



Omnichannel

It changes the entire supply chain

Management Outlook

The Internet takes more and more market share away from the shopping streets and this trend will not reverse. [Shopping2020](#) predicts that one-third to one-half of consumer purchases will go through the web by the end of this decade. In order to capitalize on this development, many retail chains opened webshops in recent years. The next step is omnichannel, where virtual and physical customer contact seamlessly melt into each other. This not only changes the sales process, it changes the entire supply chain from manufacturer to customer.



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Separate Channels

In most retail chains, e-commerce and stores are separate sales channels with their own inventories and delivery options. For instance, HEMA.nl, number 8 of the Dutch Twinkle Top 100, states at the web shop that orders can be picked up in the store after approximately 5 working days (click-and-collect). At the same time, the site shows that the product is present in the local HEMA. Another product is temporarily out of stock at the web shop, while it is available in the store. Conversely, an item may be out of stock in the store and the clerk suggests to purchase it via the web shop. Consumers find that strange: No sale while the product is in stock. Yet this is reality, as the [video](#) below illustrates.

Seamless

To enter the competition with the pure players on the Internet, it is important that retailers seamlessly connect online and offline channels. Let us take a closer look at the two channels. First, the success factors of distant selling:

- Choice
- Convenience
- Price

Choice

On the Internet everything can be bought. If we do not find an item in a web shop or it is temporarily out-of-stock, then the next competitor is only a few mouse clicks away. Search engines and comparison sites such as kieskeurig.nl or beslist.nl enable us to quickly find and compare products. The challenge

for web shops is to provide a comprehensive and recognizable assortment, so that every visitor finds what he wants. Wide choice is a success factor.

Convenience

Buying online is convenient using your PC, tablet or smartphone. Web shops provide product information and reviews for comparing products on price and quality. Moreover, it is easy to get the product in your possession. It is delivered quickly where and when you want and if you do not like it, then simply send it back. Convenience also is a success factor.

Price

Then we have a look at price. On the one hand, we can easily compare prices on the Internet. Especially on standard products we see a lot of price competition. On the other hand, web shops need to make costs to ship web purchases to consumers. Typically, web shops charge shipping fees, which pushes up prices, or they offer free shipping. Logistics costs must be paid from the gross margin. For that reason, retailers with slim margins, for instance [Action](#), decide not to sell on the Internet.

Traditional Stores

If choice, convenience and price are success factors of web shops, then what about traditional stores? The available choice obviously is smaller than on the Internet since the assortment is limited by the available square footage. As for convenience and price, consumers make a trade-off whether it is

Predictions

Based on our research, we make the following predictions for omnichannel logistics in the next two years:

- We expect a breakthrough in omnichannel logistics in 2014. Retailers launch many initiatives to unlock inventories and be able to service consumers through multiple channels. Successful pilots are scaled up quickly, since the required logistics capabilities match with existing networks.
- Consumers will soon get used to virtual items in stores and will less easily accept out-of-stocks.
- Physical inventories in stores gradually diminish, starting with the long tail. The supply principle of manufacturers further shifts from push to pull.
- Brand manufacturers gradually start to offer their products via digital displays in stores, concept stores and shop-in-shops.
- Wholesalers and, to a lesser extent, manufacturers will invest strongly in detail-picking methods for consumer deliveries.
- Logistics service providers will specialize in specific industries and standardize their services for efficiency and reliability. In specific sectors, such as consumer electronics, more multichannel fulfillment centers will emerge that deliver both to stores and consumers.
- Pioneers in omnichannel logistics will experience a significant increase in sales and increased customer loyalty.

worthwhile to go to the store and save on shipping charges. Research by VU University ([Heikamp, 2013](#)) among 300 consumers shows that up to a price difference of EUR 4.--, people hold a significant preference for home delivery. HEMA charges, depending on the size of the package, between EUR 1.95 and EUR 9.95 shipping for home delivery, while store pick-up is free. An overwhelming 70 percent of consumers pick up from the store. While collecting their parcel, they often fetch something extra and HEMA is pleased with this additional retail sales. Price is a success factor, although consumers may want to spend a few bucks for some extra convenience.

