The rise of instant on-demand delivery and the role of darkstores

INTRODUCTION

As the worldwide popularity of online shopping grows and competition within the sector increases, the online shopping landscape is shifting to a more dynamic environment. Over the years, online retailers have learned that last-mile services are a key differentiator from their competitors. However, the last-mile is often still carried out in a very inefficient, costly and environmentally harmful way. Moreover, last-mile delivery is strongly driven by consumer expectations, making it one of the most complex parts of the whole supply chain.In a continuous struggle to remain competitive, retail giants are increasingly determining consumer expectations. Consumers are becoming conditioned to expect instant gratification. This expectation is rooted in digital media platforms, as well as in the increasingly competitive delivery standards set by e-commerce giants like Amazon. As a result, consumers have become increasingly demanding in regards to delivery speed, costs and flexibility.

A few years ago, consumers found it perfectly normal to wait a few days for their order to arrive. Nowadays, retailers can no longer permit those long delivery times. 24-hour delivery has become the norm, but it needs to be even faster. Consumers want to receive their order wherever and whenever they want. Same-day delivery is a step in the right direction, but delivery within an hour or faster, is even better. The so-called instant on-demand delivery services are on the rise that can't be stopped. Retailers that can't offer such instant gratification will lose customers and miss out on potential business.

In this white paper, we describe the rise of instant on-demand delivery, how it can help to overcome the complex last-mile and what role dark stores can play in this.

The complex last-mile

Last-mile delivery is the last leg of a journey comprising the movement of goods from a distribution hub to the final destination. That final destination could be a consumer's home, an office, a store or a carrier-designated pick-up station. The goal of last mile delivery is to deliver an item to its recipient in the quickest and most affordable way possible.

But this is easier said than done. Last-mile delivery is strongly driven by consumer expectations and is often still carried out in a very inefficient, costly and environmentally harmful way, making it one of the most complex parts of the whole supply chain.

CONSUMER DEMANDS

Online shopping has become an indispensable part of our daily life and the number of online stores is growing every day, making competition more and more difficult. Nowadays, consumers can choose from numerous providers of the same product. As a result, consumers are increasingly demanding towards retailers, especially in terms of delivery speed, costs and flexibility. They want to receive their order immediately, but do not want to pay any delivery costs for this. In addition, they want flexibility in delivery location and time, so that they can receive their parcel at any time and location. Retailers with an online channel can't ignore these customers' demands if they want to maintain and improve their competitive position. But this isn't always easy. Consumers are now expecting services that they weren't expecting before and on which retailers weren't built, making it difficult for these retailers to compete.

UNSUSTAINABLE

The last mile is not only consumer-driven, inefficient and expensive, but often also at the expense of the environment. Due to the strong growth of e-commerce and the demand for faster deliveries, the number of polluting vans that travel back and forth between the distribution centre and consumers' homes is increasing. The great time pressure between the moment of ordering and delivery means that delivery vans are not loaded optimally and that extra journeys are needed to deliver orders that same day. In addition to more transport costs, this inefficient way of shipping orders leads to an increase in carbon emissions, congestion, slower traffic and a decrease in the accessibility of cities.

Cities in particular have to deal with this unsustainable way of running the last-mile. An increasing proportion of the world population lives in cities and this way of living is only going to continue. The United Nations predicts that the global degree of urbanization will rise from the current 55 percent to 68 percent in 2050. For many Western European countries, the degree of urbanization will even rise to 97 percent or more. Many of these urban residents buy their products online, which means that in six years' time at least 500 million e-commerce deliveries will be made in cities every day. For a healthy urban living environment, it is desirable to make city logistics (almost) emission-free. At the same time, the demand for fast on-demand deliveries is growing and the increasing pressure on space in the city calls for solutions to congestion and parking problems.

INEFFICIENCY AND COSTS

Added to this is the inefficiency of the last-mile. This last leg of the supply chain is often the most time-consuming and expensive part of the shipping process, comprising up to 41 percent of the total cost of the delivery. This is because of the sheer volume of end users the items need to be delivered to, rural and urban destinations and the number of failed deliveries.

