

ISD 363

SUPPLY CHAIN MANAGEMENT

DORCAS NUERTEY (PhD)

dnuertey.ksb@knust.edu.gh

MODULE 5

SUPPLY CHAIN COORDINATION

LEARNING OUTCOMES

At the end of this lecture, you should be able to:

- Describe what supply chain coordination and the bullwhip are and their impact on the performance of the supply chain.
- Identify the factors that impede coordination among supply chain partners
- Discuss managerial levers to improve coordination in the supply chain

SUPPLY CHAIN COORDINATION DEFINED

“*Supply Chain Coordination* improves if all stages of the chain take actions that are aligned and increase total supply chain surplus”.

(Chopra & Meindl, 2013).

LACK OF SUPPLY CHAIN COORDINATION AND THE BULLWHIP EFFECT

Lack of supply chain coordination can occur when:

- At different stages of the supply chain each has its own objectives that conflict with the other.
- Information is distorted or delayed as it moves through the various stages.

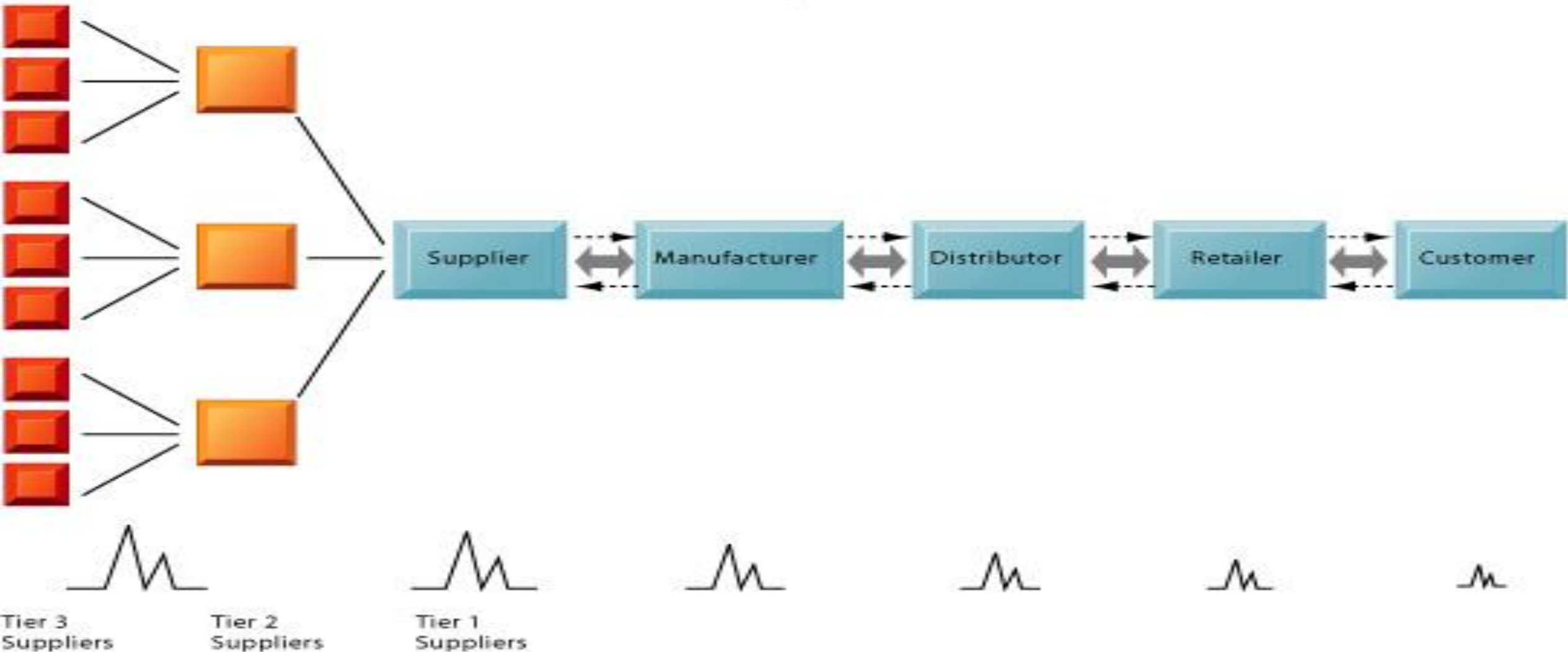
LACK OF SUPPLY CHAIN COORDINATION AND THE BULLWHIP EFFECT CONT'D

A lack of supply chain coordination can result in the **bullwhip effect**.