Consumer Experience

What stores offer in addition to the Internet is the consumer experience, the nice atmosphere in the store. Another study of the VU University ([Stek, 2013](#)) among 1,200 online customers of fashion retailer [Cool Cat](#), pre-dominantly teenage girls, shows that they are willing to travel 29 minutes extra on average to pick up their online purchases in a Cool Cat store vs. an affiliate of sister company [MS Mode](#). So the shopping experience counts, it is nice to visit a store. Consumers can view, hold, try and fit products and get advice from the staff. Consumer experience is a success factor .

Daily Purchases

The relative importance of the consumer experience differs between products. For everyday purchases emphasis is on convenience, while the experience weighs heavier for occasional purchases and luxurious sustainable goods.

Showrooming

It is important that the store converts the consumer experience into sales. *Showrooming* is a trend whereby consumers view products in the store and meantime buy them via their smartphone on the Internet for a better price. Modern developments in *near field communication* make it possible to get ahead of the online competition by sending directed offers to their smartphones, depending on their location in the store. Here, too, convenience plays an important role. The consumer is already in the store, so what is easier than immediately taking away the product or getting it delivered to your home? Omnichannel, once again, can make a difference.

Best of Both Worlds

How can we combine the success factors of online and offline retail: choice, convenience, price and consumer experience? We want best of both worlds, a situation where it no longer matters where stock is located or through which channel



Figure 1. Linear supply chain.

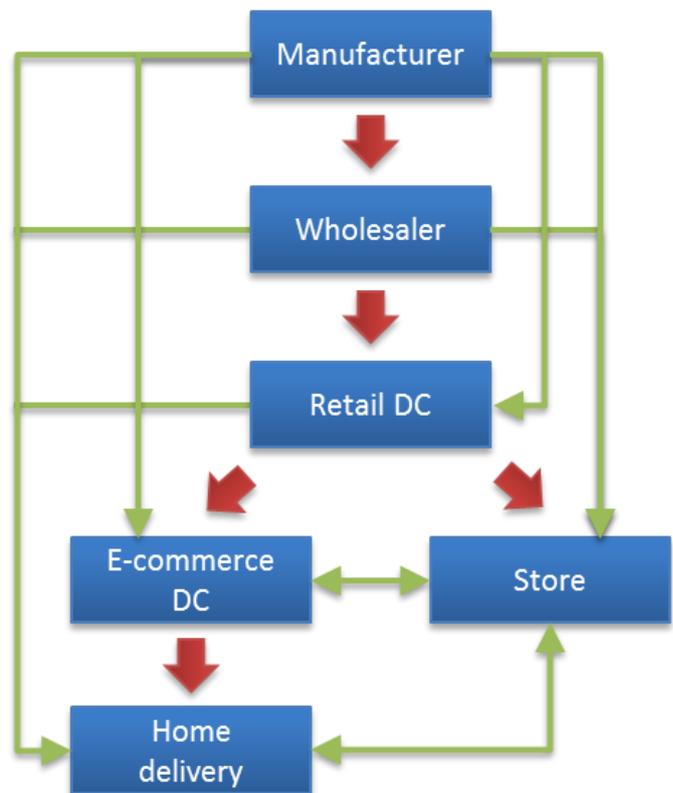


Figure 2. Responsive supply chain.

the consumer presents itself. This changes the sales process, yet the impact on the supply chain is much bigger.

Responsive Supply Chain

Traditionally, products flow from manufacturer to wholesaler and via the retail DC to the stores or ecommerce DC (Figure 1). A split linear supply chain with little or no cross-links. With omnichannel logistics this turns into a responsive supply chain with many cross-links (Figure 2).

