

Expert Group

Innovation & Omnichannel E-Fulfillment

Omnichannel Logistics Will Make the Difference in 2025

Takeaways

1. Seamless logistical integration between physical and online stores can boost the profitability of online stores while allowing brick-and-mortar stores to stay open.
2. Online retailers will be working with a large number of logistics providers, who will also start cooperating with each other. The environment is an important factor in this process.
3. IT platforms will become important ways to share information and advanced algorithms that allow for the effective and efficient execution of diverse logistical operations.

Host



rijksuniversiteit
 groningen

Chair



The Challenges and Success Factors of Omnichannel Commerce

The market is expanding, competition is increasing and consumers are becoming increasingly demanding. High time, then, to take another look at the classic marketing choice between differentiation and competitive pricing. Many online retailers became big by offering low prices, but for most players this is not a viable long-term strategy.

In the near future, online retailers will increasingly attempt to stand out through service and delivery, which is why the range of delivery options continues to increase. Nowadays, customers can have their goods delivered in less than an hour, for instance, or opt for low-emission delivery. This wealth of options increases the complexity of logistics. At the same time, brick-and-mortar stores are looking to provide added value in a world increasingly geared toward e-commerce.

1. Omnichannel Logistics

So far, the *omnichannel* concept has mainly been applied in the context of marketing and customer experience. An effective omnichannel marketing strategy enables consumers to experience various channels (brick-and-mortar stores and online) as a coherent whole. Many companies have succeeded in implementing the omnichannel philosophy in this domain, but an omnichannel approach to service and logistics is a long way from being the standard. Online order processes are often separate from the processes used to deliver items to stores. This can inhibit the growth and development of both channels, with retailers missing out on opportunities to provide excellent service. Several examples of questions surrounding the development and implementation of an integrated omnichannel philosophy for logistics include:

- Online orders are often delivered to consumers within 24 hours, or even on the same day. Would it be possible to replenish store stock just as quickly?
- Can online orders be shipped from stores that do have a particular item in stock, if the central warehouse does not have it?
- Can consumers see online whether an item is in stock in store? And is the information they see correct?
- Will same-day delivery be the new next-day delivery, or will we even see the rise of next-hour delivery? In that case, items will have to be stored in closer proximity to consumers. Could traditional stores become a game-changer in the race for speed?
- How can multi-carrier shipping be automated based on customer needs?
- How can peaks and troughs in the logistics workload be leveled out?
- Which delivery option is best for society and the environment?

It is obvious that the boundaries between online and offline will continue to dissolve, but it is still unclear which logistical concepts this will require.

In a few years' time, we might have returned to simply referring to good old *shopping*, because we have lost all ways to distinguish between physical shopping and e-commerce. In this blue paper, we will focus on stock management, last-mile distribution, cooperation throughout the chain and the role that block-and-mortar stores will have to play.

2. Stores in an Omnichannel Retail Environment in 2025

There are more and more different ways to order products and services online. At the same time, crowds are increasing in cities and stores, and brands are choosing to open up brick-and-mortar locations, including stores in successful retail outlet centers. The most important factor here is that most online stores do not make a profit, and if they do, it's mainly due to other activities, such as services or *cloud computing*.

In the age of omnichannel retailing, the main challenge retailers face is building profitable customer relationships. Coolblue's Pieter Zwart is frank about his take: "E-commerce is the dumbest business model in the world. It's almost impossible to make money with online stores." Ultimately, online stores will have to start making a profit and organize themselves in a way that enables them to do so. Nowadays, virtually all retailers have an online presence. All that's missing is a new business model to go with it. That's where the future of omnichannel lies.

2.1 The Functions of Brick-and-Mortar Stores and Online Stores in 2025

More and more brick-and-mortar stores and online stores will work together to provide a single, effective customer journey. Global players such as Alibaba, Zalando, Facebook and Amazon are focusing on the interplay between online retail, customer data and brick-and-mortar stores. Most of the companies in the Twinkle Top 100 have embraced the omnichannel philosophy. The only exceptions are (1) low-cost retailers with successful brick-and-mortar stores who do not have a strong online presence and (2) niche players who focus on a very specific target audience.

