

The urban delivery bet: USD 5 billion in venture capital at risk?

Travel, Transport & Logistics May 2017



Authored by:

Dr. Thomas Netzer

Dr. Jan Krause

Dr. Ludwig Hausmann

Florian Bauer

Tim Ecker

Executive summary

Three years ago, McKinsey published a report on the future of the (parcel) logistics sector in which same-day delivery was considered “the next evolutionary step in parcel logistics.” Back then (i.e., in March 2014), a consumer survey indicated that latent demand for higher-convenience offers would give fast parcel delivery (i.e., within 1 to 12 hours) 15 percent of the market for B2C domestic parcel deliveries by 2020. The respective supply side at the time, however, was only (slowly) emerging and remained limited in scope and scale. Today, the early providers of this service have achieved greater market traction, but they weren’t alone for long.

A completely new set of competitors – on-demand urban delivery providers – has entered the B2C delivery market. These start-ups, including Deliveroo or Foodora in Europe and Postmates or DoorDash in the US, are delivering a new form of service: they integrate demand aggregation via their own mobile platforms and dedicated in-house operations that usually enable (almost) instant delivery. These innovations in the go-to-market approach and logistics model have attracted almost USD 5 billion in venture capital since 2014 in western markets alone (with leading players raising on average more than 90 percent of their total funding since) and are shaking up the urban shopping and delivery landscape.

Intrigued by this rapid evolution and the recent developments, we have completed a new course of research – including interviews with more than 40 industry experts from start-up founders to investors and their partners along the entire value chain, as well as test purchases – that has helped us develop the following perspective on the urban delivery market.

VC’s golden child ...

Although urban delivery start-ups are striking a chord with consumers, their rise is ultimately due to investors’ bets on a virtuous cycle. Namely, the success of the urban delivery market depends on scale at a level that is only possible with heavy up-front investment.

... is, essentially, a one-trick pony.

More than two-thirds of today’s urban delivery start-up action continues to play in one sole category: prepared food delivery. However, winners in this space are already emerging, and their dominance is clear. For the many runners-up, a new hunting ground is needed, yet hard to come by. Markets like groceries or nonfood retail do not offer the same rare combination of high gross margins and high urgency like hot food does. At average variable costs per delivery as high as USD 7 to 10, profitability will hence remain out of sight for these start-ups in the broader market – unless they reinvent themselves and address the limitations of their current instant delivery model. This entails moving from pure point-to-point delivery to more cost-efficient network-based consolidation (and with it, from instant to same-day delivery) and adopting “old school” models of product warehousing and employment. For most new entrants, however, a shift of this magnitude would exceed their capabilities and budgets, and trying to make it happen would set them up for failure.

The start-ups have unleashed a more than USD 200 billion same-day opportunity ...

Even as most start-ups struggle to adapt, their impact on urban consumers’ expectations will be lasting: shoppers have grown fond of having “the city at their fingertips” and the (digitally enabled) “bells and whistles” now introduced to the market. With such extra attention and scope for already proven service enhancements, the same-day formula in retail is about to finally come full circle. As same day stands to outgrow the instant delivery market by 10 to 1, it can unlock a more than USD 200 billion opportunity for retailers in Europe and North America over the next decade.

... that “old industry” players stand to conquer ...

As the broader market grows on the back of same-day rather than instant delivery, two traditional players have an opportunity to make their marks. On the retail side, brick-and-mortar stores (not even pure e-tailers) stand to recapture ground from fast-growing pure e-tailers. They alone have the dense network of physical stores to support same-day order fulfillment and delivery from “the city as a warehouse.” In logistics, incumbent parcel services, not start-ups, stand to gain at least 80 percent of the future same-day market. Only they have the critical capabilities today that retailers will seek, namely proven expertise in consolidated network operations, synergies with significant base volume, and the commercial capabilities and standing big-customer relationships to support such deals.

... if they go out and get busy.

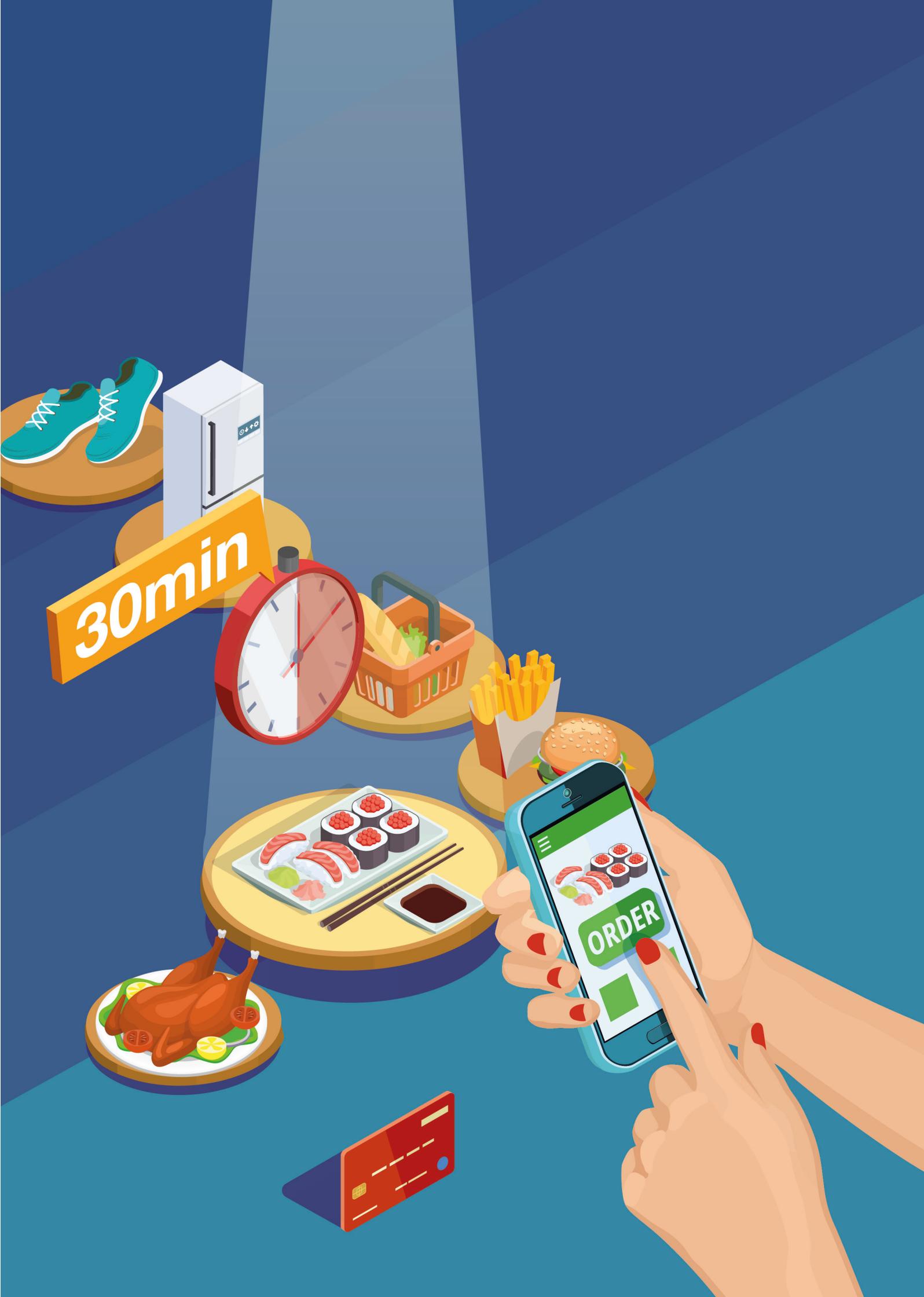
Brick-and-mortar retailers and parcel giants may have advantages that move them in the pole position to win in same day. However, they are not yet fully equipped to provide the supercharged, digitally enabled same-day experience that consumers want and first pioneers like Amazon or Zalando are keen to offer. This will require them to substantially enhance their operations (especially through digital enablement), effectively integrate stores in urban delivery networks, and courageously follow a “cannibalize your own business before your competitors take a bite out of it” mantra. If they succeed, they will tap into a new, dynamically growing value pool – and leave many once hopeful start-ups and VC investors watching from the sidelines.