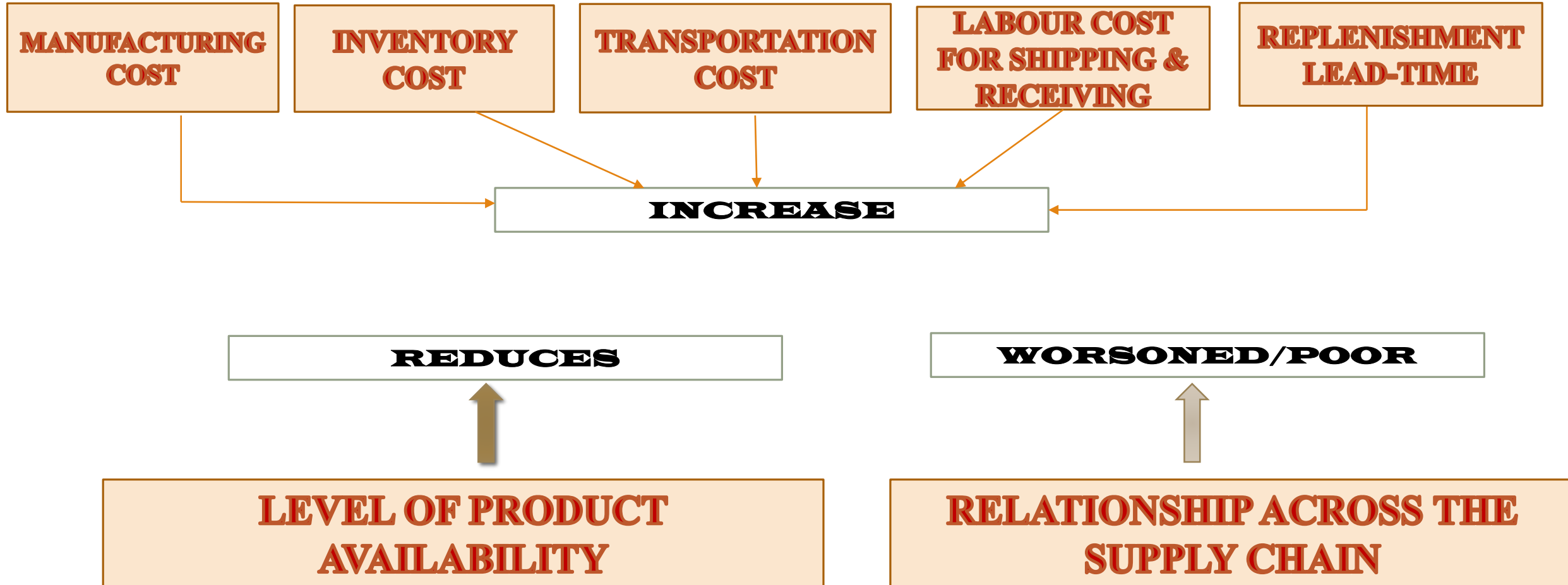
The bullwhip Effect is the situation where the fluctuations in orders begin to increase as they move up the supply chain, from retailers to suppliers.