Currently, consumers wishing to see and touch a product before purchasing it online or offline can still do so in brick-and-mortar stores. But what will happen when the number of brick-and-mortar stores starts dwindling? Consumers will still want to see products before they buy them, so online retailers will be forced to ensure that brick-and-mortar stores remain in existence. However, the reverse also applies: fewer and fewer consumers will be willing to go to stores where they run the risk of discovering that the item they were looking for is sold out. In other words, having an online presence will become increasingly important for brick-and-mortar stores.

What Are the Functions of Brick-and-Mortar Stores and Online Stores?

1. Brick-and-mortar stores make products visible, deliver orders, and provide service and added value for purchase decisions (57% of consumers prefer buying items in a physical store, even if they did their research online, compared to 15% who prefer online purchases).¹
2. Online retailers will start working with brick-and-mortar stores to provide a single customer journey, with the functions of orientation, trying, choosing, configuring and purchasing items, service, and relationship management.
3. We will be seeing brick-and-mortar stores with store-in-stores for various online retailers. Consumers will come here to touch, feel and try items and, ultimately, make a choice. Staff is an important marketing tool.
4. Brick-and-mortar stores will become *white-label* mail and package points where customers can pick up orders placed online or offline, return items and ask any questions they might have.
5. Brick-and-mortar stores (including restaurants, service providers and cultural venues) will have a social function, supported by an online presence, with desks for freelancers, coffee tables to meet new people and share ideas, and practical features such as 3D printers, meeting rooms and central areas for product demonstrations.

1 2018 GFK CONSUMER SURVEY

6. Supported by social media and websites, brick-and-mortar stores will offer new ways to discover items and services, with a highly targeted product range.
7. They will contribute to customers' lives in a variety of ways – ranging from providing services (i.e. relating to food, mobility, fashion and knowledge) and providing artisanal products to contributing to customers' working lives and providing options for entertainment – all supported by the retailer's online presence.
8. Businesses and customers will interact in new ways. Their relationship will be defined by *co-makership*, the exchange of ideas, and close social media engagement.
9. Shopping centers will come to fulfill various functions: stop & shop (at train stations and along highways), known retail formulas & efficiency (city centers), discovering new things & meeting people (retail areas), convenient access to a complete range of products (neighborhood and town centers), and experience (fashion outlets, cultural hubs).
10. More stores will start serving as warehouses that fulfill online orders.

2.2 Logistical Consequences

This will place certain demands on stock management (delivery wherever, whenever), collaboration throughout the chain (flexible, transparent, cost-conscious) and last-mile delivery (control, sustainability, being able to provide multiple options). Online stores and brick-and-mortar stores are both places where consumers come to research potential purchases, as well as serving as transaction and delivery points. The 2018 GfK Consumer Survey also shows that 74% of consumers go to physical stores more often if they can be reached more easily and affordably. 55% of consumers indicated that improvements to the city center result in them shopping at brick-and-mortar stores more. Delivery and service can also be outsourced to third parties, whether they be based in the city center, at the train station or at park & ride locations. Brick-and-mortar stores and online retailers will have to share the costs evenly. They need each other, and we will help them make this transformation happen.

3. Chain Collaboration in Omnichannel Retail in 2025

We expect that many of the retailers, fulfillment companies, carriers and manufacturers that were timely in joining a network supported by independent supply-chain management platforms will have managed to survive until 2025. These platforms support complex goods flows, characterized by high levels of diversity, from manufacturers through to companies and consumers. The wide range of sales and logistics channels, high consumer demands, legislation, social pressure to increase sustainability and shrinking margins will have forced all parties in the chain to work closely with one another.



Organizing e-commerce logistics, now and in the future

3.1 Chain Management

Independent supply-chain management platforms will emerge in order to cope with this increased complexity and diversity, providing access to all the required data, transparency, and insight into the chain for all parties involved. Furthermore, various decision models will be linked to the available information. These decision models will give consumers a range of options, allowing them to select their preferences, including sustainable options. Order processing will be based on physical product properties, customer location, transport costs and capacity, fulfillment costs and capacity, stock availability and stock location, throughput times, and carbon emissions. The platforms will allow all parties to clearly see what could, will, and should happen at what point in time, as well as monitoring the process and ensuring proper communication. Brick-and-mortar stores are managed by the platforms, and feed the required data and updates back to the platforms. The platforms are linked to the systems used by retailers, carriers, online stores, marketplaces, hubs and warehouses.

