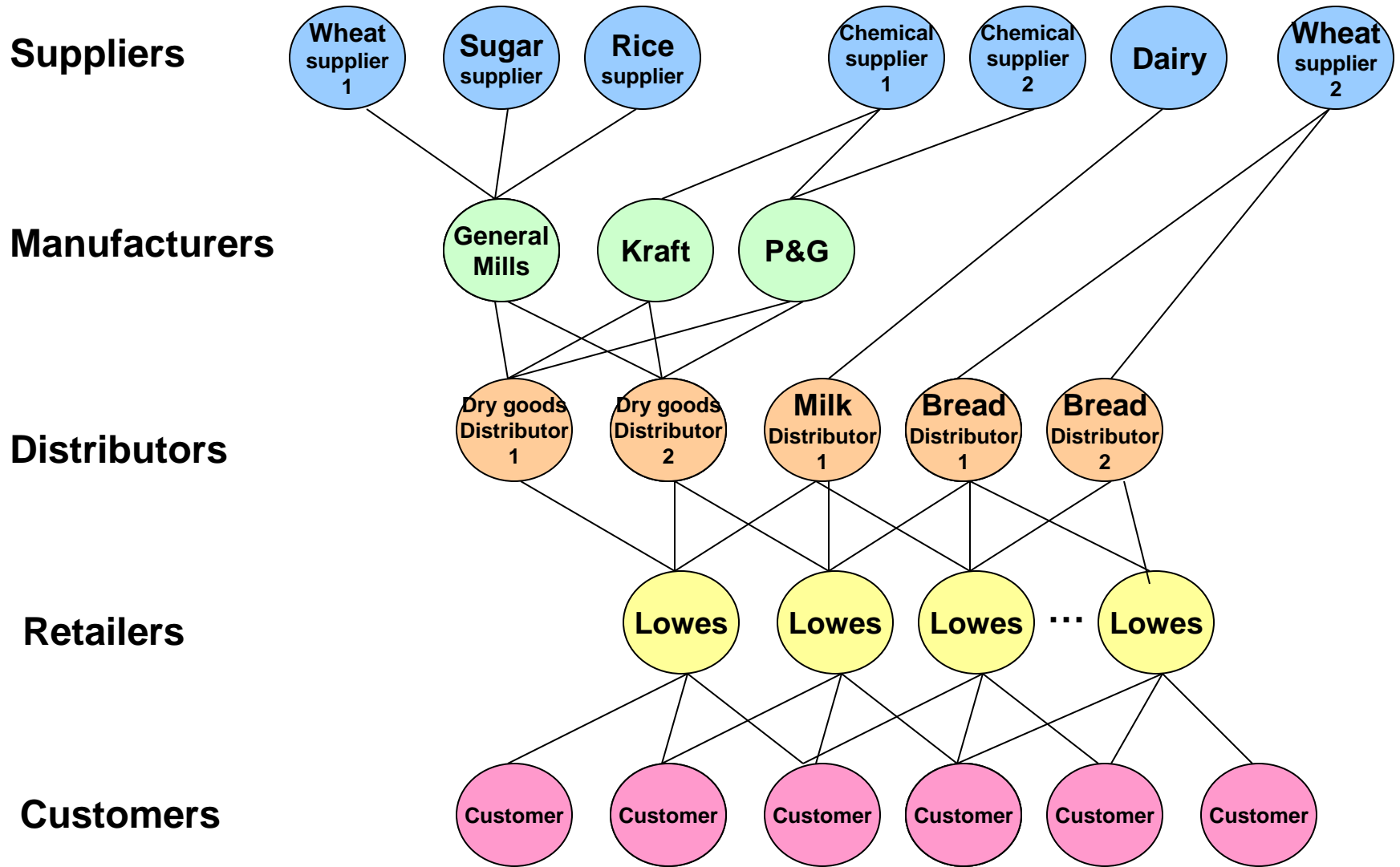
Customers



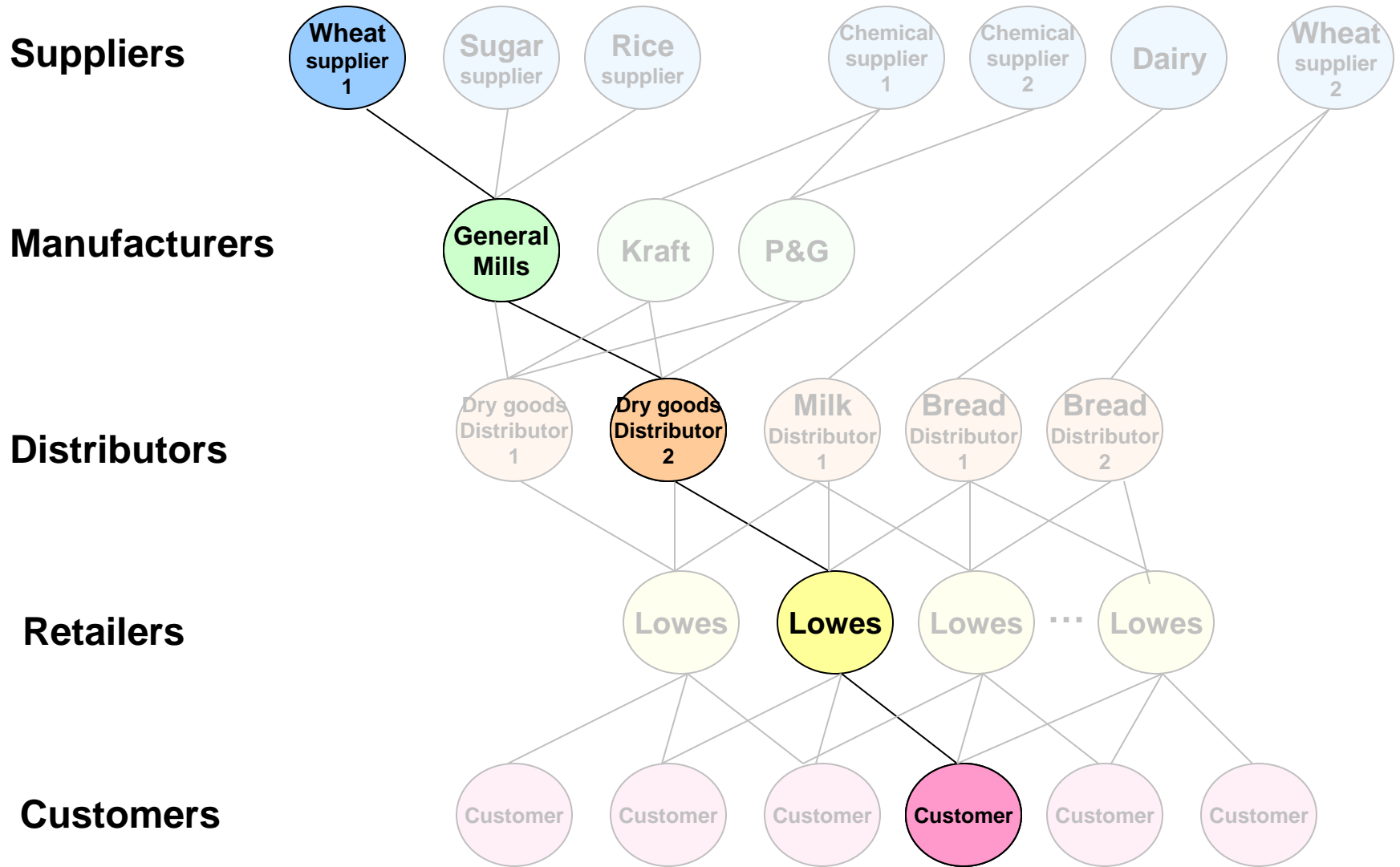


Obviously Lowes corp. has more than one store...

