



How we Ship Goods in the Future: Triple Con Supply Chain

Management Outlook

Entrepreneurs, from Amazon to Zappos, disturb existing markets with innovative business models that build upon modern technologies. In this report we share our vision on tomorrow's supply chain. A supply chain where customer demand can always be met, while inventory risks remain low and logistics efficiency is kept up. Clearly, the new way of shipping goods fully capitalizes on the capabilities of modern technologies. We call it the Triple Con Supply Chain.

Three principles

Let's see how Internet and mobile technology have changed the way we do business. We see three common principles:

1. **Connected:** Everyone has access anytime and anywhere. Users can log on easily via the internet or mobile apps. Employees are connected everywhere, not only in fixed workplaces, but also on the way. [Uber](#) drivers get to see where they can pick up their next passengers via their smartphone
2. **Controlled:** There are no more people behind the screens to orchestrate processes. Intelligent systems do this automatically. This not only saves time but also provides more efficient processes. [Unilever](#) saves 20 percent on its transport miles with [continental control towers](#) where smart software ties trips together.
3. **Consolidated:** Companies not only utilize their own resources, but also draw from resources of others. [Macy's](#) is expanding its in-store assortments in a digital way with inventories of other branches, distribution centers and suppliers, thus preventing lost sales.

Smart matching

These three principles are reflected in many initiatives. They offer easy access via Internet and mobile apps (connected), provide smart matching of supply and demand (controlled) and make fully or partly use of resources of others (consolidated). Check out the following examples.

Company	Product
Airbnb	Guest houses
Alibaba	Direct purchase
Amazon	Shopping
eBay	Used stuff
Tinder	Dating
Peerby	Stuff sharing
RelayRides	Car sharing
Shutl	Fast local deliveries
Uber	Taxi rides

Big data

Easy access via the internet and apps is well regulated in all examples. Smart matching is done

in various ways, from personal filters ([Tinder](#): What do I seek in a future partner?) and geographical positions ([Shutl](#): which driver is currently in the neighborhood?) to ratings ([Airbnb](#): how do others appreciate a place to stay?) and big data ([Amazon](#): customers who bought this product, also bought...). Ultimately, they combine own products or services with those of others.

Capital risk

The newcomers offer convenience, a wide product range and have less capital risks than traditional businesses. Without exception, they provide excellent services in which the needs of customers are central. Traditional companies may find it hard to compete here. The many lawsuits against taxi service [Uber](#) speak volumes in this respect. In comparison, traditional companies run a relatively cumbersome and costly business with a lot of waste: unnecessary handling, outdated information, delays, unexpected fluctuations in supply and demand, lost sales, superfluous inventories and environmental pressures.

Uncertainty

The pain in traditional supply chains arises mainly from uncertainty. Companies make or buy what they expect that they can sell. Despite forecasts and predictions, actual demand will be different and shortages and surpluses are the result. On the one hand, companies lose both revenue and margin when they have to disappoint customers and on the other hand they suffer from severe depreciations on merchandise that they cannot sell.

Triple Con Supply Chain

So the time has come for a supply chain in which we have up-to-date information anytime and anywhere. In this way, uncertainty reduces and we become less dependent on forecasts. Modern technology makes the supply chain *connected*, *controlled* and *consolidated*. Therefore, we refer to this new supply chain as the *Triple Con Supply Chain*. Products that are not locally available, can easily be sourced from elsewhere. The traditional *buy-hold-sell* model shifts towards *sell-source-ship*.

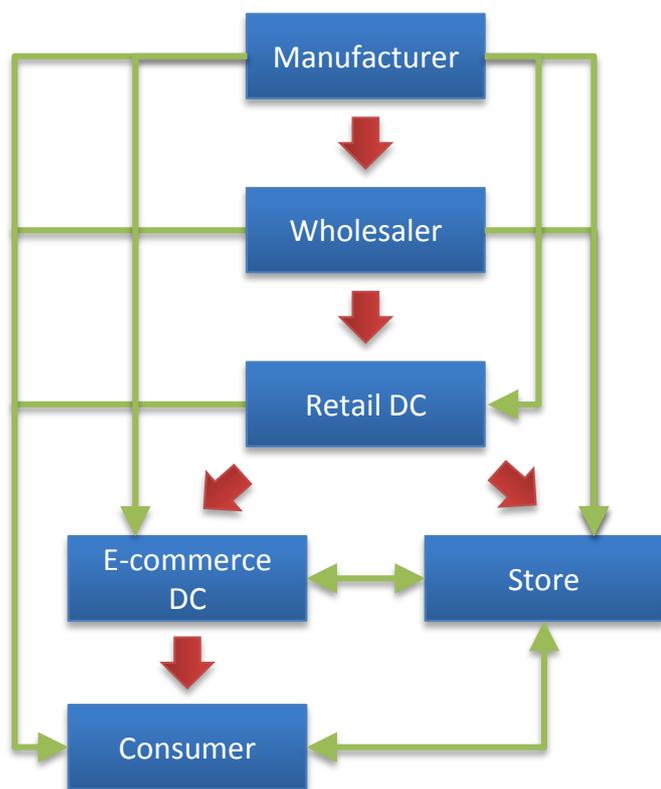
Touch screens

A popular example is [Macy's](#). The retail chain has touchscreens in stores where customers can order products that are currently not present. Orders will be delivered from the central warehouse or from another branch with sufficient stock. Perhaps,

otherwise, the product would have stayed in that other branch until the end-of-season sale. In this way, [Macy's](#) kills several birds with one stone: Satisfied customers, additional sales, better margin and less obsolete stock.

Unpredictable demand

Let's draft the Triple Con Supply Chain. The diagram below outlines the supply chain from manufacturer to consumer. We recognize the red arrows as the traditional flow of goods. These provide economies of scale and work excellent for fast moving products and products with predictable demand. For these products there is a low risk on inventory, so the Triple Con Supply Chain opts for efficiency. The green arrows depict the various flows of slow moving products with unpredictable demand. These typical *long tail* products may lie at various places in the supply chain and when demand comes, we efficiently direct them to their destination.



Virtual Warehousing

So the green flows primarily consist of occasional small shipments that must be bundled in order to create efficiency. In 2001, we published the report [Virtual Warehousing](#) which sketched a consolidated network for fast and efficient distribution of small shipments. Unfortunately, little was done with it in practice at that time. Probably because technology was not yet ready.

Consolidated distribution

Meanwhile, time seems ripe. In the consolidated distribution network we preferably put goods close to the source, for example at the manufacturer or in a distribution center near ports where goods enter the continent. Then we combine separate shipments from different inventories into full truckloads through a network of warehouses and cross-dock centers. Finally, we keep limited forward stocks at points near markets to meet local demand during the replenishment of stocks. Thus, total inventory remains limited, nonetheless we are able to quickly and efficiently meet demand anyway. This applies to continental networks, but also on a smaller scale. Think of a regional wholesaler with various suppliers and customers, or a retailer with multiple stores. The only condition is that a plurality of storage points become connected with each other.

Conclusion

We have seen that new businesses, from [Amazon](#) to [Zappos](#), conquer huge market shares by linking surprising business models to modern technology. Such businesses require a new supply chain: The Triple Con Supply Chain. It serves customers better than traditional supply chains. Products are practically always available, product ranges are wider, shipments are delivered quickly and efficiently and yet inventory risks remain low. Clearly, traditional companies can also benefit from these new opportunities. For instance, Macy's expands its offerings with virtual stocks in stores to prevent lost sales and Unilever builds smart distribution networks using these new technologies.

Storelink is a vendor of innovative logistics software. For further information, feel free to contact us.

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