THE BULLWHIP EFFECT

Bullwhip Effect



THE EFFECTS ON PERFORMANCE OF A LACK OF COORDINATION



OBSTACLES TO COORDINATION IN A SUPPLY CHAIN

INCENTIVE

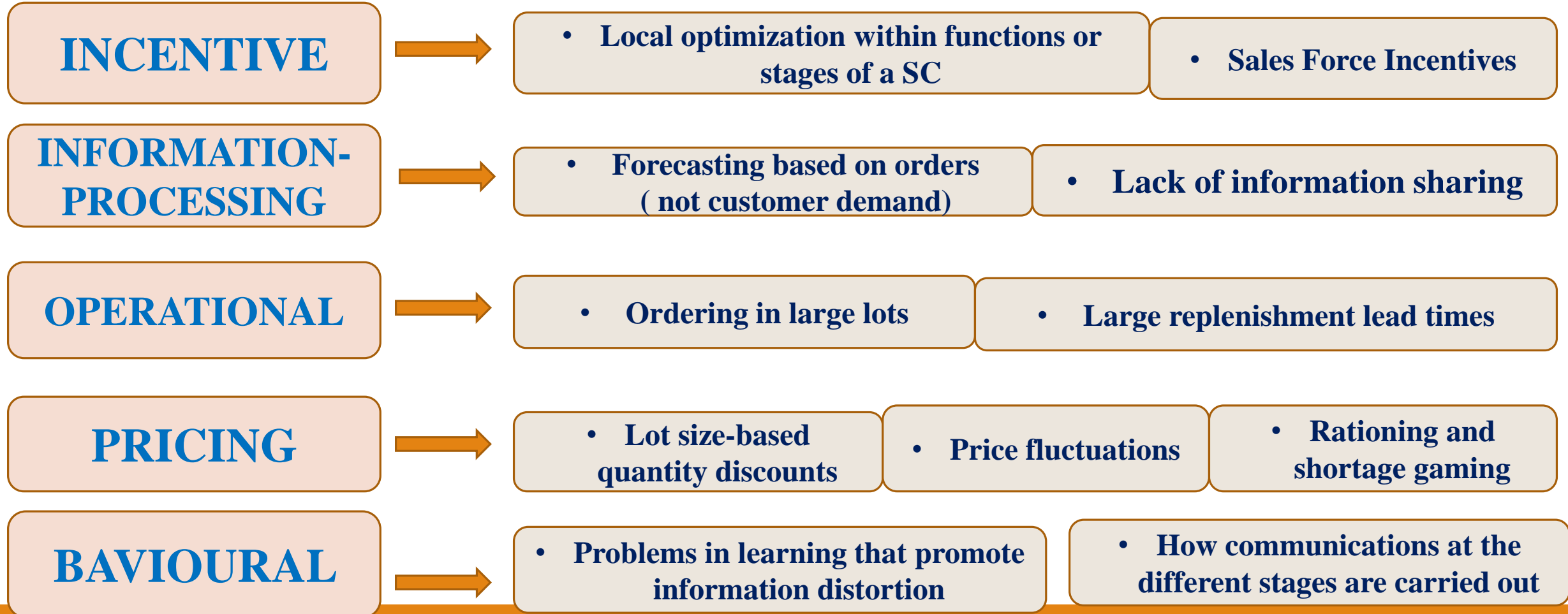
OPERATIONAL

**INFORMATION-
PROCESSING**

PRICING

BAVIOURAL

OBSTACLES TO COORDINATION IN A SUPPLY CHAIN



MANAGERIAL LEVERS TO ACHIEVE COORDINATION

**ALIGNING GOALS &
INCENTIVES**

**DESIGNING PRICING
STRATEGIES TO
STABILISE ORDERS**

**IMPROVING
OPERATIONAL
PERFORMANCE**

**IMPROVING
INFORMATION
VISIBILITY & ACCURACY**

**BUILDING STRATEGIC
PARTNERSHIPS & TRUST**

Aligning of Goals and Incentives

- Aligning goals across the supply chain
- Aligning incentives across functions
- Pricing for coordination
- Altering sales force incentives from sell-in to sell-through

Improving Information Visibility and Accuracy

- Sharing point-of-sale data
- Implementing collaborative forecasting and planning
- Designing single-stage control of replenishment

Improving Operational Performance

- Reducing replenishment lead time
- Reducing lot sizes
- Rationing based on past sales and sharing information to limit gaming.

Designing Pricing Strategies to Stabilize Orders

- Moving from lot size-based to volume-based quantity discounts
- Stabilizing Pricing

Building Strategic Partnerships and Trust

Based on the other levers discussed, managers can easily use them to achieve coordination if trust and strategic partnerships are the foundations in the supply chain.



END OF CLASS