Crowd-sourcing

There are lots of stocks located throughout the supply chain. If we start with the retailers, we find stocks in distribution centers, e-commerce DCs and in stores. Furthermore, there are purchases underway from suppliers in trucks and ships and return goods are coming back from consumers. Moreover, products are held elsewhere in the supply chain at manufacturers, distributors, wholesalers and other retailers. Finally, we could even think of second hand goods from consumers. Not only market places such as Marktplaats.nl and eBay do crowd-sourcing, also large web shops like amazon.com and bol.com are successful with used merchandise.

Ship-from-shop

To give consumers the widest choice, the greatest convenience and a consistent consumer experience, we must create a responsive supply chain in which all of these stocks are readily available for sale through all channels. By keeping inventories low, a clever routing of goods flows and efficient handling, we can also keep costs down. A popular example is *drop-shipping* where a supplier, who has the product in stock, ships the order directly to the consumer on behalf of the retailer. Another variant is *ship-from-shop*. Consumer orders do not come from the e-commerce DC, but from the store. For instance, retail chains Perry Sport/Aktiesport and Expert are successful with this concept in the Netherlands.

End-to-end Supply Chain

Omnichannel logistics does not only impact retailers, it changes the whole supply chain. We examine the impact on the various links in the end-to-end supply chain:

- Retailer
- (Brand) manufacturer
- Wholesaler
- Logistics service provider

Retailer

We start at the retailer. The challenge for retailers is to prevent any lost sales. This means that the total online and offline stock should be available on the shop floor as well as in the web shop. If a consumer cannot find a product in the store, he can directly place the order through a touchscreen, smartphone or the tablet of the sales clerk and pay as you can see in the [video](#) below. Since such a portal can accommodate many products, retailers can easily extend their ranges with products that are not normally in stores. These products may come from the e-commerce DC or via drop-ship directly from the supplier.

In the U.S.A., we see that major retailers [Macy's](#), [Sears](#) and [Wal-Mart](#) are successful with ship-from-shop. Macy's claims that the company is converting sales floor in department stores to storage space to enable efficient handling of consumer orders. Stores change into mini-warehouses from which orders are picked on behalf of the web shop and the stores. By shipping orders, in particular, from stores that are overstocked, retailers get better margins since fewer products are marked down in the sales.

Furthermore, ship-from-shop is a run up to same-day delivery. Retailers can deliver consumers on the same day from a local store, something which is not possible in the current distribution networks of parcel carriers. The rise of city distribution in the Netherlands will play a major role in this field.

Opportunities for retailers are:

- Fewer lost sales in stores and on the web
- Higher margin by limiting mark-downs
- Wider (virtual) product range
- Less obsolete stock
- Lower inventory levels
- More satisfied customers

Brand Manufacturer

(Brand) manufacturers traditionally deliver to wholesalers and retailers. Nevertheless, the direct channel to the consumer is particularly interesting since margins do not need to be shared with wholesale and retail. [Nike](#) and [Apple](#) are examples of companies that supply both to consumers and to wholesale and retail.

Strong brands get away with it. However, many manufacturers face a dilemma because suddenly they become the competitor of their own customers which does not benefit the relationship. Manufacturers can then choose to offer drop-shipping as a service to their customers. Moreover,

existing distribution centers of manufacturers often are not suitable to deliver consumer orders. This requires considerable investments in productive piece-picking methods in the warehouse or the manufacturer should decide to outsource its direct-to-consumer logistics operation. More dilemmas.

Altogether, inventory risks in the responsive omnichannel supply chain shift upstream. However, for manufacturers (and wholesalers) this risk is less severe than for retailers, since they still can sell stocks across multiple clients. Certainly, retail stores will more and more offer slow-moving items (long tail) in virtual form.

Opportunities for (brand) manufacturers are:

- Direct contact with consumers
- Additional distribution channels in retail and e-tail, also for obsolete (old season) stocks
- Wider (virtual) product range available to customers (long tail)
- Greater customer loyalty

Wholesaler

The wholesaler is between the manufacturer and the retailer. In the responsive omnichannel supply chain the wholesaler will lose revenue to manufacturers who supply directly. However, the manufacturer must have sufficient volume to be able to deliver small orders efficiently. The wholesaler has a wider assortment and relatively smaller orders than the manufacturer which makes the leap to the consumer channel less complex.