There are typically multiple stops along a delivery route, from rural areas to cities. Delivering parcels to these different types of locations requires the courier to use local roads, which has an impact on both average speeds and fuel efficiency.

Moreover, there are often long distances between stops in rural areas. As a result, the courier often takes a relatively long time to deliver an individual parcel to the end consumer in those areas. In urban areas, the courier is slowed down by traffic lights, various vehicles on the road, winding streets and traffic congestion. As a result, the driver spends a lot of time on the road, driving or stationary, for a relatively small distance between stops.

In addition, failed deliveries are a large part of delivering products to the final consumer. Not all parcels are delivered with the first delivery attempt. This could be because the receiver was absent, because the delivery address was incorrect or incomplete, or because the courier couldn't access the delivery location. Because of these extra delivery attempts, the courier has to drive back and forth between the distribution centre and the consumer more often, which increases costs.

Instant on-demand delivery

Last-mile delivery is the last leg of a journey comprising the movement of goods from a distribution hub to the final destination. That final destination could be a consumer's home, an office, a store or a carrier-designated pick-up station. The goal of last mile delivery is to deliver an item to its recipient in the quickest and most affordable way possible. But this is easier said than done. Last-mile delivery is strongly driven by consumer expectations and is often still carried out in a very inefficient, costly and environmentally harmful way, making it one of the most complex parts of the whole supply chain.

THE ON-DEMAND ECONOMY

The term 'on-demand' is becoming more and more common in combination with certain services that we use in everyday life. After other economic terms to denote an innovative market such as the sharing economy, now follows the on-demand economy. The on-demand economy refers to a new branch of thew economy that directly fulfils the customer's wishes through apps on the smartphone. This technology eliminates the need for certain intermediaries and suppliers, allowing services in the on-demand economy to be offered more efficiently, effectively and cheaply than in the traditional economy. It also brings speed and convenience. Some of the first examples within the on-demand economy are Spotify, Uber, Airbnb, Netflix and Just Eat Takeaway.com.

INSTANT ON-DEMAND DELIVERY SERVICES

Today, on-demand services have become an integral part of everyday life. This also applies to on-demand delivery services. Instant on-demand delivery services provide on-demand delivery within a short amount of time by connecting consignors, couriers and consignees via a digital platform. It is a set of multiple sales and logistics processes that enable businesses to meet the consumer's needs to purchase an item and have that item delivered to the consumer's preferred location in the most efficient manner.

In the above definition, 'a short amount of time' is mentioned, which is a relative term. It is impossible for delivery services to literally deliver items 'instant', which is the case with streaming services such as Spotify and Netflix. In retail, restaurant or grocery deliveries this is more 'near-instant'.

In addition, it varies by sector – retail, restaurant or grocery – what is an acceptable delivery time for on-demand deliveries. Delivery in less than two hours is generally acceptable, or even fast, for retail, while this is too long a delivery time for restaurant deliveries. Amazon, for example, delivers certain household items within two hours with Amazon Prime Now, which is considered fast in retail, but this delivery time would be far too long for a pizza delivery from the local pizzeria. However, the general trend is that delivery times across all sectors are being reduced further and further in order to remain competitive. Fast grocery delivery services, such as Zapp and Gorillas, nowadays even deliver groceries to the end consumer within 20 or 10 minutes.

With instant on-demand delivery, the ever-increasing expectations and demands of consumers are met. The way e-commerce deliveries are carried out is influenced by consumer demands. Modern consumers are becoming increasingly demanding: they expect fast delivery at a low price or even for free. Moreover, ease of use has become increasingly important. New technologies and the use of the smartphone in the on-demand economy have ensured that courier services are increasingly able to meet these consumer expectations, resulting in a better match between supply and demand.

Instant on-demand delivery is challenging

Instant on-demand delivery has many advantages, but is not always easy to implement. Businesses often don't understand how difficult it is to manage. Instant on-demand delivery services face challenges such as real time vehicle routing, short time frames, driver availability, peak volumes, cost constraints, labour contracts and multiple collection points.