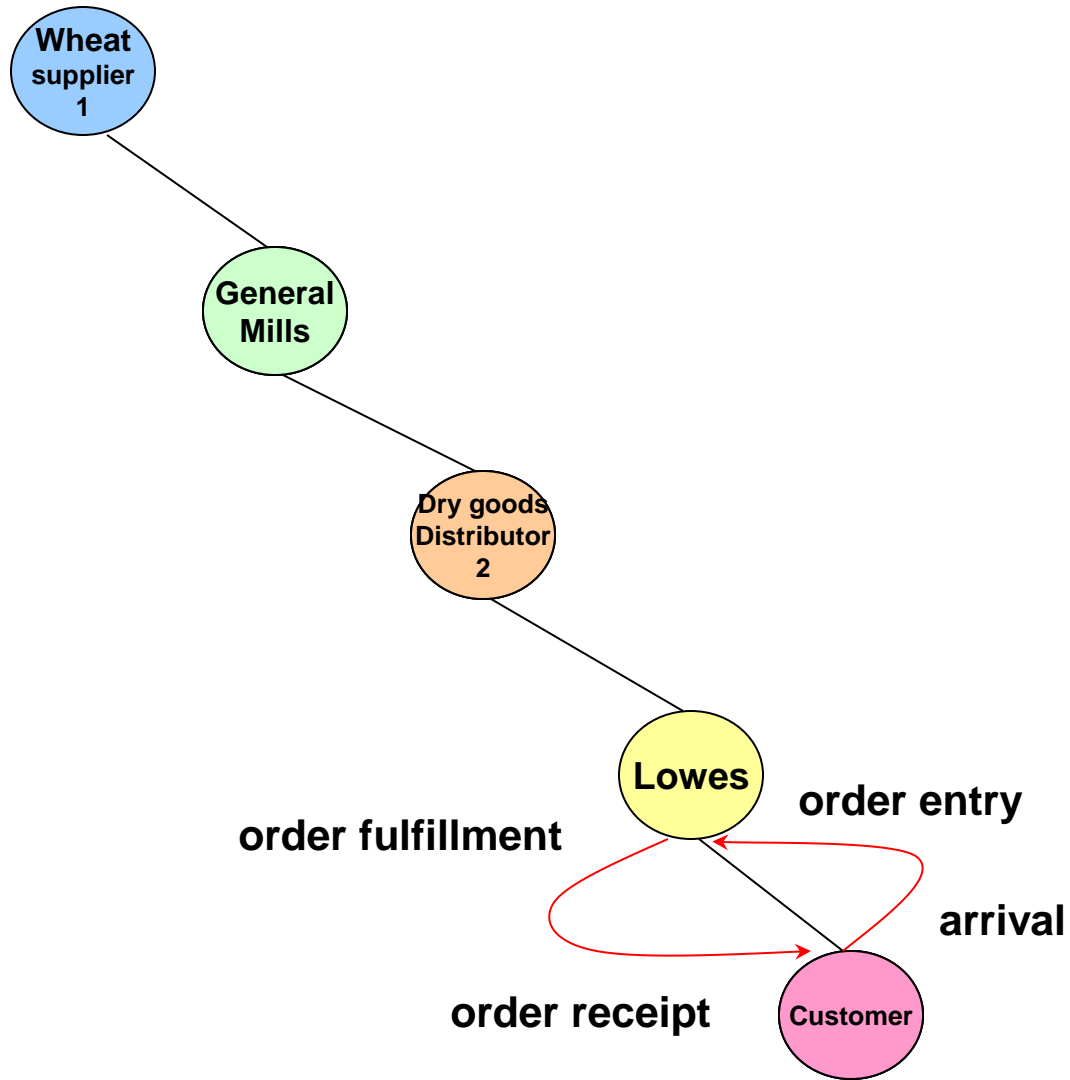
What happens at the interfaces?