This is an opportunity for wholesalers. Thus, wholesaler of technical consumer electronics [NEDIS](#) is expanding its Dutch distribution center with mechanized picking systems to be able to deliver both the traditional channels as well as large numbers of online orders. In this way, the wholesaler provides an excellent opportunity to web shops to offer an interesting assortment while keeping hardly any stock of their own. Most of the orders go as drop-shipments to the customers.

Opportunities for wholesalers are:

- Expand own range with virtual stock (one-stop-shop)
- Additional distribution channels in retail and e-tail (drop-ship)
- Easy availability of virtual assortment for retailers (long tail)
- Greater customer loyalty

Logistics Service Provider

Also for logistics service providers things will change. On the one hand, turnover in e-fulfillment will continue to grow since many manufacturers

and e-tailers outsource their direct-to-consumer logistics. On the other hand, a portion of fulfillment activities shifts to stores. All in all, omnichannel logistics leads to smaller orders, which creates opportunities for logistics service providers who are able to do this properly and efficiently. [CB](#) is such a logistics powerhouse. The logistics service provider from Culemborg (NL) has a highly mechanized warehouse from which it ships 300,000 to 500,000 books per day, including those for [bol.com](#). CB now is expanding its services to the fashion and healthcare markets. Through scale economies, standardization and specialization, logistics service providers can deliver reliable and efficient services and become unbeatable in certain markets.

Opportunities for logistics service providers:

- Growth in e-fulfillment and value added services
- Strategic collaboration opportunities and new business models
- Consolidation of goods flows of manufacturers and retailers
- Lower threshold for outsourcing through standardization and specialization

New Ways

Brand manufacturers, wholesalers and retailers who want to go omni-channel, cannot achieve this from one day to another. It involves new ways of selling, different IT and logistics and a review of the assortment.

Growth Path

We propose a growth path with four stages of maturity. Since there are no clear role models for omnichannel, we suggest to start with experimenting, then to lay a solid foundation and develop it into an omnichannel operation that fits your company and its supply chain.

Four Stages

We will discuss the four stages in consecutive order:

- Pioneers stage where companies are experimenting with multiple channels
- Foundation stage which lays a foundation for the future
- Responsive stage in which sales channels are integrated
- Virtual stage where the whole supply chain is unleashed

1. Pioneers Stage

In the pioneers stage, the company starts supplying through multiple sales channels. Channels are

separated. So it is rather multichannel, than omnichannel. It is difficult for companies to design an omnichannel supply chain from scratch since no clear role models exist in the Netherlands. Moreover, the dynamics varies widely between industries. There is no one-size-fits-all!

Experiment

The primary objective of the pioneers stage is to experiment. What is doing well? What about returns and customer preferences? And what does it all cost? It is important that companies make good use of this start-up period to make the right choices for the future.

Fire Fighting

Logistics in the pioneers stage is not yet efficient and reliable. E-commerce orders are handled with the current resources within the existing network. This, in itself, is not so bad, because volumes are still low. Nonetheless, often things go wrong and considerable efforts are needed to get the packages out of the door every day. Employees are in a constant state of fire-fighting, so there is no time left to solve problems in a more structural manner. At this stage, it does not make sense to start with omnichannel. Research, which can be found in [Van den Berg \(2012\)](#), shows that a majority of logistical operations are still in this stage .

2. Foundation Stage

We often see that companies remain in pioneer mode, while sales volumes grow. Then they make unnecessary costs and service levels remain below par. Omnichannel is highly competitive and requires clear choices and streamlined processes that are efficient and reliable .

Transparency

After pioneering, the next step is to lay a foundation for the future . Analyze data and identify opportunities. Create transparency: Performance metrics (key performance indicators), formal service level agreements (SLAs), formalized processes (standard operating procedures) and cost transparency (activity-based costing) ensure that managers are no longer overwhelmed by problems, but they see them coming and are able to anticipate.