Table of contents

1. Background:	6
Urban delivery's value proposition	
2. Calculated risk?	12
Why venture capitalists have gone "all in" with urban delivery start-ups	
3. The urban delivery dilemma:	16
The start-ups' winning formula puts the broader market out of reach	
4. "Rather later than sooner":	24
Urban delivery start-ups unlock a "same-day" opportunity ten times bigger than "instant"	
4.1 "Old school" players are positioned to dominate	
4.2 Inventory, operations, and other items for retailers' to-do lists	
4.3 Cannibalism (and other strategic plays for logistics providers)	

Background:

Urban delivery's value proposition



30min

ORDER

Background: Urban delivery's value proposition

Urban delivery is a novel form of on-demand service that connects consumers to the products they want and significantly shrinks the amount of time it takes from order to delivery. Almost exclusively launched in this decade and only having grown into national or international offers over the past two to three years, urban delivery start-ups in the market today are benefitting from a promising business model that has taken cities by storm.

The start-ups in the urban delivery space have their roots in tech – typically not in logistics or retail – and are usually founded by industry outsiders. They are clustered in today's technology start-up hubs, such as San Francisco, Silicon Valley, or Berlin, and are backed by venture capital investors.

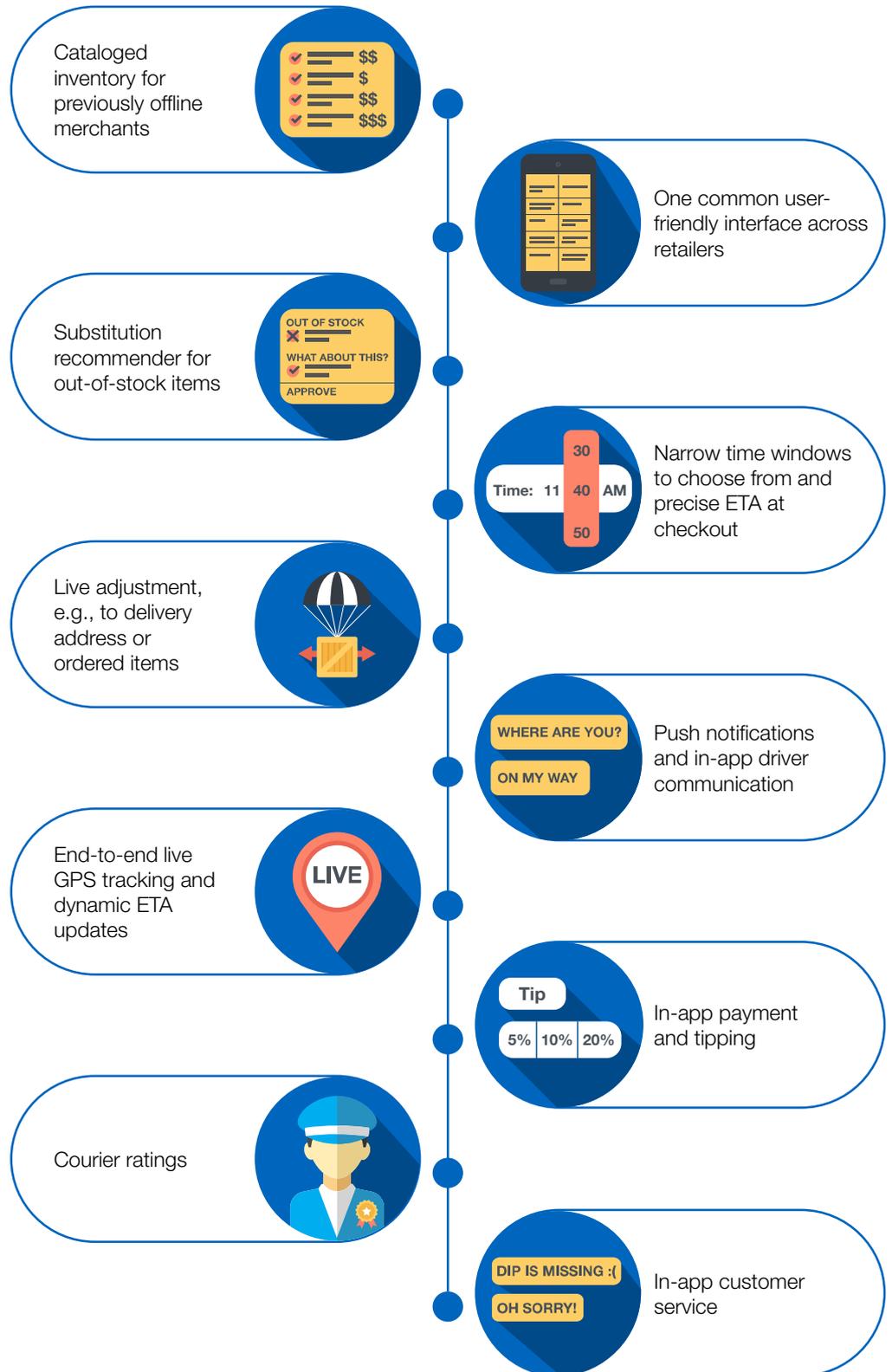
For consumers, urban delivery is all about the following proposition: superior value through a best-in-class combination of convenience and price. Compared to traditional CEP players, a step change in consumer convenience has resulted from several developments. Faster delivery times can be observed, as demonstrated by food delivery start-ups Foodora or Sprig promising an average delivery time of around 30 minutes or San Francisco-based grocery shopping service Instacart offering two-hour delivery until as late as midnight and on weekends. This enables new product categories (especially prepared food) and purchase occasions (e.g., last-minute gift buying or grocery shopping) that create urgency to move online.

There are also tech-enabled innovations that enhance consumer convenience (Exhibit 1). This is due to how offers are presented – services such as DoorDash or Instacart aggregate supply from various merchants in one consistent format – to making the actual delivery process transparent, with providers investing in dynamic predictive capabilities to provide an exact ETA alongside real-time tracking of the fulfillment process. At the same time, urban delivery services allow customers access to many merchants that previously did not offer delivery at relatively affordable rates. Many services have introduced flat-fee pricing of USD 5 or less (sometimes plus a service fee and discretionary tip) and some, such as Postmates, Munchery, and Instacart, have started offering subscriptions that provide consumers unlimited deliveries for a fixed monthly price, typically in the range of USD 10 to 15.

Postmates Plus Unlimited is a good illustration of how competitive such pricing can be. For USD 9.99, customers get as many free deliveries in a month as they like (at a minimum per-order value of USD 25) from a list of more than 3,000 restaurants and other merchant partners. Among these partners are fashion retailer American Apparel and cosmetics specialist Kiehl's. A visit to their regular online shops illustrates the price gap between the new offers and the "old world" of e-commerce: "traditional" same-day "express" delivery is offered online for around USD 20 per order in each case, twice as much as the fee for an entire month of Postmates deliveries.

Exhibit 1

10 “magical moments”: how new urban delivery services delight consumers



For merchants as the “suppliers” of goods for delivery, urban delivery services offer a huge leap in consumer reach. Small merchants gain the ability (often for the first time) to sell online via access to high-traffic, lead-generating platforms and a delivery fleet with no strings, such as extensive operational complexity/costs and scale issues. Restaurants, as today’s largest merchant segment for urban delivery, provide an ideal example. While they may find it difficult to reach consumers in a fragmented market, they have an extreme incentive to drive up traffic given their high fixed costs and steep gross-margin P&L structure. Urban delivery services can help them bridge this gap. As Niklas Östberg, CEO of Delivery Hero, explained in a recent interview with McKinsey Quarterly: “It’s a good model for restaurants. We channel more business to them and they increase their orders. And because the variable cost of food is pretty low, adding incremental customers is pretty lucrative. A restaurant that serves, e.g., 100 orders a day might not make a lot of profit, but if it boosts that to 110 orders a day, it would make good profits. Boost that to 200 orders a day and it will make loads of money.”¹

Leading urban delivery start-ups in the market today share a set of six common features that distinguish them and their offers from traditional courier, express, and parcel providers of B2C urban delivery services (Exhibit 2):

- **Value proposition.** They promise fast, often instant on-demand delivery and adjacent services with tech-enabled convenience, such as ETA updates based on up-to-the-minute information.
- **Geography.** Their target markets are urban areas that promise the density of supply and demand that fast delivery requires. In the US, for instance, the larger urban delivery start-ups operate in the country’s 15 to 20 largest metropolitan markets (i.e., at least 500,000 inhabitants and population densities of more than 3,000 people per square mile).
- **Physical assets.** They use the “city as a warehouse.” Their pickup points and delivery destinations are within the same city limits, and relying on the inventory of local shops rather than maintaining their own warehousing or distribution facilities makes them more like intracity, point-to-point couriers than parcel carriers who operate broader networks.
- **Product category.** They typically choose food delivery as a market entry point with prepared food (e.g., from restaurants) as their primary use case and grocery delivery as a secondary use case.
- **Consumer orientation.** They offer their services directly to consumers via dedicated mobile apps or Web sites that consumers can use to browse and buy from a broad selection of merchants. This role as a marketplace sets them apart from traditional logistics providers who operate largely in the background on behalf of merchants that retain full control of the customer journey.
- **Employment model.** They tend to seek flexible employment models for their courier workforce, including crowdsourcing of independent contractors. Operational efficiency for them comes less from the optimal execution of repetitive processes, like in traditional logistics, but from the smart, algorithm-based steering of their flexible resource pool.