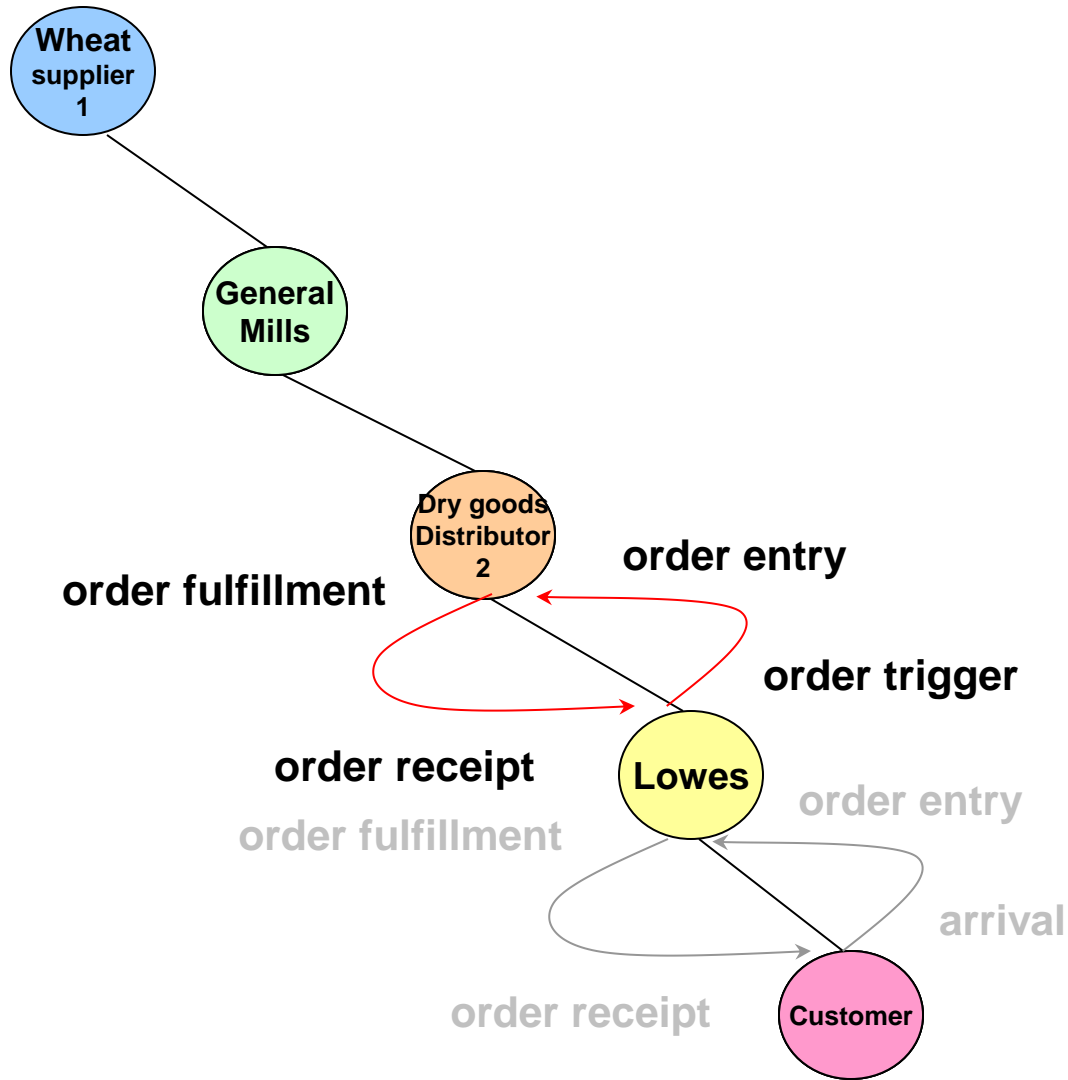
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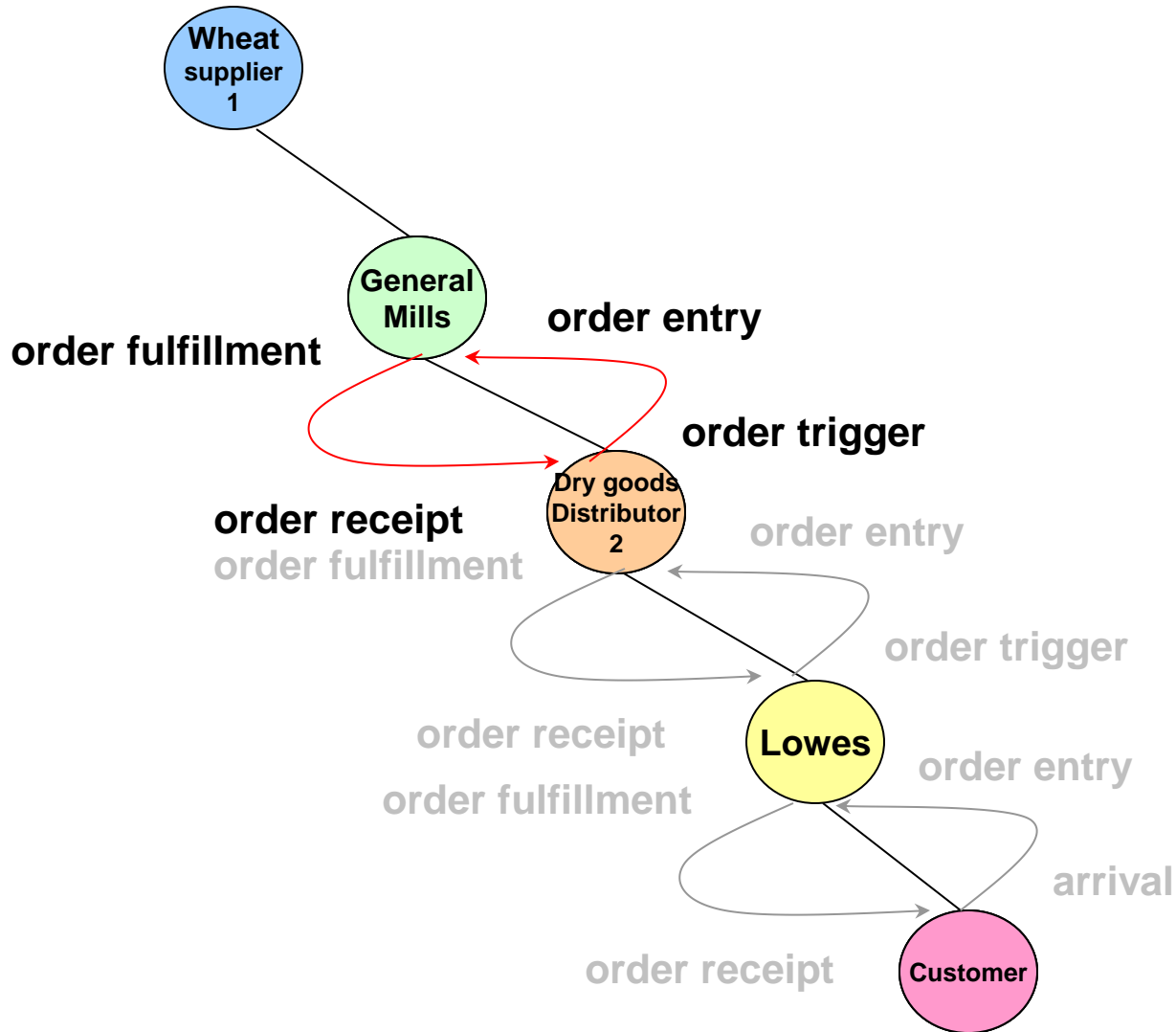
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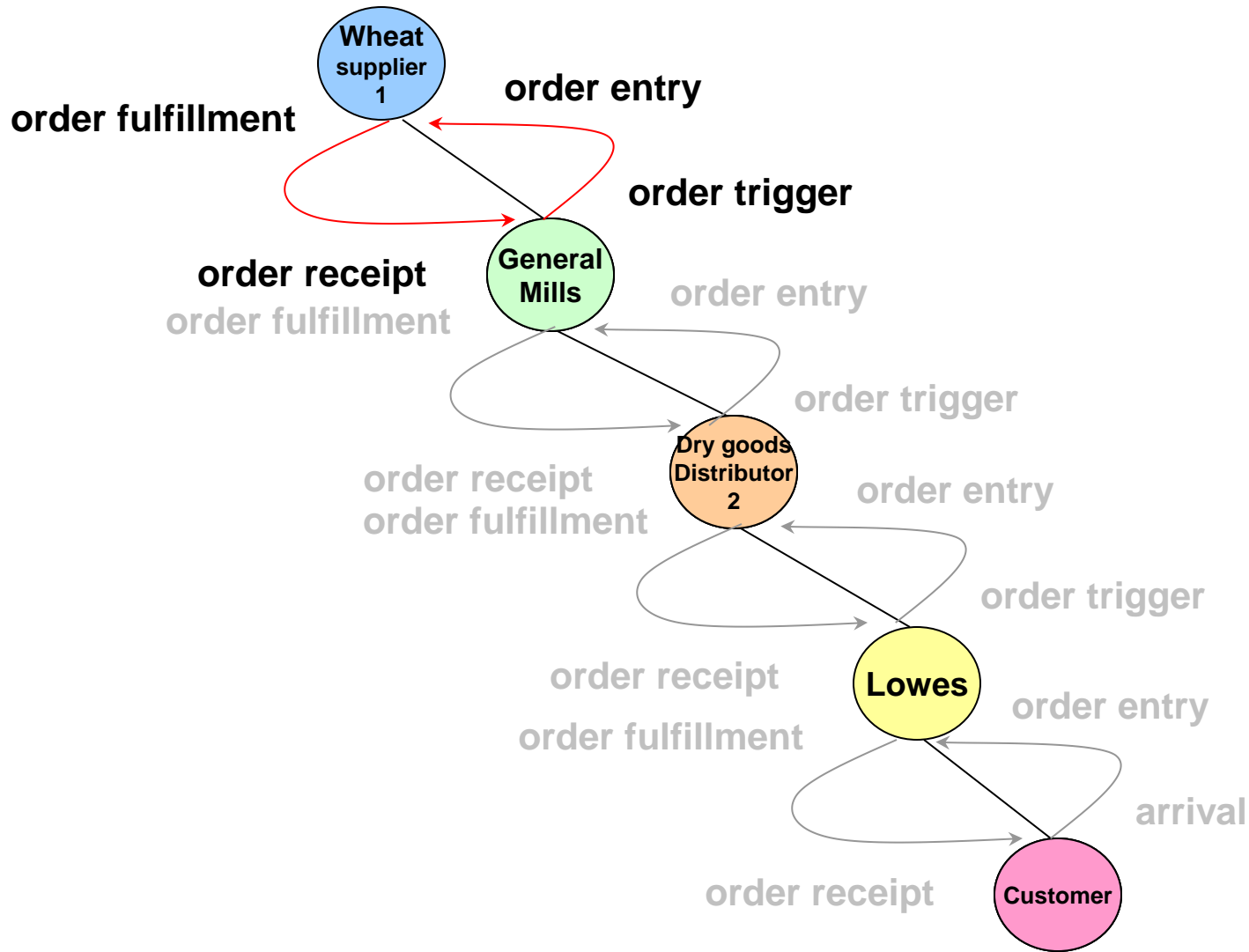
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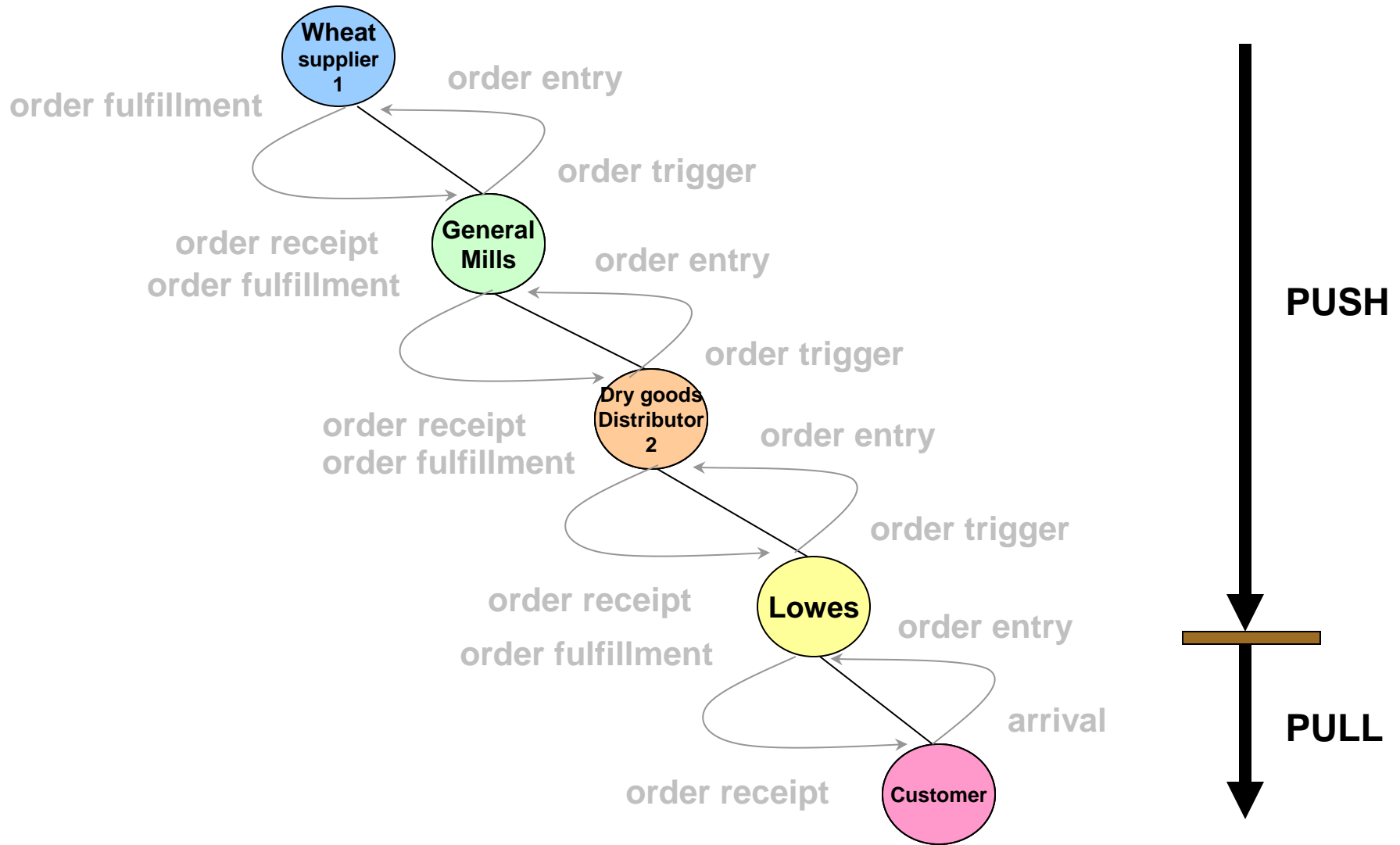