Platform members will provide relevant information, such as necessary conditions (what is and is not possible), logistical data and available capacity, so that this information can be processed by the platform. Based on this data, the platform will calculate, show and/or initiate shipping, delivery and collection options for multi-store, multi-warehouse and multi-carrier shipping. These platforms will not be large data archives. They will restrict themselves to collecting logistically relevant data, which can be requested by the right party at the right time.

3.2 Impact

The use of platforms will give consumers more options and boost customer satisfaction, as well as increasing awareness of sustainability. Logistical service providers, meanwhile, will be able to specialize without having to sacrifice volume and will achieve higher fill rates, *volume shaping*, route optimization, capacity management and cost savings. Retailers (including online retailers) will be able to provide tailored services and greater reliability and flexibility, which will boost sales and drive down costs. Governments can fulfill their responsibility to the retail sector by introducing legislation and incentives to promote sustainability.

3.3 Examples

The best examples can be found in the tourism industry and passenger transport, such as Booking.com, Uber and Airbnb. Logistics platforms do exist, but right now they are not representative of where we expect to be by 2025. Below you will find several examples, along with any points of attention, if applicable.

	WHS cost calculation	Carbon footprint calculation	Front-end management	Capacity management	Chain management and control
www.deliverymatch.eu	X	X			
www.shipitsmarter.net	X	X	X	X	
www.transsmart.com/nl	X	X	X	X	
www.luckabox.ch	X	X	X	X	X*
www.paazl.com/nl	X	X	X	X	X*
www.metapack.com/	X	X	X	X	X*

* Does have connectivity

Platforms in the logistics sector, including any points of attention if applicable

4. Stock Management in Omnichannel Retail in 2025

The traditional supply chain consisting of manufacturers, wholesalers and retailers will no longer exist, and everyone will have direct access to customers. New supply chain players will have entered the market, such as platforms that bring together supply and demand. In this context, how can companies best organize and make use of their stock in such a way as to meet all demands?

4.1 Decisions

Every supplier, ranging from retailers to producers and from platforms to wholesalers, will have to make important decisions:

1. Should I keep my own stock or should I outsource this?

The more the e-commerce market expands, the more opportunities will arise for outsourcing, by means of drop shipping, for instance.

2. Where should I keep my stock?

Faced with growing sales and pressure to deliver more and more quickly, companies will find keeping products in various locations to be an increasingly attractive option. The majority (27 out of 35) of the surveyed ShoppingTomorrow experts think that it will be common practice for online retailers to ship orders to Dutch customers from various locations in the Netherlands, such as regional warehouses and stores, by 2025. For more information, see the image on page 220.

3. How much stock should I keep in each location?

Determining optimal stock levels is challenging even now, but juggling multiple locations will add an extra layer of complexity.

4. Which stock should I use to fulfill an order?

If you know where your stock is, you can decide which stock location to use for fulfillment on an order-by-order basis.

4.2 Complexity

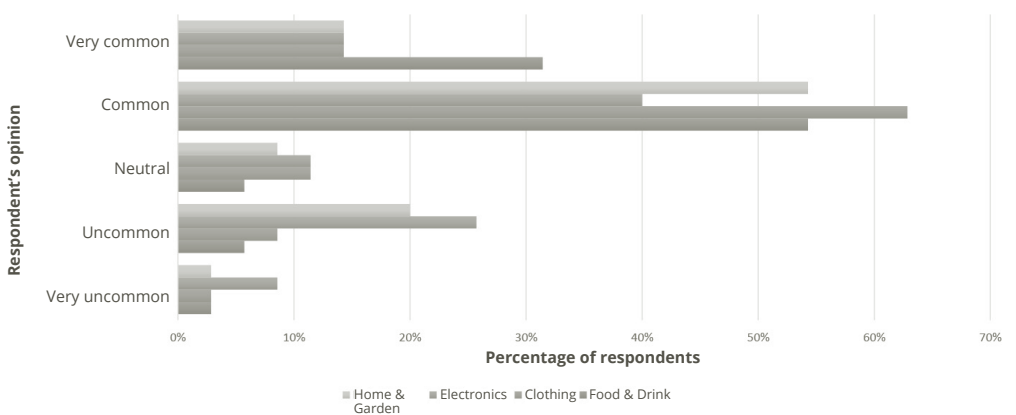
If you have many different stock locations, answering these questions will be particularly difficult. That, however, is exactly the direction that e-commerce logistics is heading in. Many considerations can play a role, including:

- stock reliability at the various stock locations;
- the desired delivery time/service level;
- logistics costs per stock location (picking, packing and last-mile distribution);
- operational impact (picking, packing and shipping from a store);
- impact on franchisers: opportunity or threat?;
- activity at stock locations, such as brick-and-mortar stores, at different times of the day.

Optimization software, featuring complex algorithms capable of making the right decision time and again, will be required.

Service characteristics	Outsourced	Central ware-house	Regional ware-house	Store
	<i>upstream</i> ← → <i>downstream</i>			
Delivery time				Essential when dealing with very short delivery times, such as same-day delivery
Custom products (printed items, sawn-to-size items, special packaging and customized projects)		Central infrastructure typically requires central inventory		

Product characteristics	Outsourced	Central ware-house	Regional ware-house	Store
	<i>upstream</i> ← → <i>downstream</i>			
Stock rotation		In the event of low stock rotation, it's helpful to have maximum access to the entire stock network		
Perishables				This type of stock is well suited to brick-and-mortar stores, as this boosts freshness through increased rotation
Long-tail stock	For long-tail stock, it is preferable to keep stock levels (and capital levels) in the network as low as possible			
Batch/one-off stock	For batches, it is preferable to keep the available stock in a central location, in order to achieve maximum allocation			Stock for in-store sales
Customer-specific products with a short lead time			Products for a single customer or a small group of customers	
Commodity stock (such as washing machines)	These products are suited to a showroom approach with delivery from a large, central warehouse			
Customer favorites (products that customers specifically turn to you for, such as Pampers)		You should not share these products with your network – make sure that you stay in control		



The expectations of the ShoppingTomorrow experts for four different sectors. Will online retailers use their brick-and-mortar stores to fulfill e-commerce orders in the Netherlands in 2025?

4.3 Examples

Case 1:

A few years ago, a well-known DIY chain launched an online operation based in its many stores (downstream). The idea was to improve stock rotation and to boost proximity to the customer (quick delivery). However, this chain is now transferring its online stock upstream to a central warehouse, because:

- stock reliability in brick-and-mortar stores is too low;
- they want to prevent disruption in stores;
- they want to reduce logistics costs.

Case 2:

A pure online player is currently setting up small warehouses on the outskirts of major cities, with the main objective of achieving faster delivery times.

Case 3:

A large fashion chain wants to speed up delivery times by using in-store stock to fulfill online orders. However, the chain only offers this service in the country's largest cities, which means it only grants access to in-store stock where necessary. This makes the concept more manageable for the chain.

5. The Last Mile in Omnichannel Retail in 2025

The last mile is set to improve significantly in the near future. By 2025, we expect there to be an integrated approach, driven by consumers and the government. The two key questions here are:

1. How do you deal with multiple shipping options?

Consumers can choose where and when they want their order to be delivered. The challenge is to offer consumers all options in a way that is commercially viable.

2. How can you re-evaluate the environmental and social impact?

The challenge is to deliver packages as responsibly as possible, taking congestion on roads and in urban areas into consideration.

Currently, many retailers and logistics service providers do not see the need to join forces to address these issues: at the moment, for instance, packages cannot yet be transferred smoothly from one carrier to another, even though this would allow for optimally effective delivery. We believe, however, that a system based on cooperation could be the basis for effective solutions:

- Logistics platforms that do facilitate and coordinate cooperation between carriers (see chapter 4) are expected to play a major role in 2025. Failing to join forces will probably result in major international retail platforms seizing the monopoly, including in the field of logistics.
- We expect the government will lay down some clear rules where the social and environmental impact of logistics is concerned.