¹ Cf.: “How a tech unicorn creates value,” McKinsey Quarterly, June 2016.

Calculated risk?

Why venture capitalists
have gone “all in” with urban
delivery start-ups



Calculated risk? Why venture capitalists have gone “all in” with urban delivery start-ups

In June 2014, David Sacks, a former executive at PayPal, Yammer, and Zenefits, referenced Uber when he tweeted a napkin sketch showing the reason in a nutshell for investor excitement about the wider on-demand economy. He called it “Uber’s virtuous cycle” and identified geographic density as “the new network effect.”²

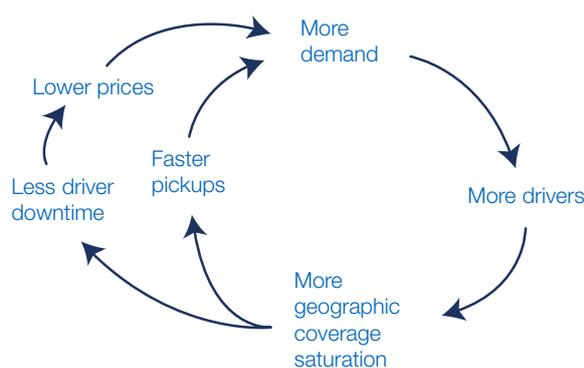
Following this logic, the real promise to investors is intrinsic to the business model. Not only is it quickly scalable due to its asset-light structures built on the crowdsourcing of existing resources and digitally enabled processes, but that scaling helps the market participants. It also – as is thus far the reasoning – leads to high degrees of market concentration and the emergence of a few very large companies over time. Analogies from other areas of the on-demand economy support the vision. For instance, Uber not only currently has a quarterly net revenue of close to USD 3 billion, but it also holds an estimated 85 percent market share in the US ride-sharing market, which has grown into a sizable alternative to the traditional taxi market.

In the urban delivery business, size also matters. Today’s urban delivery start-ups are three-sided platforms: they act as intermediaries between consumers, shops or restaurants, and an otherwise unorganized fleet of drivers. Consumers benefit from more shops and drivers joining the platform since they have more choices and faster service. In turn, consumers will use the platform increasingly more often, thus making the platform attractive for shops and drivers through the promise of high earnings opportunities, again leading to their accelerated entry. This is the “virtuous cycle” nurturing the hope of never-ending, rapid expansion of urban delivery that could eventually provide the basis for high long-term profitability or the financing of further growth to global scale (Exhibit 3).

Are these Uber-like dynamics then fully applicable to the urban delivery space? Some investors clearly think so. There are differences, however, having to do with the economics of the reference market (high-priced taxis versus low-priced parcel services enabled by scale or merchant subsidies) and how radical the change is from the reference service model (crowdsourcing and app-enabled experience versus an additional shift from network-based to point-to-point delivery and from a merchant- to intermediary-owned customer journey). These differences deserve further scrutiny.

Exhibit 3

VCs have faith in a “virtuous cycle” of merchants joining the platform, thus fueling greater customer demand and further attracting new merchants

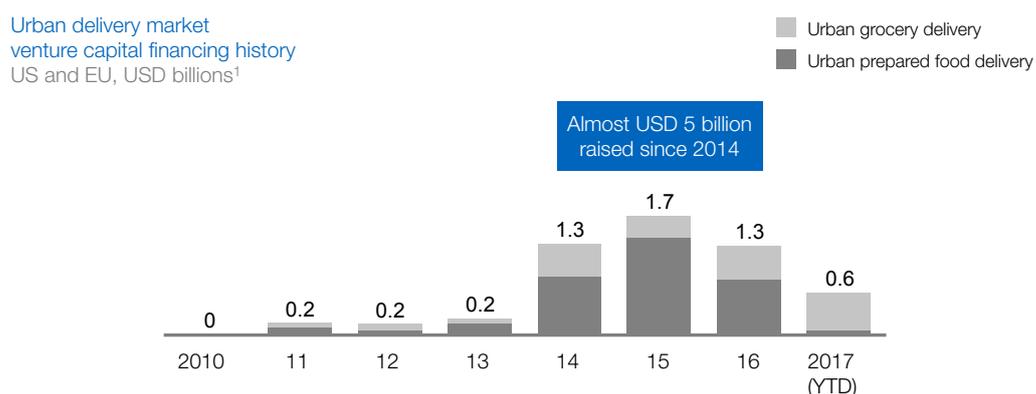


² David Sacks, “Uber’s virtuous cycle. Geographic density is the new network effect.”, June 6, 2014, 5:34 p.m. tweet (<https://twitter.com/DavidSacks/status/475073311383105536>).

Why is now the time to investigate these “new kids on the block?” A look at venture capital investment in the broader on-demand market for urban services illustrates the very recent yet strong momentum that brings them onto the scene. Venture capital investment in urban delivery services grew by more than 11 times in three years from ~ USD 150 million in 2013 to almost USD 1.7 billion in 2015, with the broader on-demand market fetching USD 7.5 billion in that same year.³ By now, numerous urban delivery start-ups in the Western Hemisphere, such as Instacart, Deliveroo, or Delivery Hero, have reached private market valuations close to or above USD 1 billion, putting them in the “unicorn league.” To access even larger sources of funding and allow early investors to exit, some companies (e.g., Grubhub and Just Eat) have successfully gone public. Others, such as the Dutch takeaway group Lieferando or Berlin-based Delivery Hero, could soon do the same, according to recent press coverage. In total, urban delivery start-ups in North America and Europe have attracted about USD 5 billion in venture capital financing (Exhibit 4).

Exhibit 4

VC funding for the urban delivery market has taken off in 2014 – leading delivery services have raised more than 90% of their funding since



Funds raised by leading urban delivery services
US and EU, USD millions

Company	Headquarters	Funds raised	
		Before 2014	Since 2014
Delivery Hero	Berlin	149	1,181
Instacart	San Francisco	11	664
Deliveroo	London	0	475
Foodpanda	Berlin	28	290
Postmates	San Francisco	7	273
DoorDash	San Francisco	2	185
Munchery	San Francisco	7	117
Takeaway.com	Amsterdam	13	105
GrubHub	Chicago		84
Sprig	San Francisco	2	55
Total for selected services		303	3,345

