

## Virtual Supply Chains

**Every Supply Chain has more than one virtual supply chain in it.**

Virtual supply chain indicated here is neither a web enabled supply chain nor a concept that practitioners cannot relate to. It has nothing to do with IT and it is not a theoretical framework. It is experienced daily by managers involved in managing supply chain, developing supply chain strategy and those who are planning to compete in the market place through an efficient and effective supply chain.

Consider a simple supply chain, where

- It has physical set of facilities - suppliers, plants, warehouses, distributors, dealers etc.
- This physical supply chain caters to customers through a mix of products and services.
- All customers are neither same nor are their requirements common.
- Each customer segment has different expectations from the supply chain.
- This calls for a different set of stocking, ordering policies and different planning and execution processes catering to the needs of each customer segment.
- These are the virtual supply chains existing within the boundaries of one physical supply chain.

However, at times, these virtual supply chains are not visible to operational managers. Hence, they keep on changing supply chain systems and processes. As a result in spite of best efforts, optimization tools and highly skilled people, the best out of supply chain is not extracted.



Each of the customer segment has a set of requirements to be fulfilled by the Supply Chain. At times, these requirements are diverse or conflicting in nature. To satisfy these requirements, virtual supply chains need to be designed and managed. These supply chains need to have their own set of stocking, ordering, planning and execution policies and are governed by their own performance metrics.

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### More Resources

- [Supply Chain Health Assessment](#)
- [Supply Chain Simulation](#)
- [Variability and Supply Chain](#)

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### About DecisionCraft Analytics

We provide decision-making

**To extract the maximum value from your supply chain, it is imperative to examine closely the existing processes and recognize the virtual supply chains operating within.**

**Take a case of a cement company** with a single product.

The company has its own integrated manufacturing plant, which produces cement at a steady rate. It has a fleet of vehicles for moving cement from plant to the respective sales points. The company caters to diverse customer segments that include Ready Mix Concrete manufacturers, Asbestos sheet manufacturers, Homebuilders, Commercial contractors (office and commercial complex builders), Project contractors (contractors engaged in large projects like bridges), Small contractors (catering to home builder segment) etc.

An RMC company is interested in uninterrupted supply of cement at a lower cost and so is willing to accept the product in large quantities and pack sizes. On the other hand, a commercial contractor requires prompt delivery of cement to the site so that the labor force does not sit idle. A homebuilder requires small quantities packaged in easy to seal, move and store bags which remain free from moisture for a longer duration. Thus the supply chain manager needs to design a different set of policies for inventory, storage, logistics, order execution and have a different metrics to measure performance for each of these customer segments.

Thus for managing these Virtual Supply Chains existing within the physical supply chain, same set of rules, policies, systems and tools cannot be applied.

**Situation is not different in other industries.**

**In pharmaceutical industry**, the products behave in a different manner - they may be seasonal or scheme driven; having very stable or highly volatile demand patterns. Most of the time all these products are produced with the similar planning parameters, facilities and dispatch modalities.

**A well designed supply chain caters to the needs of different customer segments and at the same time manages common facilities, management, suppliers and distribution channels.**

There are two important steps in identifying the virtual supply chains existing in your supply chain:

solutions to improve operational efficiency and business responsiveness. Our consulting services employ our strengths in industry knowledge, conceptual rigor, and information technologies. Developed using concepts from decision theory; our solutions use robust optimization, simulation, and statistical engines adapted to our client's focus areas.

SCM is one of the focus areas of DecisionCraft. Besides developing and offering its proprietary SC products, DecisionCraft offers consulting services in SCM and has customer engagements in Pharmaceutical, Cement, Textile, Banking, Advertising, and Energy industries.

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### **DecisionCraft Supply Chain Offerings**

#### **scAssessment**

Assesses and evaluates current health of supply chain

#### **Logistics Planner**

Synchronizes supply with demand to minimize distribution costs

#### **Supply Chain Simulator**

Determines optimum inventory policy such as re-order point and maximum stock based on fill rates

- **Understanding the End Customer requirements** either from Marketing or from a Supply Chain driven market research. This will capture the needs of different customer segments from supply chain .
- **Supply Chain Assessment**, where the existing processes, performance levels are reviewed and supply chain processes are redesigned for catering to the identified needs.

This helps to build a customer centric Supply Chain and to acquire the much desired competitive edge.

Next Issue: [Analytics for Retail Banking](#)

Previous Issue: [Contact Center Analytics](#)

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