The expert group therefore asked itself the following question: “How can we classify and rank existing and future delivery options in terms of convenience (for consumers) and impact (on society)? And – not unimportantly – how can we link this to a realistic pricing structure?”

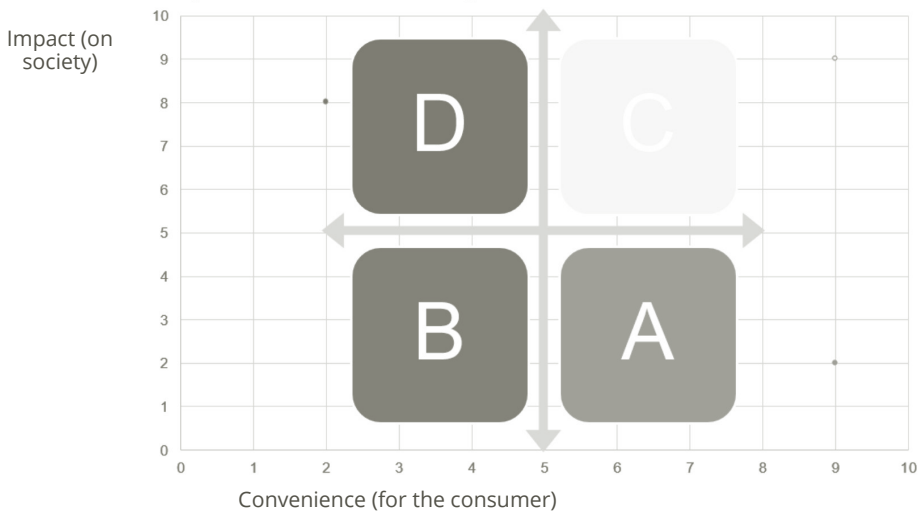
6. The Last-Mile Delivery Model

To answer this question, the expert group has developed the *Last-Mile Delivery Model* (LMD, see image on the following page): a governance model that maps and ranks last-mile delivery solutions based on convenience for consumers and impact on society.

We believe that the LMD model will only work if there is clear guidance from the government, as with the EU Ecolabel scheme and flight tax, for instance. There is a need for a label that gives consumers and other stakeholders insight into the impact of last-mile delivery solutions, as well as any fines or rewards associated with a particular solution. A recent ShoppingTomorrow study revealed that 60% of the experts surveyed consider the introduction of such a label to be necessary and believe that a tax may have a regulatory effect.

In line with the EU Ecolabel, we distinguish between four labels (quadrants) in the LMD model.

4 LABELS (quadrants)



EXPLANATION

- | A | B | C | D |
|---|---|---|--|
| <ul style="list-style-type: none"> • High convenience and low impact on society • → ideal scenario, to be supported fully | <ul style="list-style-type: none"> • Low convenience and low impact on society • → support measures that will boost convenience | <ul style="list-style-type: none"> • High convenience and high impact on society • → tax high impact and support measures that will reduce impact | <ul style="list-style-type: none"> • Low convenience and high impact on society • → reject |

The Last-Mile Delivery Model

In the LMD model, the aim is for all last-mile solutions to fall into the A quadrant. Regulation and guidance should be in place to encourage stakeholders in the other three quadrants to move towards the A quadrant. An LMD tax could and should be a strong incentive.

6.1 Scenarios

In the scenarios below, we will outline how the LMD model would work for each individual quadrant:

- Quadrant A: A customer in the center of Utrecht opts for city-hub delivery with a carbon-neutral last mile. Example: home delivery by bicycle courier at a time of the customer's choosing (low last-mile tax).
- Quadrant B: A customer in the center of Amsterdam opts for city-hub delivery with a carbon-neutral last mile, with lower convenience. Example: pickup at a locker station (low last-mile tax).