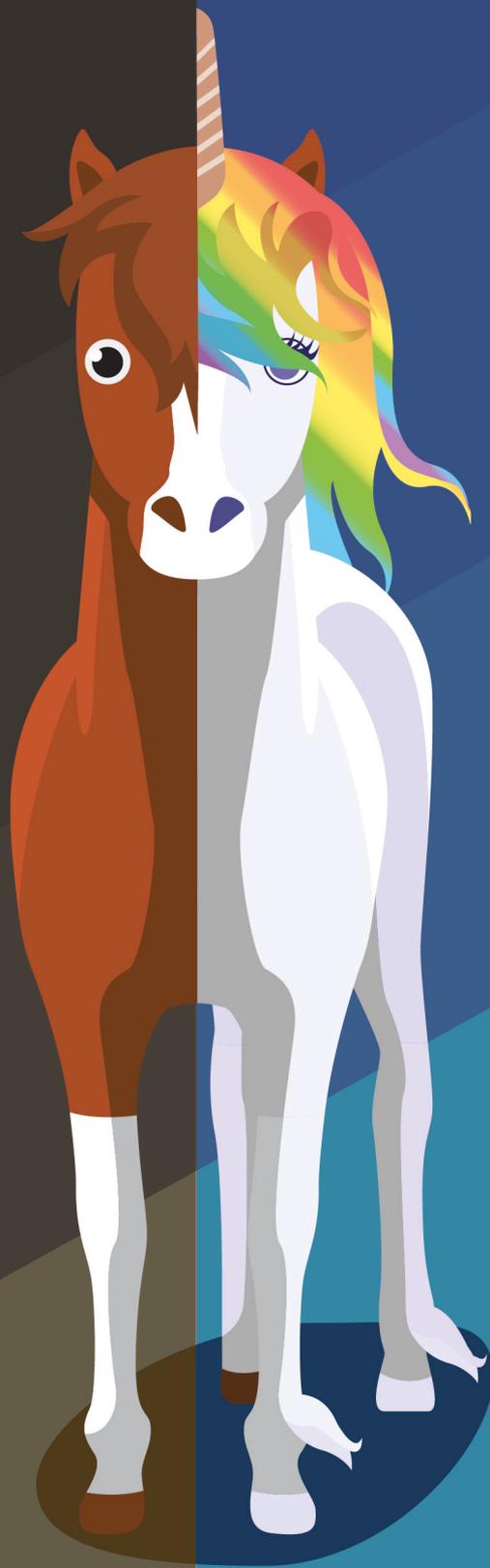
> 90% of funding raised since 2014

¹ Includes angel, seed, early- and late-stage VC investments
SOURCE: Pitchbook; Crunchbase

³ Without the disproportionately large Uber, Didi Chuxing, and Airbnb, all of which are “decacorns” with a current post-money valuation of more than USD 10 billion.

The urban delivery dilemma:

The start-ups' winning formula puts the broader market out of reach



The urban delivery dilemma: the start-ups' winning formula puts the broader market out of reach

While total (net) sales of urban delivery start-ups are still relatively small – we estimate the total US market to represent less than USD 2 billion in 2016 – the top-line trajectory of current industry success cases certainly looks impressive at first glance. According to recent press coverage, Postmates forecasted a year-on-year quadrupling of net revenue to more than USD 200 million in 2016. At a take rate of ~ 25 percent, this would correspond to processed gross merchandise value (GMV) of USD 800 million or more than 20 million fulfilled orders.⁴

At the same time, Postmates' figures reiterate the challenge to develop urban delivery into a sustainable business, as the bottom-line forecast remained negative. With the current promises of delivery within a few hours or even instant point-to-point delivery (as is the case with Postmates), current consumer prices are too low to offset the high variable costs of delivery and high opex for, among other things, IT development and customer/driver acquisition and retention. In our view, the vast majority of urban delivery start-ups is still years away from bottom-line profitability, a phenomenon that has led one of our interview partners to speak of “venture-capital-funded meals.” With widespread consensus that the access to venture capital funding is becoming tougher to get and more contingent on strictly financial metrics, numerous start-ups told us about their efforts to enhance their business economics.

It will likely remain difficult to charge consumers the actual cost of urban delivery. A survey conducted by McKinsey on consumers' relative preferences for different delivery options backs this viewpoint. While more than half of the 4,700 consumers surveyed across the US, Germany, and China declared they were willing to pay some surcharge for same-day delivery, only ~ 15 percent said they would bear a surcharge of ~ EUR 3, and only 2 percent would be willing to pay significantly more than that for instant delivery.⁵ On the cost side, however, a promise of quasi-instant delivery leaves almost no room for consolidation. While traditional parcel carriers achieve productivity as high as 15 to 20 parcels per hour during delivery runs, an urban courier can typically log no more than two or three point-to-point deliveries per hour. Both pay schemes – per transaction and by the hour – typically result in unit costs for delivery of ~ USD 7 to 10, plus any overhead costs – a dramatic increase versus regular parcel delivery and higher than the consumer fee for delivery charged by urban delivery companies such as DoorDash or Foodora today.

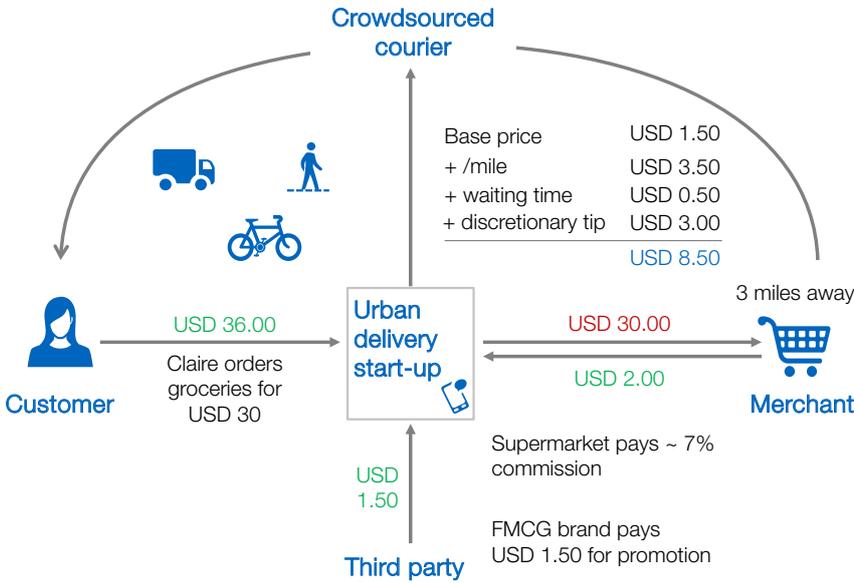
Clearly, other sources of revenue are needed in order to make largely unconsolidated delivery work. Various forms of merchant monetization exist in the market today, such as sales commissions and direct payment for part of the delivery fee. Postmates, for instance, charges its restaurant partners ~ 10 to 30 percent on the transactions generated through its platform. Instacart, which must deal with the (on average) much slimmer margins of supermarkets, has started monetizing virtual POS promotions with CPG partners such as Red Bull. In a scenario in which we assume low consumer charges of just USD 3 (in line with what the typical consumer is willing to pay), urban delivery start-ups indeed need to charge multiple parties if they are to achieve positive margins (Exhibit 5).

⁴ For comparison: the total US courier market (including B2B shipping) has an expected size of ~ USD 9.6 billion in 2016. Competition is heavily fragmented among ~ 7,000 companies and large players are estimated to have revenues of ~ USD 200 to 500 million.

⁵ For details, refer to the McKinsey brochure “Parcel delivery – The future of last mile”, published in September 2016.

Exhibit 5

In a scenario with low delivery prices, urban delivery start-ups need to charge merchants or even third parties to achieve positive margins



Customer pays USD		Urban delivery startup collects	
One grocery bag for family dinner	30.00	① Delivery fee	3.00
① + delivery fee	3.00	② + discretionary tipping	3.00
② + discretionary tipping ~ 10%	3.00	③ + merchant commission	2.00
		④ + third party promotion	1.50
	36.00		9.50
		/ crowdsourced courier	(8.50)
		Urban delivery start-up earns	1.00

SOURCE: Expert interviews; McKinsey

We have seen evidence that urban delivery start-ups can achieve positive gross margins with such a multisided revenue model, at least in relatively well-penetrated cities. Merchants' and other parties' willingness to subsidize delivery like this, however, will depend on the perceived consumer interest in fast delivery, purchase basket size, and typical gross margins.

As a consequence, we expect the market for instant or quasi-instant delivery to remain by and large constrained to:

- Categories with a high affinity for fast delivery, in which prepared food is the most natural fit and preferred entry point for most urban delivery start-ups. Our recent research identified groceries – the second big battlefield today – and medicines as further categories whose current long delivery times have previously kept consumers from purchasing online.