Supply Chain Processes: Push/Pull

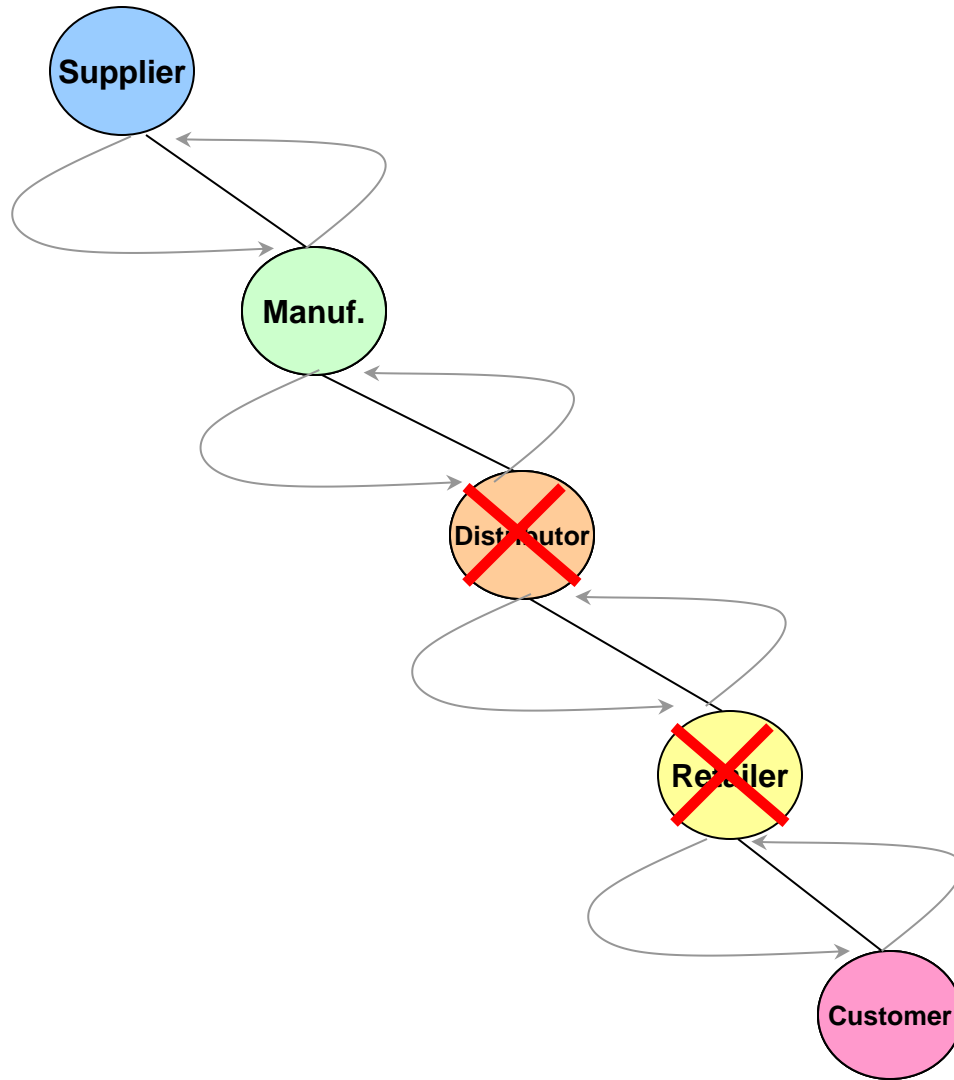
- Push:

- Pull:

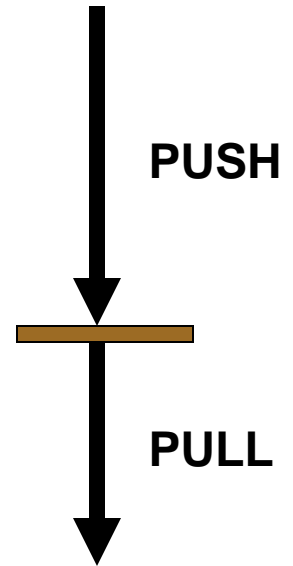
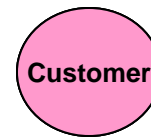
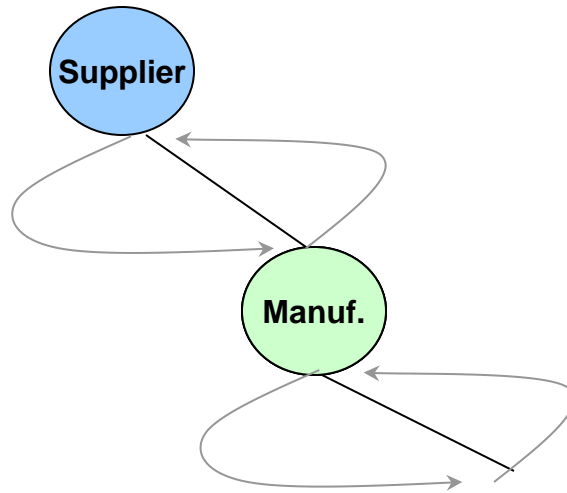
Push/Pull?



How is this different from Dell (historically)?



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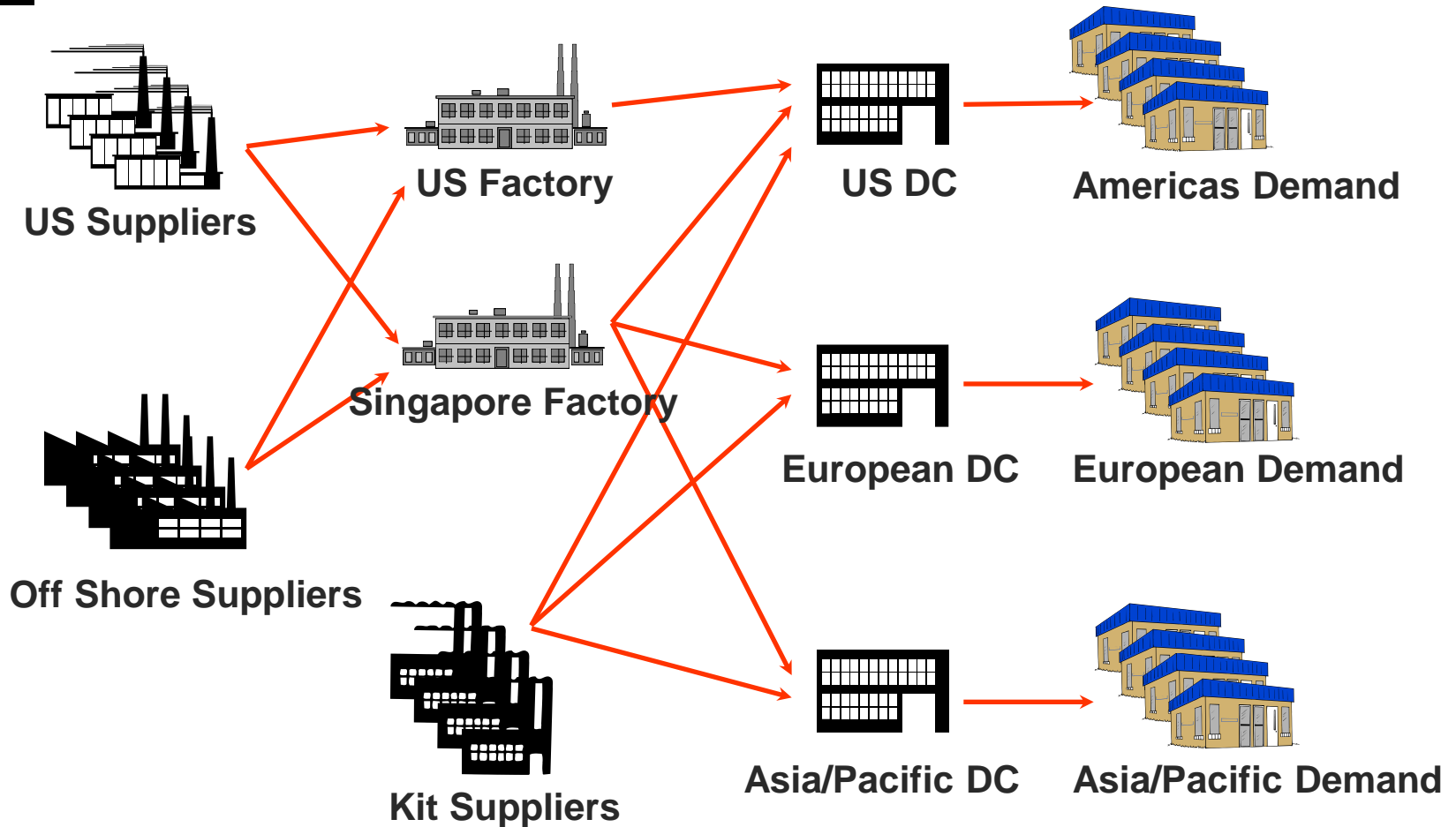
Supply Chains

- Supply chains will differ from organization to organization...