INSTANT ON-DEMAND DELIVERY SERVICES

REAL TIME VEHICLE ROUTING

A major challenge of instant on-demand delivery is real time vehicle routing. With real time vehicle routing, a route and schedule of vehicles is determined to deliver customer orders. This is a challenge when orders come in in real time. In that case, routes must be changed in order to serve new requests in real-time.

SHORT TIME FRAMES

Time constraints play an important role in instant on demand delivery services. Because orders have to be delivered to the consumer very quickly, there is little time between accepting and sending orders. Due to this high time pressure, mistakes can be made quickly. To prevent this, good planning is necessary and this requires automation and optimization.

DRIVER AVAILABILITY

Drivers aren't always available when needed. Because orders have to be delivered quickly with instant on-demand delivery and the fierce competition within the sector, it is not easy to have enough suitable drivers and to schedule them in the most efficient way. In addition, businesses often have to deal with uneven demand.

PEAK VOLUMES

Instant on-demand delivery gets tricky when faced with peak volumes. Peak hours and seasons make it even more difficult to find enough drivers to deliver all orders within the promised delivery time. At that point, companies often struggle to manage delivery coverage and meet their promised delivery times.

COST CONSTRAINTS

Delivering orders at high speed and volume can result in high operational costs. This is especially the case when full digitization, automation and visibility into data are lacking. In that case, for example, orders may not be grouped with other orders in the same time window and area, resulting in higher costs than necessary. In addition, consumer expectations in relation to delivery have increased in recent years, and so have with regard to delivery costs. Consumers now often expect free delivery, which in turn is borne by the retailer.

MULTIPLE COLLECTION POINTS

Previously, especially in the restaurant sector, on-demand delivery companies were mainly focused on collecting and delivering orders from A to B, for example a pizza directly from the restaurant to the consumer. Today, in retail for example, couriers are requested and stimulated to go to multiple collection points to pick up orders and then deliver them to multiple consumers. This slows down the delivery process and complicates route planning.

LABOUR CONTRACTS

With instant on-demand deliveries, drivers are often independent contractors who can accept or reject work opportunities based on their own schedule and availability. It is a characteristic of such contracts that the number of hours to be worked is not clearly defined and that workers do not receive regular salaries. A challenge for companies can be that drivers reject work, or that they switch to another sector in which they earn regular salaries. The latter would create additional scarcity in terms of drivers. However, more and more on-demand delivery companies are hiring employees on a permanent basis rather than using the gig model.

Using dark stores for instant on-demand deliveries

When implemented correctly, instant on-demand delivery services are a lot more efficient, cheaper, easier to use, faster and more sustainable than traditional delivery services. The future of instant on-demand delivery therefore depends on how it is carried out. Fast delivery with traditional forms of e-commerce logistics is difficult to realise due to high costs and pressure on the environment. In order for instant on-demand delivery to be successful, it is therefore necessary to source products locally and to reduce the number of transport movements. Both can be achieved through the use of retail stores (ship-from-store) and dark stores.

WHAT IS A DARK STORE?

The term 'dark store' refers to a miniature warehouse-adjacent space that caters exclusively for online shopping. This can be an existing store during non-function hours or a separate location. It is meant for storage, sorting and handling online orders. A dark store is different from a regular store, because a dark store is completely focussed on fulfilling online orders, while regular stores are more focussed on in store sales. In comparison with a distribution centre, a dark store is located in close geographic proximity to the consumers, which makes it convenient for easy pick-up and/or fast delivery. An alternative to a dark store is ship-from-store, where the store is servicing online customers and in store customers.