- Product segments with a high price point or high margins, such as premium consumer electronics. For such products, our research identified an above-average willingness to pay for fast delivery. For instance, Apple has been one of the first nonfood retailers to partner with Postmates, offering urban consumers instant delivery. At an introductory flat fee of USD 19, Apple’s “courier service” for Manhattan-based customers certainly does not come cheap, but looks much more digestible when seen as a 2 percent fee on an iPhone – and could be deemed acceptable by consumers or convince merchants to bear the cost as a necessary sales driver in the future.
- Unusually urgent occasions for which consumers would opt to pay for very fast shipment, such as for last-minute cooking supplies when the guests have already arrived or last-minute gifts in the run-up to Christmas.

In the urban delivery start-ups’ pursuit of further growth, unit economics are not the only thing they need to get right. In addressing the mass market of consumers more broadly and more often, new urban delivery services will need to get large retailers to adopt such solutions. Today’s start-ups not only exhibit a focus on the prepared food and grocery markets, but they generally also hone in on the long tail of smaller merchants. And it makes sense: for small, less-known restaurants or shops, broader customer access and delivery proved to be unresolved challenges. In this context, supply aggregation is a marketing play worth paying for – even if the commission rate for food delivery could easily account for 20 to 30 percent of the bill.

Large retailers, on the other hand, have only been “tiptoeing” into the urban delivery opportunity with very selective pilot testing. In our interviews with several globally leading retailers, we learned about their reservations vis-à-vis the current start-up offers. A value proposition centered on additional demand generation for them sounds less compelling, since they typically want to retain control of the customer journey. They have existing customer traffic and their own ways of stimulating it (e.g., via new store openings) and their own marketing or promotions as well as a wide set of points of sale, including an online channel with established delivery solutions. The question of subsidized urban delivery becomes one of cannibalization: without the new delivery offer, would the customer really have gone elsewhere? Or would she have come to my store on another day for a more controlled experience without commissions and shipping expenses, and perhaps even opted for an additional impulse purchase? In nonfood retail, finding compelling arguments for such large merchants becomes the make-or-break reasons for entering the mass market. After all, the online retail space is relatively consolidated. In the US, for instance, the 30 largest retailers generated ~ USD 150 billion in Web sales in 2014 – close to half of economywide Web sales and as much as the next-biggest 970 retailers combined.

Besides these general reservations, three primary concerns with the current start-up solutions emerged as recurring themes in our talks with large retailers:

- **Dealing with fragmentation.** Retailers are looking for reliable partners at scale in a market that is still fragmented. Most start-ups are present in only a few metropolitan areas – sometimes with limited density, especially in the suburbs and far from nationwide coverage. And even leading players in the US, such as Instacart for groceries or Deliv for nonfood deliveries, currently cover only 60 percent or less of the top 25 metropolitan areas in the country.

- **Giving up ownership of the customer relationship.** Noting the many existing customer touch points referenced previously, retailers are reluctant to completely give up control of one sales channel or pay for lead generation. And even milder forms of co-branding are something that can make large retailers wary. One pure-delivery start-up told us that its large merchant partners often insisted on a white-label solution with, for instance, live-tracking features rebranded in the merchant design.
- **Assuming quality risks.** Concerns over the quality of such unproven services – from order to delivery experience – add to retailers’ skepticism and make the aforementioned issues of limited control and fragmented base of potential partners even worse.

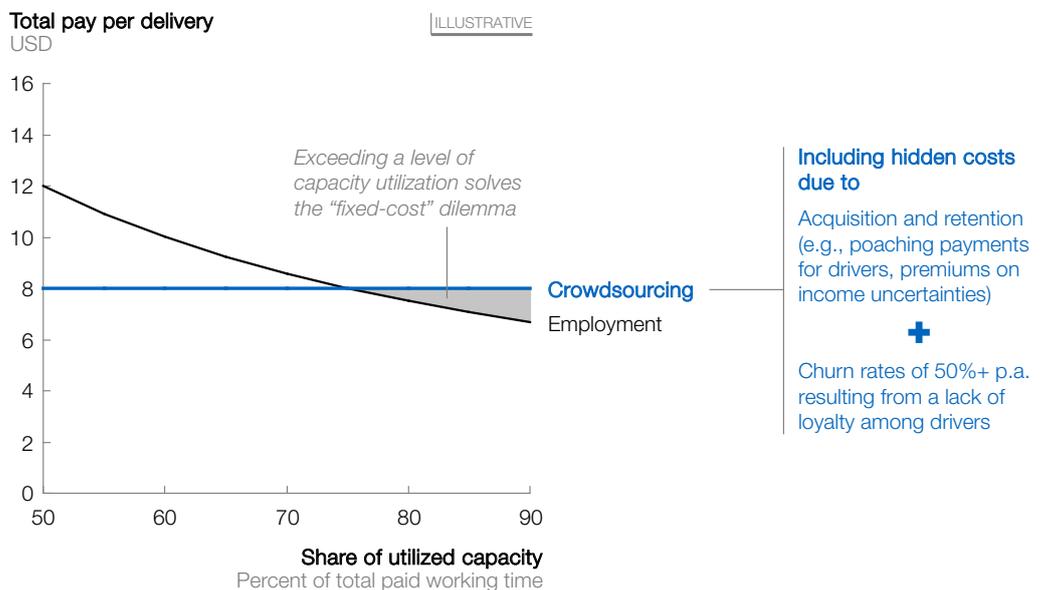
Start-ups have commenced with addressing these pain points, not only through rapid expansion to increase their market coverage, but also with API solutions that allow merchants to include a dedicated urban on-demand delivery as an option on their Web shops. This allows them to effectively retain ownership of the transaction. Such white-label solutions may be exactly what it takes to get large retailers excited but will also dilute the pitch toward smaller merchants that look for a high-traffic marketplace and investors who seek network-driven market power.

What about the perceived quality risk? Here, the crowdsourcing element of the typical on-demand operating model deserves further scrutiny, even more so because the “hidden costs” of high driver turnover call its financial superiority into question, at least at scale (Exhibit 6). Two phenomena, in particular, work together to make traditional employment potentially more viable than crowdsourcing. First, a high level of turnover unique to crowdsourcing adds the ongoing hidden costs of continuous courier acquisition to the model. Second, at high capacity utilization, fixed employment models allow the logistics provider to pocket the scale benefit, while per-delivery schemes will immediately call for a benefit sharing with drivers. In an all-in consideration at scale, driver cost per delivery for fixed employees can match or even undercut the per-delivery cost of crowdsourced drivers.

Exhibit 6

Identifying hidden costs – “all things considered,” crowdsourcing can turn out more expensive than fixed employment of drivers

Example: urban delivery start-ups



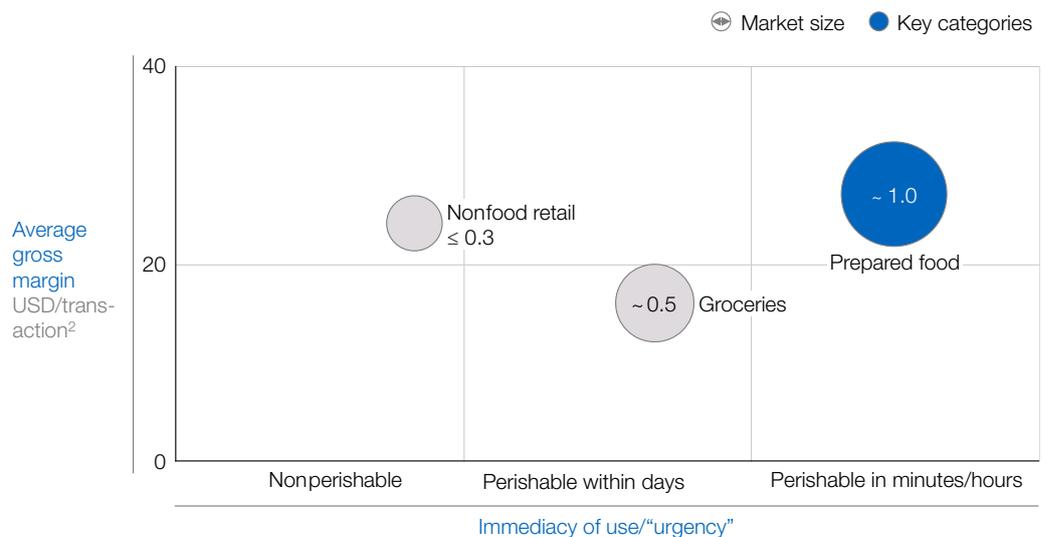
SOURCE: Expert interviews; McKinsey

All in all, we see hot-food delivery as the biggest chunk of the on-demand market for urban consumers, both today and in the future (Exhibit 7). It is the one category in which high gross margins and urgency present a natural fit for on demand at scale, and urban delivery start-ups do not look poised to break that decades-long rule.