...but the general network structure remains

Let's look at some more examples...

Example: Multi-national Companies...

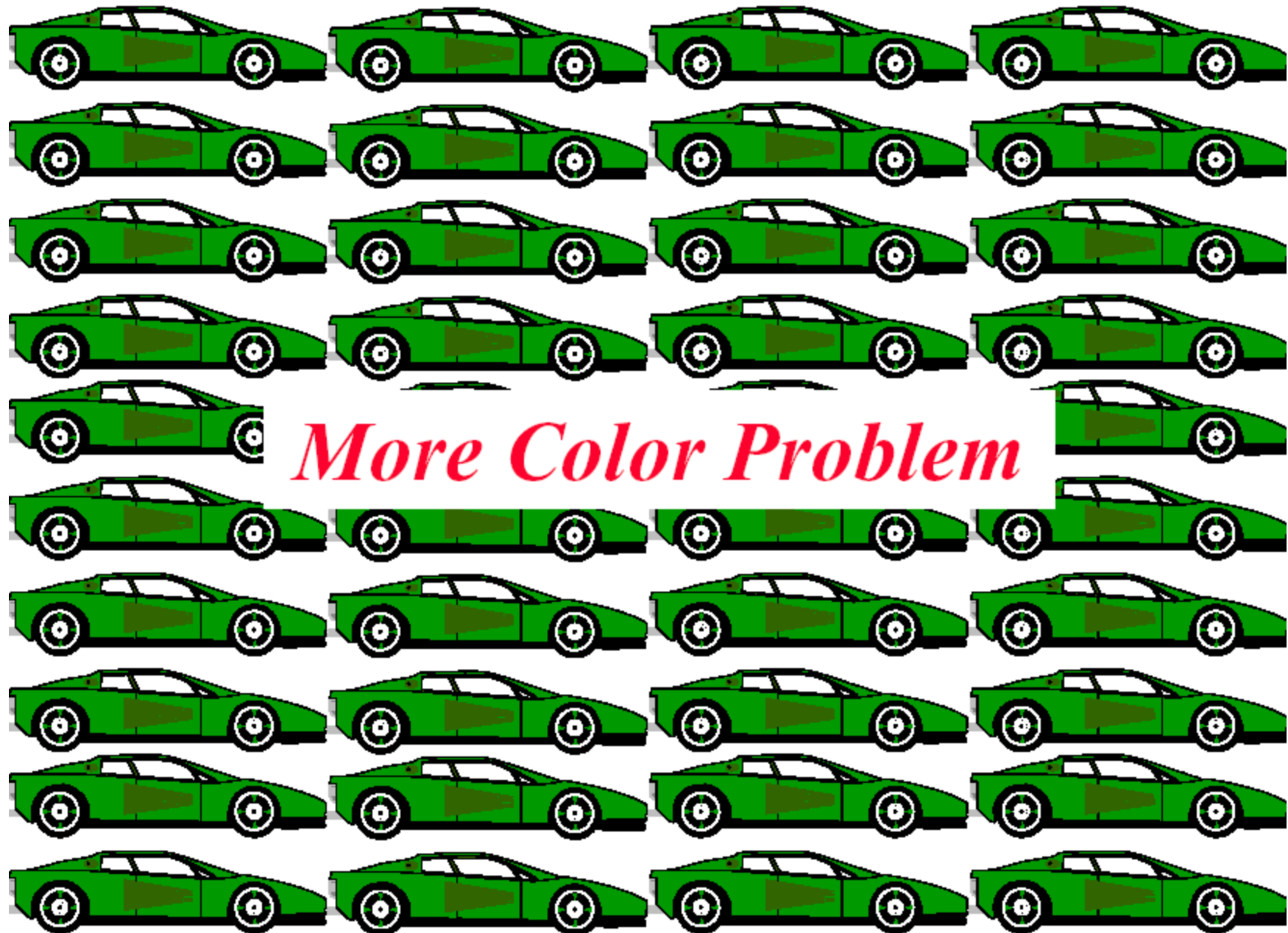




The Volvo Color Problem



The Volvo Color Problem



More Color Problem

Companies who are doing well at managing their supply chains

- Wal-mart **technology and coordination**
- Amazon **inventory**
- Toyota **flexible plants**
- Dell → **Postponement**

[What is postponement?]

- Benetton makes colorful sweaters
 - Knitting
 - Dyeing
- Which should they do first?

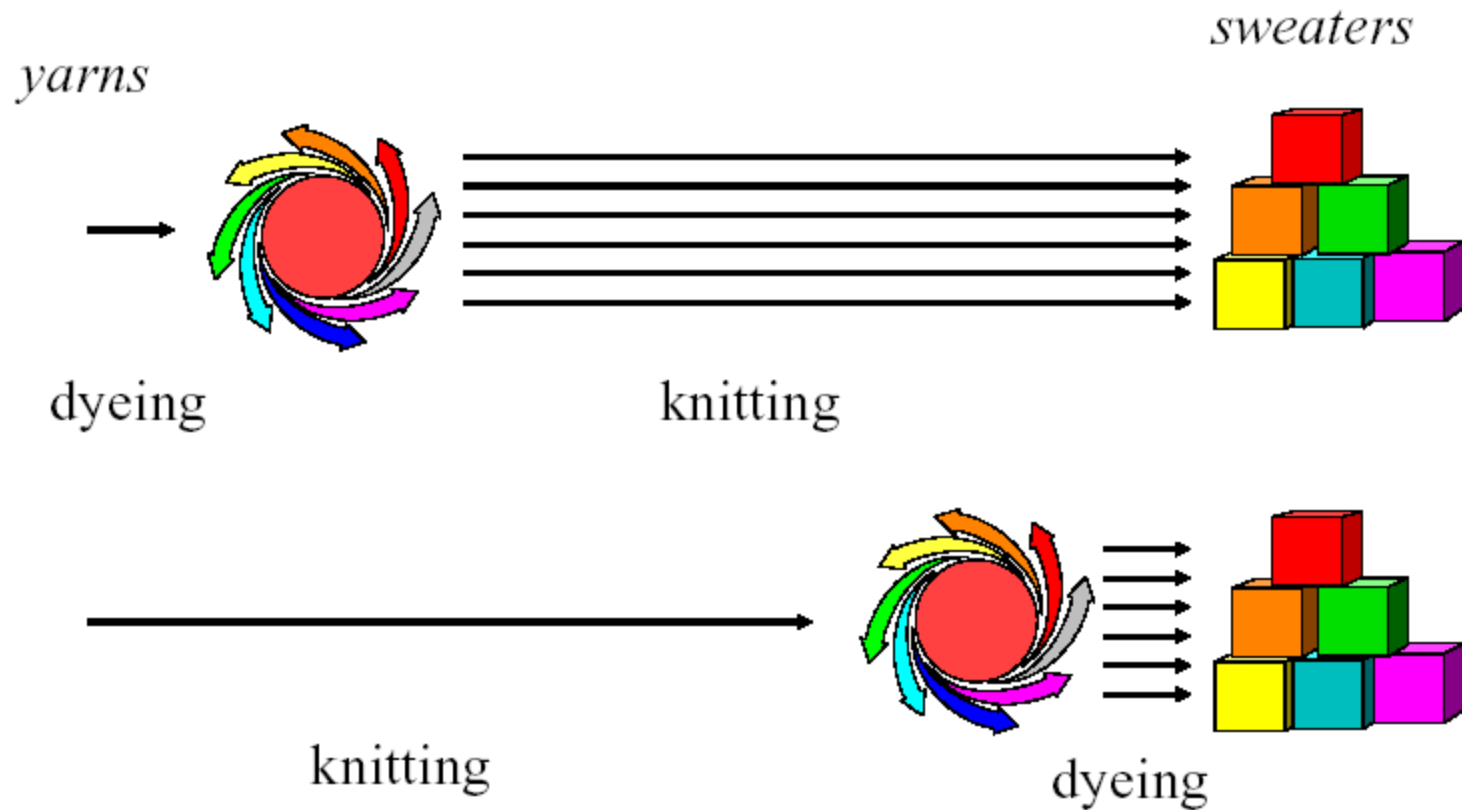
Postponement at Benetton

yarns

What does Dell do??

