EHS402: OPERATIONS AND SUPPLY CHAIN

MANAGEMENT (Elective)

VIII Semester B.Tech CSE B5

Lecture Notes

in

O&SCM

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Prepared and Compiled

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(with Sincere acknowledgements to authors of the prescribed textbooks as per syllabus and online content)

OSCM Module IV

Topic I

1.1 Collaborative Planning, Forecasting and Replenishment (CPFR):

Collaborative Planning, Forecasting and Replenishment (CPFR) is a business practice that combines the intelligence of multiple trading partners in the planning and fulfillment of customer demand (figure 1).

- Links sales and marketing best practices to supply chain planning and execution processes

- Objective is to increase availability to the customer while reducing inventory, transportation and logistics costs

1.2 CPFR is one of a series of supply chain initiatives:

- JIT (Just-In-Time),
- ECR (Efficient Customer Response)
- VMI (Vendor Managed Inventory)

1.3 CPFR Makes Organizations:

- more responsive
- reduce the impact of Bullwhip effect"
- reduced inventory levels
- achieve fine tuning between supply chain drivers and end customers needs
- visualize the bigger picture in terms of the entire supply chain rather than their enterprise alone
- develop trust between trading partners

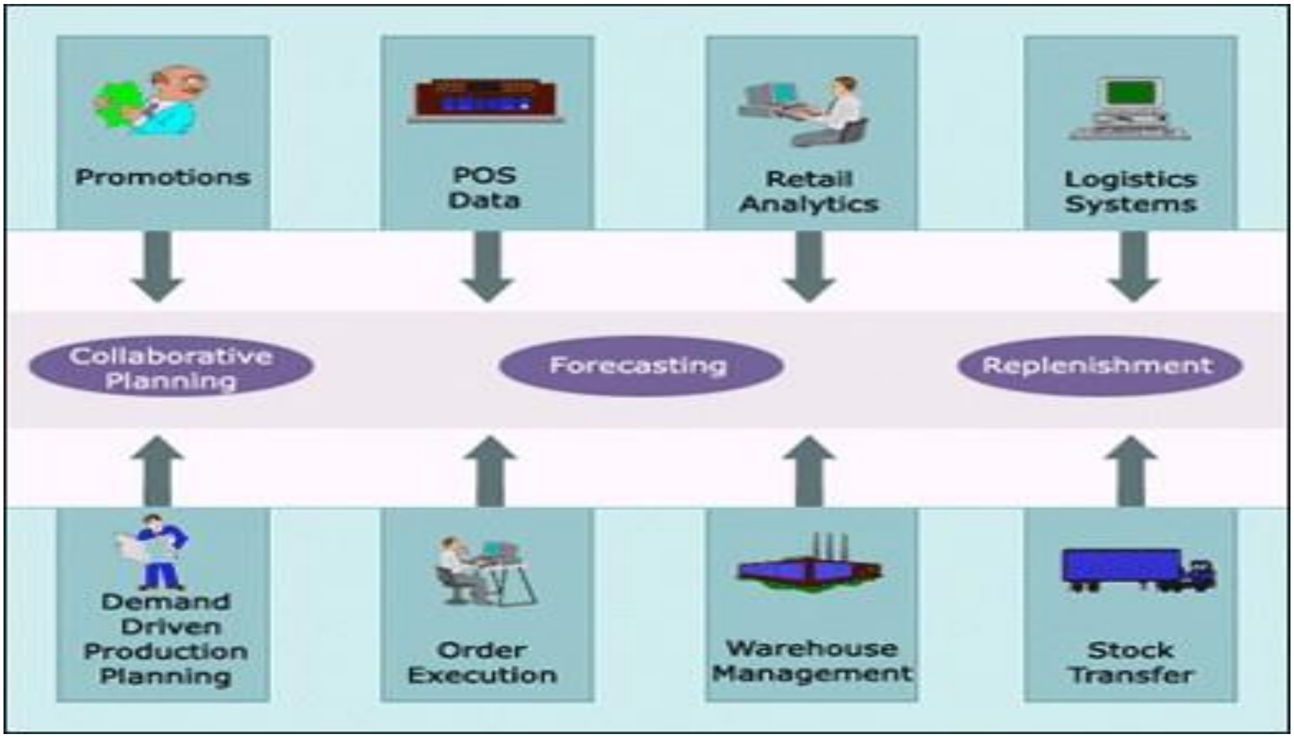

Figure1. Representation of CPFR model

1.4 Origins of ECR

- CPFR has its origins in Efficient Consumer Response (ECR).
- ECR was a conscious attempt to better coordinate marketing, production, and replenishment activities in a way that simultaneously increased value to the consumer while improving supply chain performance for producers and retailers.
- Typical manufacturer-retailer relationship prior to ECR
- Situation
- Arms-lengths relationships; little or no joint planning
- Relationships were often adversarial.
- The lack of information sharing made these relationships more costly than they needed to be ("unpredictable" ordering patterns, excessive inventories, service failures etc.,)

1.5 Example of implementation of CPFR :

P & G and Wal-Mart's Strategy in 1990

The steps involved were:

- Information sharing
- Joint demand forecasting
- Coordinated shipments

  This resulted in ECR

1.6 Core elements of ECR

Efficient assortment – Product offerings should be rationalized to better meet customer needs and improve supply chain performance (ex. – Why 100 different SKUs that confuse consumers when 30 SKUs would meet their needs?)

Efficient product introductions – New products should be introduced in response to real customer needs, and only after the impact on supply chain performance has been considered.

Efficient promotions – Prices should be kept as stable as possible. The supply chain impact of promotions and market specials should be carefully considered.

*Efficient replenishment *– All physical and information flows that link producers to the consumer should be streamlined to cut costs and increase value.

1.7 Differences between ECR and CPFR

ECR's core elements still apply under CPFR

CPFR extends the business processes to include: Information systems for capturing and transferring POS, inventory, and other demand & supply information between trading partners

- Formalized sales forecasting and order forecasting processes
- Formalized exception handling processes
- Feedback systems to monitor and improve supply chain performance

1.8 ECR and CPFR at a glance