Exhibit 7

Prepared food is the main category that urban delivery start-ups play in – high gross margins and urgency present a natural fit for on demand

Estimated net sales of US urban delivery start-ups (commission and delivery charges¹)
USD billions, 2016



¹ Not including adjacent "marketplace" business models that offer lead generation without delivery
² Based on typical gross margins and order basket sizes per product category (prepared food: 60% on USD 45 order, nonfood retail: 30% on USD 80 order, groceries: 20% on USD 80 order)
 SOURCE: Expert interviews; McKinsey

For a broader target market, however, the business model fundamentals of urban delivery start-ups – rapid point-to-point delivery, direct consumer access, and crowdsourced operations – are not here to stay. Unless any of the current start-up heroes can find a new secret sauce, they are bound to remain constrained to niche applications and come up short of the promised mass-market revolution.

“Rather later than sooner”:

Urban Delivery start-ups unlock a “same-day” opportunity ten times bigger than “instant”



**DELIVERY
ADDRESS**

**WAREHOUSE
8 MIN**

**WAREHOUSE
5 MIN**

**WAREHOUSE
3 MIN**

“Rather later than sooner”:

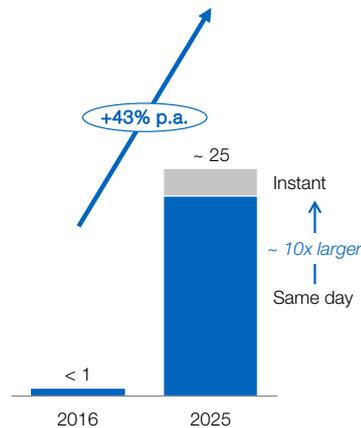
Urban Delivery start-ups unlock a “same-day” opportunity ten times bigger than “instant”

If unconsolidated delivery outside of a few categories, price segments, and occasions cannot profitably reach the mass market, then how can start-ups and other participants in the urban delivery market address the broader high-convenience opportunity? We believe that the answer lies in same-day delivery, a market we expect to be 10 to 20 times larger than that of instant delivery by 2025 (Exhibit 8). Put differently, at 20 percent of the total e-commerce market, it stands to represent a more than USD 200 billion opportunity for retailers in western markets alone, with logistics providers groomed to capture some of that value.⁶

Exhibit 8

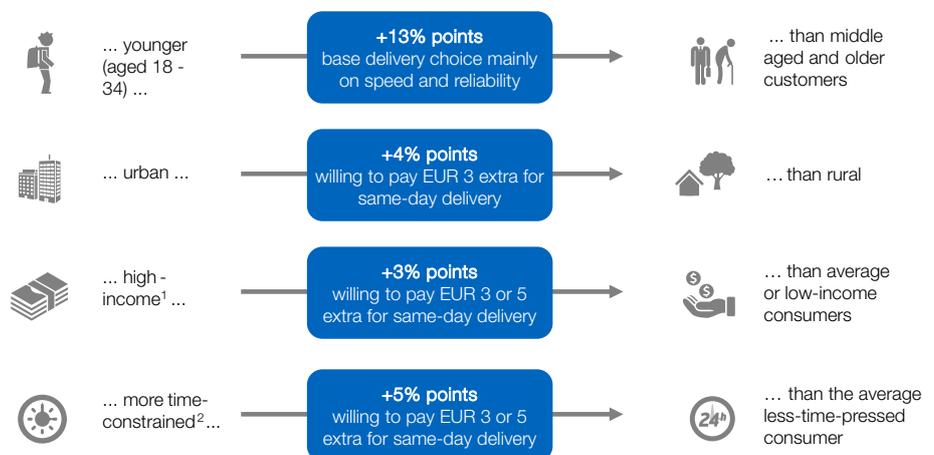
In 2025, fast delivery options – mostly same day – will make up ~ 25% of B2C deliveries ...

B2C customer demand for instant and same-day delivery, market share in percent



... with younger, urban consumers among the main adopter groups

Adopters of fast-delivery options are more likely to be ...



1 > USD 100,000, EUR 100,000, RMB 1.5m p.a.
2 I.e. typically not home the whole day on weekends

SOURCE: McKinsey customer survey “The future of last mile”, conducted in 2016 in the US, Germany, and China; n = 4,700

6 A recent Euromonitor estimate predicts the total Internet retailing market in the US and Western Europe to reach close to USD 900 billion already by 2020.

Other than for the delivery of hot food, on-demand delivery services are already in the same-day game. Instacart, e.g., gives consumers the choice between various one-hour time windows later in the day and a “within two hours” option, besides “instant” delivery within 60 minutes. With more lead time comes more potential to increase efficiency in the logistics back end and drive down costs.

As a former Instacart executive told us, the company sought to pool at least two or three orders into one delivery run. Lawrence Hene, Director of Marketing at UK-based e-grocery pioneer Ocado, confirmed in a recent press interview that the high costs of instant delivery were a deal breaker for many grocery shoppers. He stated, “I think there’s a limit to it. Grocery shopping is usually planned, and needing to eat doesn’t normally take you by surprise. And the premium delivery fees attached to these services can be a deterrent. The reason all the retailers offer cheap slots today – e.g., we have free delivery Wednesday – is that customers have shown resistance to delivery charges. Our model works because we take so much cost out of the overall process, we can afford to subsidize the delivery.”⁷

So what is the common ground between the truly instant and the “fast same-day” services? Despite their reduced speed, the latter services keep their foot on the gas when it comes to overall service convenience. Features such as last-minute order modification, dynamic ETA, live GPS tracking, and driver profiles and feedback forms give consumers end-to-end transparency on the process that unfolds from the moment they place an order to when the courier rings their doorbell. This major step-up in delivery experience is the short-term impact that the delivery start-ups have on urban consumer expectations and the broader delivery and retail ecosystem Incumbent opportunity:

“Customers care about free, flexible, and fast, in that order. We believe that high-convenience offers like curbside pickup or narrow time windows can strike the right balance – instant demand for a lipstick, on the other hand, is rare.”

– E-commerce executive, multinational cosmetics retailer

“Do I really care whether I get my T-shirt delivered instantly? I don’t see a lot of other categories being as relevant as prepared food for on-demand delivery.”

– Former business development executive, leading urban delivery start-up

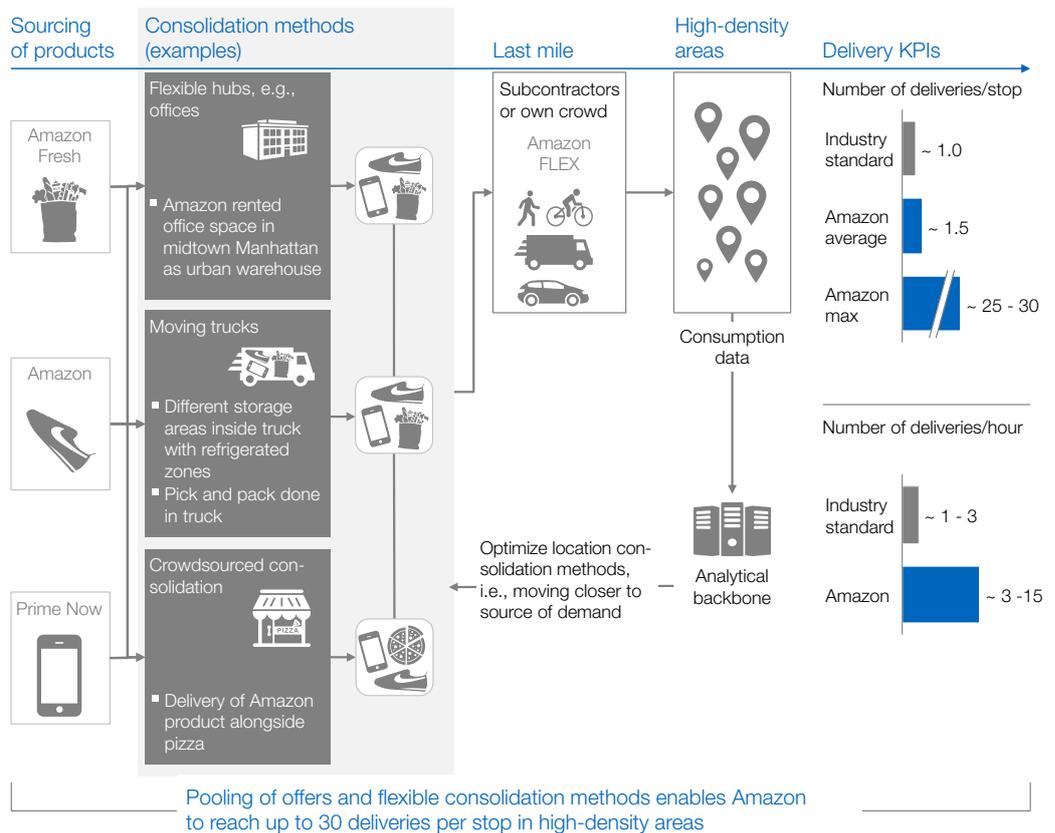
⁷ Cf: William Reed Business Media, “Lawrence Hene of Ocado: the big interview,” October 1, 2016.