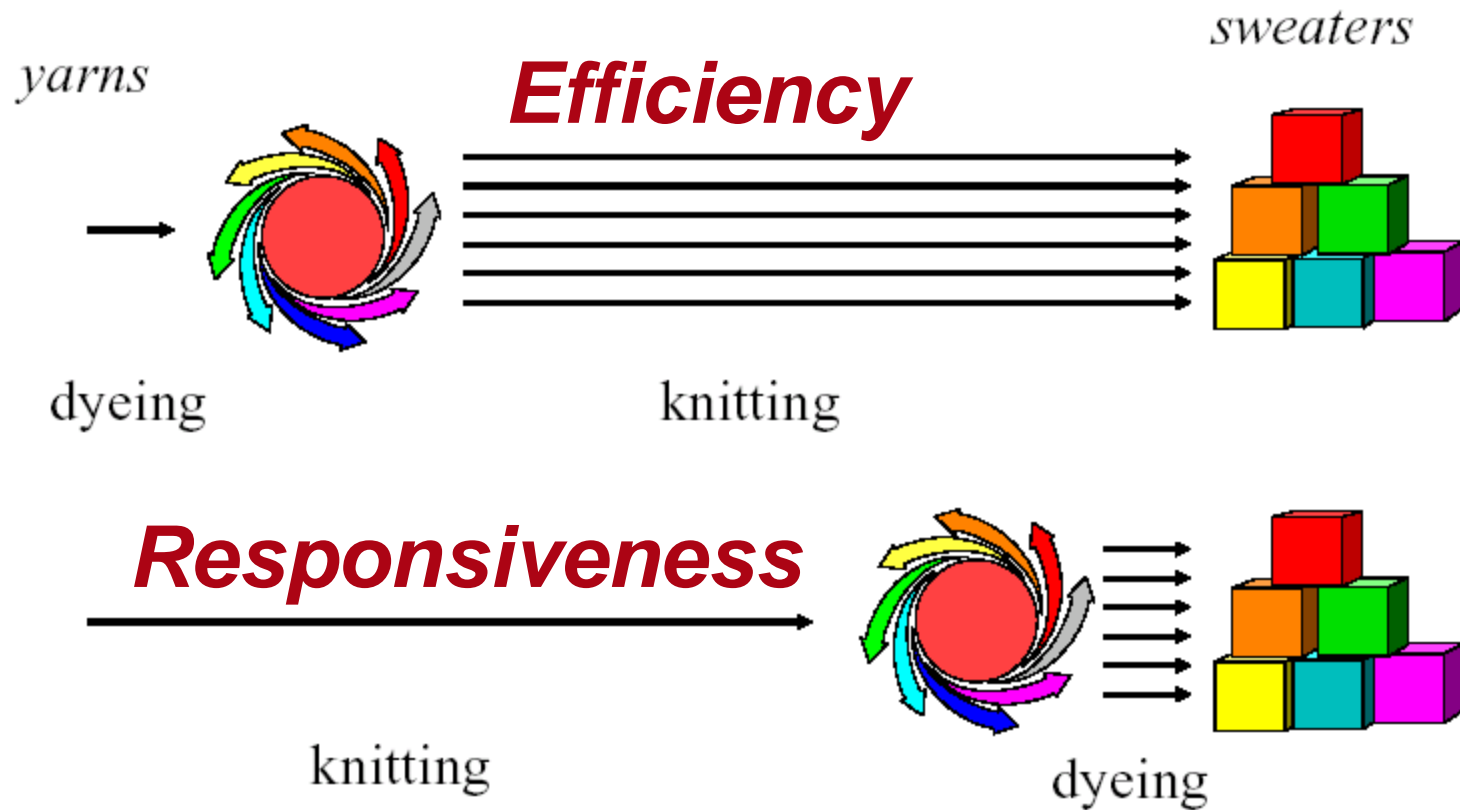
Neither way is “right” or “wrong”...

Postponement at Benetton



Which method allows a firm to be more responsive?

Postponement at Benetton



Drivers of Supply Chain Performance

Efficiency

Responsiveness

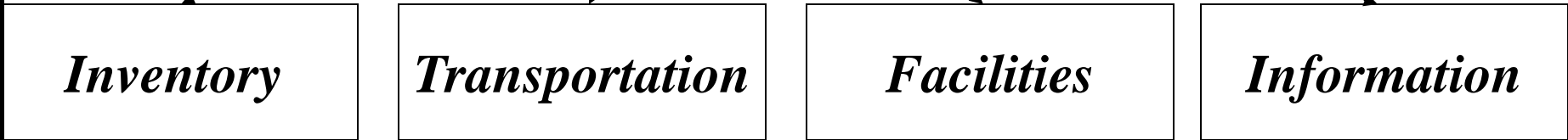


Inventory

Transportation

Facilities

Information



Drivers of Supply Chain Performance

Efficiency

Responsiveness



Inventory

not much

avoid holding costs

Transportation

cheap

try to consolidate

Facilities

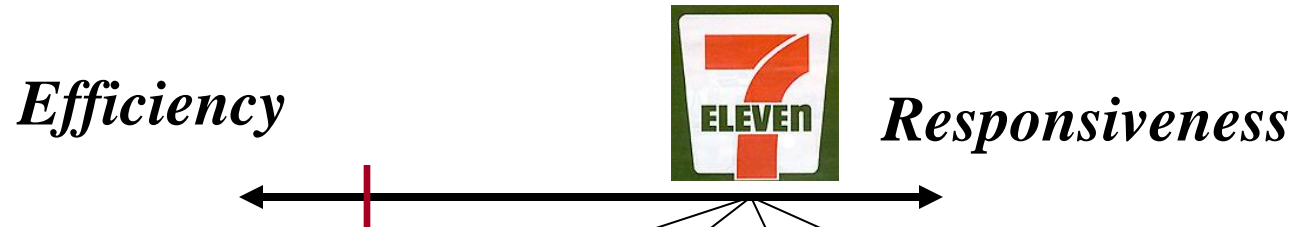
few dedicated

try to consolidate

Information

leveraged

Drivers of Supply Chain Performance



Inventory

available
to avoid stock-out

Transportation

fast

Facilities

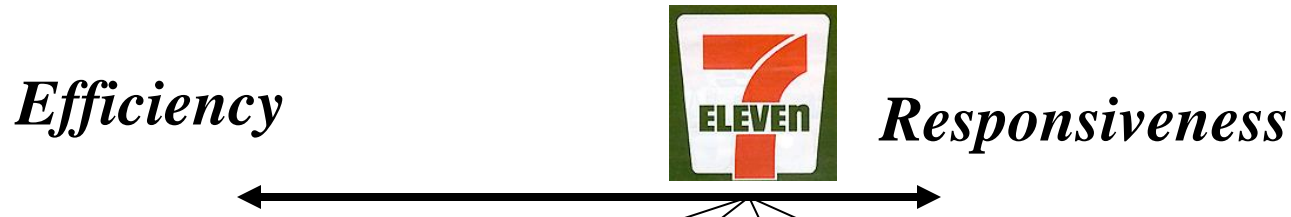
many
closer to customer

Implementation?