Convenient Arrangements

Use transparency to re-shape processes. Be creative in finding solutions to problems. This may include training and motivating staff, adapting methods and tools used, introducing modern IT or making

convenient arrangements with suppliers and customers.

Apparel Retailer

For example, the Belgian retailer [Veritas](#) redesigns its warehouse to deliver to stores and e-commerce. Also, outsourcing of e-commerce logistics to a fulfillment company is an option, that for instance [V&D](#) and [Blokker](#) have chosen. Make sure, however, that you maintain control over the operation and sufficient transparency is available.

Continuous Improvement

In addition, this is not a one-off exercise. Continue to use the transparency for continuous improvement. Growth and market developments may cause that processes which function well, become obsolete after a while. Only then, you can be certain that your foundation is solid.

3. Responsive Stage

With a solid foundation, it is easier to implement new business models. The third stage is the responsive stage. In this stage, sales channels are integrated, creating a responsive supply chain in which it no longer matter where stocks are located or through which channel the customer arrives.

Available-to-promise

This change requires sophisticated IT support with a view on all available inventories. Typically, inventory levels are kept in multiple information systems. Consider ERP, WMS, web shop and cash register systems, each with their own inventories. Manufacturers, wholesalers and retailers who want to go omnichannel, have to consolidate their inventories in a central information system so that they become available for order-processing. Also, the system must determine in an intelligent manner where stocks should be located, from which locations orders should be shipped, how long that will take (available-to-promise) and which is the best route.

DOMS

Traditional business systems such as ERP, TMS and WMS do not provide adequate support for these functions. A recent addition to the IT landscape is the distributed order management system (DOMS). This system automatically orchestrates goods flows across multiple links as shown in the above [video](#). It enables efficient and reliable omnichannel logistics and saves a lot of time for staff. Providers of DOMS include [Manhattan](#), [IBM](#) and [Istia](#).

Touchscreens & Tablets

In stores, the company displays virtual stocks through touchscreens ([Jeans Centre](#)) or tablets ([de Bijenkorf](#)), so customers have immediate access to the full product range. Orders are shipped from distribution centers or directly from stores. Picking and shipping parcels from stores is a new feature that is also supported by DOMS. In the responsive stage, the company creates an omnichannel supply chain in which customers always have access to the full product range and can be serviced via all channels.

4. Virtual Stage

In the previous stage, the company used intelligent IT to create a responsive supply chain. Processes run smooth and IT orchestrates the whole. In the virtual stage other companies are linked into the omnichannel supply chain to make even more products available. Manufacturers, wholesalers and retailers set up mutual agreements and share information on product master data, inventories, prices, response times and orders.

Trading Platform

Since it is difficult for companies to link to all supply chain partners through interfaces, it is recommended to use a trading platform. Through such a platform, for example [Onetrail](#) or [e-Trade](#),

companies link via a single connection to multiple vendors in a particular industry.

Long Tail

A good example is the BAS group. The company behind retail chains Mycom, Dixons and iCentre introduced tablets on the shop floor so that shop attendants can help consumers with their online purchases. Long tail items (slow movers) are not kept in stock. Instead they are ordered directly from suppliers and delivered via cross-docking on the DC in Almere to the consumer.

Conclusion

This year, 2014 is a pivotal year for omnichannel. Many brand manufacturers, wholesalers and retailers see opportunities and want to move forward quickly. We therefore recommend to start soon, but with the right things. So first experiment and analyze, then build the new logistics operation, to finally be ready for the real thing and grow to a virtual omnichannel supply chain that fully meets customer expectations. Evidently, we would like to hear what you have achieved in 2015 and good luck with your endeavors!

Jeroen van den Berg Consulting is a consultancy with specialisation on the cutting edge of commerce and logistics in a changing world. For more information you may contact us at the address below.

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