4.1 “Old school” players are positioned to dominate

Start-ups are already ceding territory to big corporations in the urban delivery space. Amazon, in particular, is forging ahead and has boldly moved in with Amazon Prime, its subscription-based premium shipping service. According to industry experts and insiders, Prime Now achieves significantly higher productivity than other urban delivery industry players, with an average 1.5 deliveries per stop (versus close to one for other players) and up to 15 deliveries per hour (versus two to three for others) (Exhibit 9). Since the introduction of Prime, Amazon has pushed the expected speed of free delivery in the US from more than a week to two to three days. With Prime Now, Amazon may drive consumer expectations even higher with its offer for free delivery within two hours, guaranteed (Exhibit 10).

Exhibit 9

Amazon currently beats alternative urban delivery services on consolidation capability and redefines the industry standard



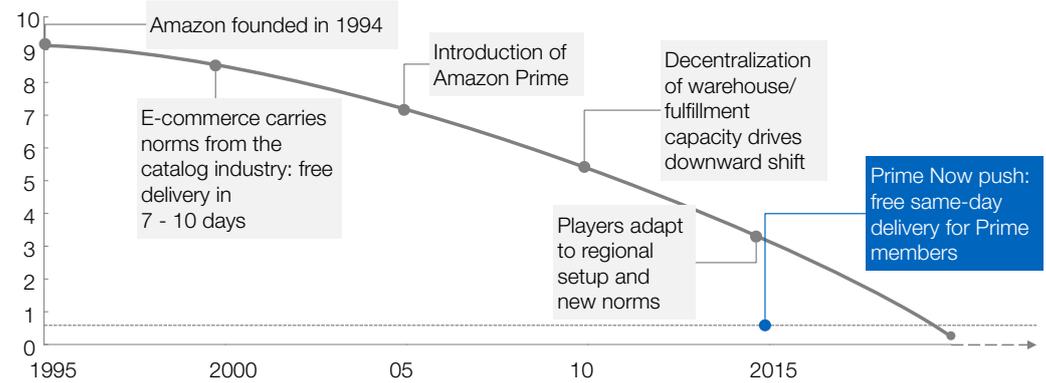
SOURCE: Expert interviews; McKinsey

Exhibit 10

Amazon has time and again shifted consumer expectations towards faster, cheaper delivery – Amazon Prime Now represents the latest push

Free delivery expectations

Delivery time, days



SOURCE: McKinsey

Digital native, hybrid players like Amazon, however, are not the only established players in a position to make waves in the urban delivery space. In fact, established brick-and-mortar retailers and incumbent parcel delivery services have what it takes to dominate this growing market. Their industry know-how and existing physical assets can be key advantages in bringing the value of urban delivery to the mass market in urban areas.

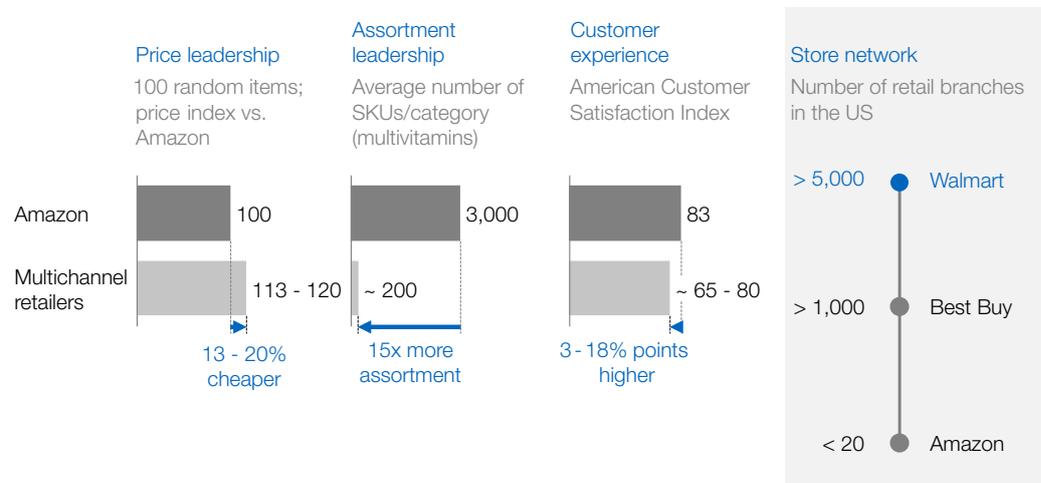
Big retailers who already possess urban store operations as either pure-play brick-and-mortar or multichannel retailers, look much better positioned to leverage such high-convenience delivery capabilities as a differentiating factor. Some offline retailers such as Tesco, who went online as early as 1996, have managed to win customers from their core competitors by being the first mover, with 28 percent of Sainsbury's and 31 percent of ASDA's regular customers shopping online at Tesco, according to a McKinsey study.⁸ Others have learned – sometimes the hard way – that “you can run, but you can't hide” from rising e-commerce penetration. Approximately 10 to 12 percent of all retail sales in the US and Western Europe are online already, with double-digit annual growth continuing the online migration that has often seen brick-and-mortar retailers watching helplessly from the sidelines. For a change, they may find themselves in the pole position: according to McKinsey research, the number-one deterrent to online shopping today is long delivery times, an impediment that multichannel retailers could remove to regain momentum from low-priced, online-only competitors that are unable to offer such convenience. They could gain a real edge, at least in selected product categories (e.g., groceries and, to a lesser extent, drugstores, fashion, and beauty) or purchase occasions (e.g., Christmas gifts) with sufficient urgency. A comparison of numbers illustrates how big of an asset an existing store footprint could be in the race towards fast delivery: while Amazon, the most densely

⁸ McKinsey article “Lebensmittel aus dem Netz,” Akzente 2/2016, published in German.

organized e-tailer, currently operates 108 fulfillment, redistribution, and regional sortation centers, as well as ~ 40 Prime Now hubs in the US, electronics retailer Best Buy operates more than 1,000 stores across the country, and Walmart even more than 5,000. These stores could not only fulfill online orders, but also serve to support multichannel customer decision journeys (e.g., try offline, purchase online) and handle subsequent returns (Exhibit 11).

Exhibit 11

Multichannel retailers have faced a “triple threat” value proposition from Amazon for years – their dense store network, however, is a competitive edge



SOURCE: William Blair pricing report, 2012; Wells Fargo, 2011; American Customer Satisfaction Index (ACSI), 2016; press research, 2016

At the same time, with e-commerce accounting for only 11 and 3 percent of company sales, respectively, Best Buy and Walmart are still in the middle of a transformation into multichannel retailers. But making progress on that transition promises real economic benefits: not only can a multichannel offer help win back business from e-commerce players, but our research shows that multichannel customers have 1.2 to 4.0 times the average order sizes of single-channel customers, leading to higher customer lifetime value.