Information

leveraged

Drivers of Supply Chain Performance



Inventory

available
to avoid stock-out

Transportation

fast

Implementation?

Facilities

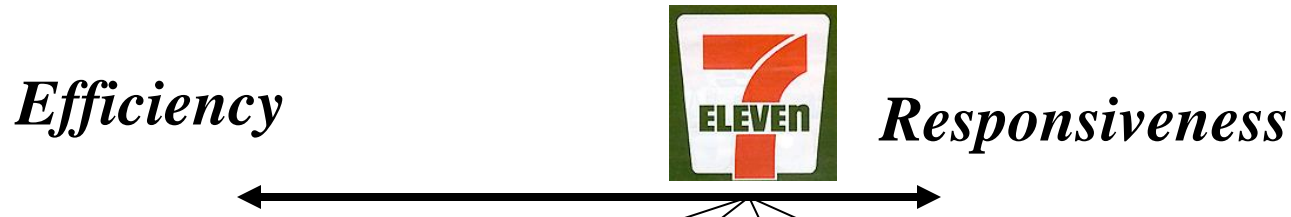
many
closer to customer

"clustering"

Information

leveraged

Drivers of Supply Chain Performance



Inventory

available
to avoid stock-out

Transportation

fast

clustering + combined
delivery system

Facilities

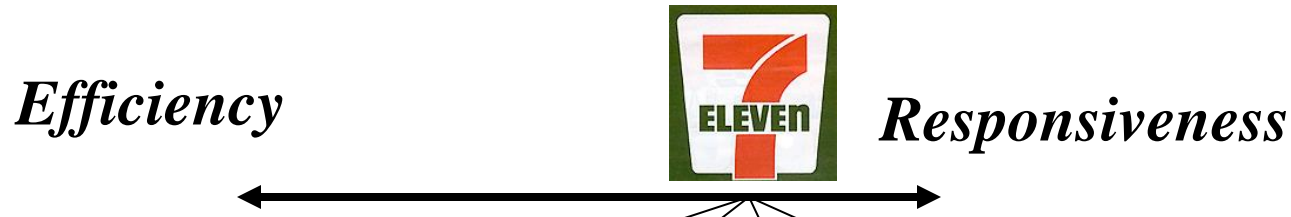
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leveraged

Drivers of Supply Chain Performance



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Implementation?

Transportation

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delivery system

Facilities

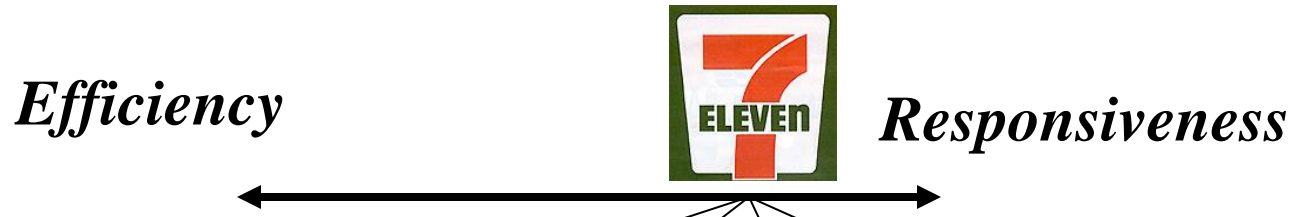
many
closer to customer

“clustering”

Information

leveraged

Drivers of Supply Chain Performance



Inventory

available
to avoid stock-out

daily deliveries

Transportation

fast

clustering + combined
delivery system

Facilities

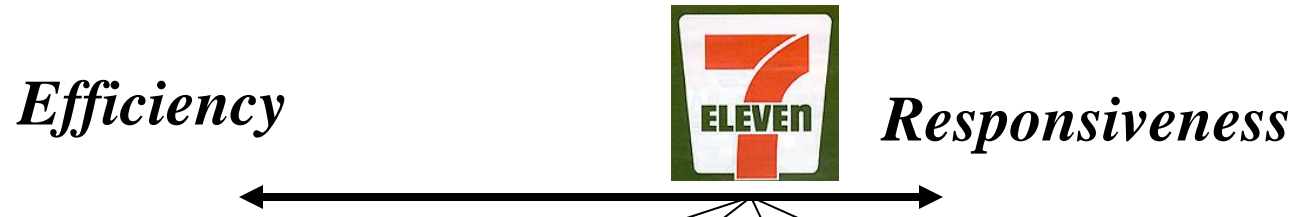
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Information

leveraged

Drivers of Supply Chain Performance



Inventory

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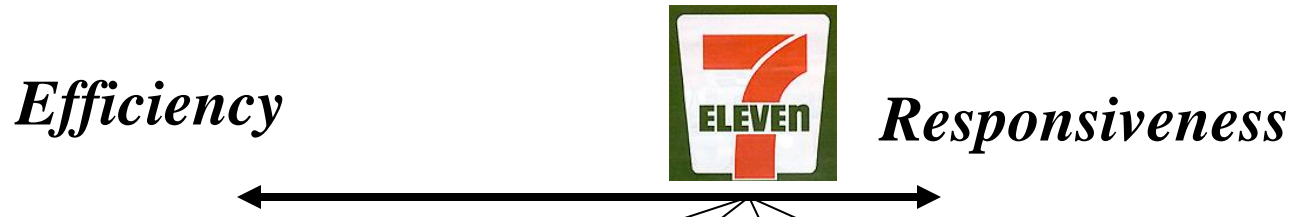
“clustering”

Information

leveraged

Implementation?

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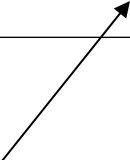
Information

leveraged

info. systems

Summary (Performance Drivers)

<i>Driver</i>	<i>Efficiency</i>	<i>Responsiveness</i>
Inventory	Cost of holding	Availability
Transportation	Consolidation	Speed
Facilities	Consolidation / Dedicated	Proximity / Flexibility
Information	Leveraged	



What information is best suited to each objective?

Supply Chain for Multiple Products

- Many companies produce products with different implied demand uncertainty
- Two options:
 1. Separate supply chains for each product type
 2. Single supply chain that balances efficiency and responsiveness for the portfolio of products

Summary

- Definition
- Stages
- Drivers