

#045 : Managing Shortages in Distribution Supply Chains

Whether to be proactive or reactive?

The definition of shortage is quite straight forward. When the **available inventory is not sufficient to fulfill the incoming demand** then it is called shortage.

It is closely related to “service level” and “availability”. While the former is related to how much demand is not fulfilled, the latter concerns the number of items available from the portfolio.

Organizations often also encounter cases where the unfulfilled demand is “postponed”. In such cases “on time in full” is used to measure the performance.

Impacts

1

Loss of revenue
-> Lower profitability

2

Lower service level
-> Customer dissatisfaction

Shortages at certain locations can occur, even if sufficient inventory is available in the supply chain. This may happen due to imbalance in inventory levels across locations.

Mitigation

Two types of strategies can be followed.

Proactive

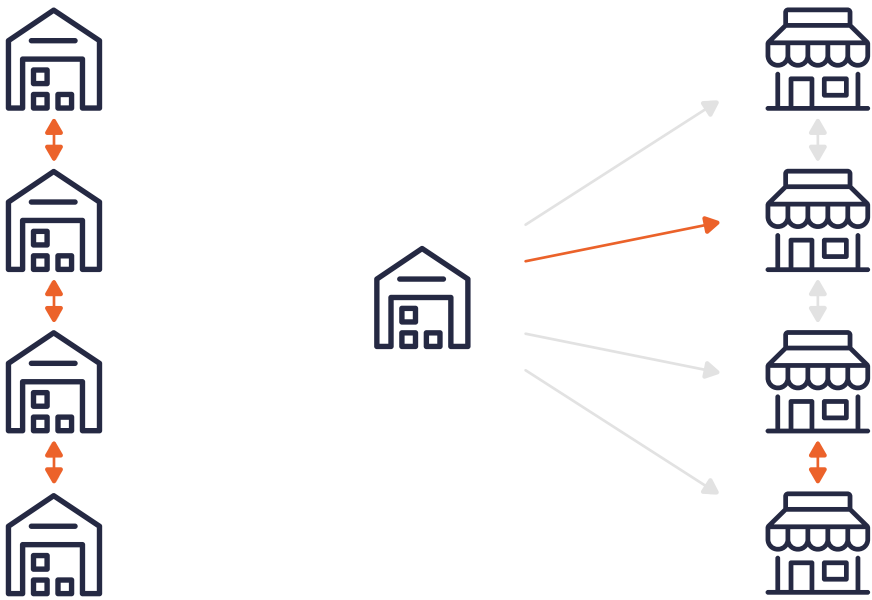
It involves predicting the shortages, then planning shipments at least cost to avoid them as much as possible.

Example: **Proactive transshipment, proactive shipments.**

Reactive

It involves replenishment actions after shortages are detected.

Example: **Inventory rationing**, which can be defined as optimal allocation of available inventory across different demand points or demand streams.



Orange color indicates proactive transfers.