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LOCAL SOURCING OF PRODUCTS

An advantage of instant on-demand delivery is the speed with which online orders are delivered to the end consumer at relatively low cost. To achieve this, it is important that those products are sourced locally. When products are not locally sourced, which is the case when using traditional distribution infrastructures, it is impossible to deliver them 'instant' and on-demand. By using dark stores for instant on-demand deliveries, it is possible to source products in close geographic proximity to the end consumer. Dark stores are mostly located hyperlocal, meaning they are close enough to where consumers live to reduce the last-mile delivery cost and enable more seamless and rapid delivery services. In addition, local sourcing of products through dark stores helps to reduce carbon emissions as drivers won't have to travel as far in order to make their deliveries.

LESS TRANSPORT MOVEMENTS

In order to reduce costs and pressure on the environment, while delivering items on-demand, it is important that the number of transport movements with polluting vehicles is kept as low as possible. Again, this can be achieved through the use of dark stores in cities. In this way, products can travel in bulk to the store before they are packed for delivery to the final consumer, while parcels travel thousands or at least hundreds of miles when shipped from a central distribution centre. With the latter method, a lot of air is transported, so that fewer products can be transported in one load. In addition, parcels can be delivered from the local dark store with environmentally-friendly modes of transport, such as (electric) bicycles.

Dark store initiatives

More and more companies are entering the dark store business. Especially, but not exclusively, rapid grocery initiatives have exploded in the last few years. Most of these services offer items that are slightly more expensive than in the local supermarket. In addition, consumers have to pay delivery costs with every order. To achieve profit, upscaling is therefore important for these rapid delivery services. Because these companies are built around a smaller assortment of items, the challenge lies in offering the most ideal assortment to keep consumers happy. It is also important that the delivery area is densely populated, in order to be able to deliver products quickly. Despite these conditions, there has been a huge increase of start-ups racing to gain market share in the delivery space through the use of dark stores. Some of these initiatives are Gorillas, Zapp, Flink, Getir, Glovo and Fillogic.

GORILLAS

Gorillas, founded in 2020, is an on-demand grocery delivery company with the promise of delivering groceries within 10 minutes of ordering by using dark stores. With its slogan 'faster than you', the company emphasizes the speed with which it delivers orders to consumers. At Gorillas, consumers can choose from 2000 essential items, which the company supplies from its dark stores. With its service, the company aims to simplify the grocery shopping process for consumers. Currently, it is one of the fastest food techs to achieve unicorn status. A characteristic of the company is that it has their riders employed on a permanent basis, unlike many other delivery services that still use the gig model.emissions as drivers won't have to travel as far in order to make their deliveries.

ZAPP

Zapp is another instant grocery delivery startup that provides on-demand delivery services around the clock. The company, launched in the summer of 2020, delivers groceries within 20 minutes. Zapp operates a dark store model with its own micro fulfilment centres in Central London, Manchester, Amsterdam and Paris. It uses an all-electric fleet to focus on sustainability. The company has many similarities with Gorillas, such as vertical integration, employed drivers and an aggressive delivery promise. The biggest difference between the two is that Zapp is focused on convenience items and Gorillas on groceries.emissions as drivers won't have to travel as far in order to make their deliveries.

GETIR

Getir is a Turkish start-up founded in 2015. Through its mobile app, it offers an on-demand fast delivery service for grocery items, in addition to a courier service for restaurant food deliveries. The company operates dark stores that are set up in city neighbourhoods and carry limited inventory. Because the dark stores are located in central locations, consumers can receive their order within 10 minutes after placing their order. In its own words, the company distinguishes itself from other rapid grocery services by speed that comes from technology. By means of good user experience design, they want to deliver groceries quickly, easily and reliably. As of May 2021, Getir services are offered in 29 Turkish cities, 3 UK cities, 1 German city, 1 French city and 1 Dutch city.

FLINK

Flink, a German grocery delivery start-up, was founded in 2020. The company is built around self-operated dark stores and a smal assortment of around 2400 items. Speed is one of the company's characteristics, as the company name Flink, which means 'quick' in German, already suggests. Flink delivers its orders within 10 minutes and is active in 24 cities across Germany, France and the Netherlands. With its service it reaches more than 3 million, mainly young, customers.emissions as drivers won't have to travel as far in order to make their deliveries.