- Quadrant C: A customer in the center of Rotterdam wants same-day delivery with a two-hour time window in the evening. The distance per delivery is relatively high, resulting in a high last-mile tax. Should the logistics service provider also opt to have an outdated diesel vehicle make the delivery because of the distance to be traveled, the tax could be increased further, or the delivery option may even be impossible (high last-mile tax).
- Quadrant D: Many of today's delivery options belong to this quadrant (high last-mile tax).

7. Conclusion

The term “omnichannel” is mainly used in the context of marketing and customer experience, but an omnichannel approach to service and logistics is still a long way from being the standard. Online order processes are often separate from the processes used to deliver items to stores, even though seamless logistical integration between physical and online stores can boost the profitability of online stores while allowing brick-and-mortar stores to stay open.

To be able to cope with the increased complexity and diversity of logistics in 2025, independent supply-chain management platforms will emerge, providing access to all the required data, transparency, and insight into the chain for all parties involved. Furthermore, various decision models will be linked to the available information, which will give consumers a range of options, allowing them to select their preferences, including sustainable options.

We will need optimization software featuring complex algorithms that are capable of making the right decision time and again when it comes to things like stock management. The four essential questions that retailers will have to answer in this context are:

1. Should I keep my own stock or should I outsource this?
2. Where should I keep my stock?
3. How much stock should I keep in each location?
4. Which stock should I use to fulfill an order?

Closer cooperation between logistics providers will be necessary to ensure high service levels while reducing environmental impact. That is why this blue paper presents the Last-Mile Delivery Model, which can be used in the decision-making process in order to strike a good balance between service and the environment.

HOSTS



Nicol Saaltink
E-Global Project Manager
University of Groningen



Kees Jan Roodbergen
Professor of Logistics
University of Groningen

CHAIR



Robert Goedegebuure
Logistics & Economics Researcher
Fontys University of Applied
Sciences, Tilburg campus – Digital
Business Concepts

Expert group members



Arjan Levisson
*Sales & Business Development
Manager*
Slimstock



Bastiaan Hoekstra
Supply Chain Manager
HANOS



Brecht Swanenberg
*Interim New E-commerce Business
Specialist*
Heineken International



Brigitte Hulscher
Senior Economy Adviser
City of Utrecht



Carien Gorter
*Online Marketing and E-Commerce
Professional*
Onlinesucces4U



Don Manders
Major Fulfilment Account Manager
DHL Parcel



Eduard Plate
Consultant and Manager
EduardPlate.nl | Extenzio



Esther Vrolijk
Sr. Liaison Officer
Ingram Micro Commerce



Gert Koudijs
Branch Secretary
Vereniging van Postretailers (Dutch
Association of Mail-Order Retailers)



Jacob Otter
*E-Commerce Fulfilment Center
Programme Manager*
HEMA



Jan Mannaerts
New Retail Expert
NP5



Jelmer van der Gaast
Researcher
University of Groningen



Jeroen Bouman
Supply Chain Business Consultant
Centric



Jeroen Kammers
Director/Co-Owner
TLogistics Fulfilment Solutions



Lizet van de Kamp
*Client Service Director, Shopper &
Retail*
Ipsos B.V.



Marjolein Poland
E-Commerce Manager
Siebel Jewelry



Mark Klievink
Project Manager
CEVA Logistics



Martijn Moerkerk
*Senior Manager of Business
Improvement & Transformation*
TriFinance



Martijn Verkerk
Online Operational Manager
Welkoop Retail B.V.



Michiel Vos
Founder & Owner
Zupr



Pascal Fonville
Manager, Supply Chain Management
T-Mobile Nederland



Raymond Cohen
Supply Chain Manager
De Bijenkorf



Robert van Kalsbeek
Partner
The Next Practice



Roel Megens
General Site Manager
Blokler



Dr. Roland Slegers-Leijsten EMIM
CEO and Founder
DeliveryMatch BV



Sonja Kester
Drop Shipment Vendor Manager
Maxeda DIY Group



Stefan Vanluyten
Founder - Business Development
GEORGE Parketbrievenbussen



Victor Ponsoien
Managing Consultant
Districon

Other contributors to this blueprint:

Pieter Post
Principal Retail Consultant
Mirabeau B.V.