GLOVO

Glovo is an on-demand courier service that purchases, picks up and delivers products ordered through its mobile app. It offers multiple services with food delivery being the most popular offering. Glovo's mobile application connects customers with independent local couriers, who acquire goods from any restaurant or shop in a city and also deliver urgent packages for a variable fee. The Spanish company has been rapidly expanding its dark store division of its business, called Q-Commerce (quick commerce), providing speedy delivery from dark stores, where retailers can store goods to be sold via Glovo. The service claims free 30-minute or less delivery of goods from retail brands and supermarkets and operates 24 hours a day. As of April 2021, Glovo has 18 dark stores in Spain, Italy, Portugal and Romania and plans to reach 200 by the end of 2021.

FILLOGIC

Fillogic is a logistics-as-a-service platform for retail that converts underutilized space at retail centres into tech-enabled, micro distribution hubs. The company, founded in 2018, currently partners with the six major mall owners in the U.S. and has access to about 450 of their properties. Currently, Fillogic operates eight hubs across the U.S., with at least 25 set to be up and running by year's end. As hubs, the company does not use empty stores, but uses the spaces in shopping centres that are still completely unused. All orders from retailers are collected in those spaces. Fillogic staff based at each property go to nearby retail stores to pick up merchandise purchased online. Fillogic staff then aggregate and pre-sort the items by freight delivery network and post codes for convenient, consolidated pick-up by parcel carriers.
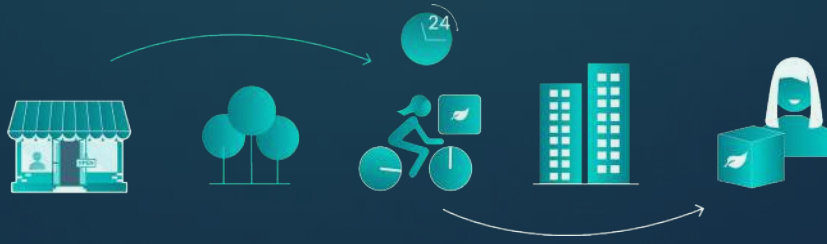
Conclusion

Instant on-demand delivery services have grown tremendously in a relatively short period of time. The popularity of instant on-demand delivery services is increasingly visible on city streets, especially in the grocery area but also more and more in retail, reflecting the growth in society's use of these delivery services. The on-demand delivery economy is not expected to implode anytime soon. Many traditional businesses are now innovating to keep up with the new modern ones, because the benefits of providing instant on-demand delivery services are many. Instant on-demand delivery services are offered more efficiently, user-friendly, cheaper and faster than traditional delivery services, helping to overcome the complex last-mile. However, for instant on-demand delivery to be successful, it is necessary to source products locally and to reduce the number of transport movements, which can be achieved by the use of retail stores and dark stores in inner cities. Turning retail stores into dark stores for the handling and shipping of online orders offers great opportunities for retailers to meet the increasing customer demands in a cost-efficient manner, while saving the environment.

Meet Store Shippers

StoreShippers provides sustainable urban collection services and sustainable same-day and instant delivery in cooperation with bicycle couriers and other eco-friendly couriers around the world. It is the mission of StoreShippers to build a global sustainable ship-from-store network to connect global online visibility with local offline presence. Dark stores are an integral part of our network strategy to provide instant consumer satisfaction.

StoreShippers offers brick and mortar retailers the opportunity to implement a ship-from-store and dark store strategy on short notice. With one IT integration StoreShippers provides access to local couriers in all major cities in Europe and the USA.

DISCLAIMER

The information in this whitepaper is gathered from public sources. The purpose of this white paper is to give a general impression of the rise of instant on-demand delivery services.

Let's connect

We ask bicycle couriers around the world to connect with our platform. Together we can boost sustainable delivery. We invite omnichannel retailers and pure players with an extensive footprint to contact us. Let's boost ship-from-store!

Contact

About the white paper please contact:
Nienke@storeshippers.com

Want to learn more?
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hello@storeshippers.com

Or find and follow us on LinkedIn.