Incumbent parcel delivery providers are the natural partners for these established retailers to finally tackle the same-day opportunity heads-on. They have already proven their capabilities for same-day delivery – the big question now is: how does a parcel delivery provider enable an urban delivery model at scale built for local retail? One could be misled into thinking that logistics incumbents already have in place what it takes: after all, most big carriers have already started offering some form of same-day service, at least in larger cities. In Germany, for instance, DHL already offers same-day delivery with time windows in 14 cities or metropolitan areas. However, these offers today are still experimental and not yet established products and suffer from a lack of synergies with existing networks, no IT integration, low volumes, and, as a result, often low or no profitability.

On top of these shortcomings, the existing offers fail to match some of the fundamental strengths of urban delivery services like Amazon's Prime Now: They:

- make no or limited use of the convenience enhancements seen with urban delivery start-ups, such as real-time tracking, driver communication, rating functions, or innovative flat-fee pricing
- lack part of the supporting backbone, in particular tech-enabled flexible supply steering or live driver routing
- are, most importantly, not primarily built for intracity delivery and, typically do not have processes in place for standardized enroute pickups from stores.

It would be difficult and risky for the incumbents – both couriers and parcel carriers – to adopt new operations principles (e.g., crowdsourcing, agile IT development, or the direct-to-consumer approach with the marketing firepower to support it) without alienating their existing customers, forfeiting parts of their asset base, or investing heavily in a transformation of their business. One could conclude that the incumbent parcel delivery providers are cautiously testing and learning and that they are wise in being “low-touch” in their approach to making a foray into the start-up progression. What is missing, however, is the augmentation of those start-up solutions with the parcel delivery providers’ own capabilities and resources.

4.2 Inventory, operations, and other items for retailers’ to-do lists

As mentioned earlier, a look at the current landscape shows that even retailers for whom a Prime Now-like service might be a strong fit are only starting to test the waters. To do so, they are using small-scale pilots, sometimes with several partners in parallel: Walmart, for instance, has set up delivery test runs with Uber, Lyft, and Deliv, all of which are limited to a few cities. To get ready for a large-scale rollout of a service model that can shape the urban delivery experience for a wider audience, however, retailers will need to work on three internal key challenges:

- **Address the strategic uncertainties.** Retailers today are testing dedicated urban delivery to their customers’ doorsteps, but they are also experimenting with a plethora of other fulfillment formats, like click and collect, curbside pickup, or parcel lockers. Category footprint, customer profile, unit economics, operational resources, and willingness to invest in their adjustment are the elements of urban delivery that make it a complex proposition for retailers. These are also the factors that will determine whether urban delivery makes sense for a specific retailer, whether alone or alongside other formats. The lack of strategic clarity is, in a way, characteristic of the “urban delivery revolution” being in its early stages. But retailers should do the analytical groundwork now to narrow down their option set and build the basic capabilities that will enable any fulfill-from-store model as soon as they have come to appreciate the physical asset as an integral and advantageous part of their future multichannel strategy.
- **Reinvent inventory management.** To enable reliable and efficient urban delivery, retailers need to establish integrated real-time visibility of their inventory both in store and across the supply chain (e.g., to see inventory in transit). The lack of such an accurate baseline is a key impediment for innovations today, as we heard repeatedly in our talks with large retailers. Only with accurate, real-time inventory information can retailers fulfill orders

from stores based on smart allocation algorithms that consider availability and ensure full-basket bundling and sufficient in-store reserve inventory. Full inventory visibility – and the capacity to reflect this information in online store shipping options, pass the information on to their delivery partners, and trigger replenishment as needed – is also a prerequisite to optimizing delivery speed/performance and margins (e.g., minimization of markdowns and delivery costs).

- **Transform store operations.** Possibly the biggest obstacle for a consistent urban delivery model will be the required change in store design and operations. Retail stores in high-rent locations have been designed to maximize sales density and, accordingly, reduce inventory and investment in the back office to the affordable bare minimum. A fast-delivery promise in narrow time windows would lead to several pickups per day and require dedicated areas and staff for order monitoring, picking, packing, and commissioning. Against the existing frontline, the new staff would not only require different capabilities, but also a new set of incentives. And so would store managers and other existing staff, who should not be forced into trade-offs between profit maximization for the overall company and sales target achievement on the individual store or employee level.

It is important to realize that for the early target groups of urban delivery start-ups – restaurants and grocery players – these hurdles have been much less prevalent. Restaurants had no strategic uncertainties and no complex inventory challenges to face. Pickup and delivery services did not pose a major challenge to their operations, as they either had an existing delivery model to build on, or at least a broad set of easily observable orientation points in a mature market. Supermarkets, on the other hand, may still have faced the plethora of strategic options and the question of how to prepare the store for online order picking and dispatching. But at least they could count on best-in-class systems built for speed to manage perishable inventory. There is no secret sauce yet for the wider retail market, and players will have to be inventive but also quick on their feet to manage a trial-and-error evolution towards a working model.

4.3 Cannibalism (and other strategic plays for logistics providers)

As retailers are scrambling to define their strategy for urban delivery and get the operational requirements in place, traditional parcel delivery providers are facing a dilemma: should they wait for retailers to act – even at the risk of coming to market late – or should they start investing in new urban delivery capabilities now in the hope of being a first mover?

How can logistics incumbents close that capacity gap? To date, they have used start-up acquisitions as a market entry point. For instance, in February 2016, UPS invested USD 28 million to acquire a minority stake in Deliv, a Menlo Park, CA-based delivery start-up that has won partners, including Macy's and several larger mall operators, with the explicit goal to "better understand the marketplace." A few months earlier, German parcel provider Hermes bought a stake in urban delivery service Liefery as an entry point to same-day delivery, citing the rapid market evolution as a reason for the timing of the move.⁹

But they now need to tap into their own capabilities to build a winning combination. A winning combination could enhance the current start-up solutions, especially for big retailers' needs,

⁹ Cf. "Hermes und Liefery: Vom Nischen- zum Massenmarkt ist es oft nur ein kleiner Schritt," Hermes Website, 14 July 2015.

e.g., with capabilities in consolidation and staging, a network of physical infrastructure, or the ability to offer an integrated range of countrywide delivery options. Against this backdrop, we believe there are three strategic moves through which incumbents can leverage their strength in last-mile delivery and successfully build a new urban delivery concept based on their same-day offers:

1. “Enhance connectivity” – accelerate usage of technology innovations as a front-end addition to the operations backbone

The first strategic move is in technology. Logistics incumbents will need to find a way to ingrain technology innovations and enablement in their culture. Many of the large incumbents are held back by a lack of know-how in rapid and agile development, a major foundation for fast innovation in today’s consumer-centric world. The IT challenge is often compounded by overly-hierarchical organizational setups and challenging security requirements. This complexity hinders even forward-looking IT units’ push for faster deployment cycles. As challenging as these issues are, there are clear ways to drastically improve:

- Consider buying new consumer-centric capabilities (e.g., Web front end for driver interaction) rather than developing them in house. A lot of the well-known features that Uber and other apps introduced to the market are now standard and therefore can be bought, including the benefits of regular updates.
- Invest in capabilities that constitute differentiating assets (e.g., algorithmic optimization for increasing driver utilization), especially those where early movers have the potential to build a lasting advantage based on big data and experience.
- Leverage resources and assets to leapfrog with a large forthcoming innovation – such as autonomous vehicles – that will massively shift the delivery landscape. The near future will bring massive innovation in last-mile delivery, ranging from drones and robots to autonomous vehicles, that has the potential to be a huge game changer for the player that can be the first to build up such a network.¹⁰
- Adjust organizational setup for technical innovations (e.g., opening a modern facility for designers, developers, and data analysts in a start-up hub away from your HQ). At the same time, they need to build the right IT foundations – e.g., developing a two-speed architecture to pair a safe and slower-paced architecture layer for the core transactional backbone with a faster and more flexible innovation layer – to enable the above-mentioned business innovations.¹¹

2. “Innovate logistics” – integrate novel solutions into established operations

The second strategic move concerns incumbents’ core logistics processes and the potential to increase their share of the local delivery value chain. The setup of innovative urban delivery formats will require incumbents to provide the right network footprint and define a target balance between the desired service levels offered to consumers and the ability to realize synergies. In any case, this requires incumbents to make several adjustments to their intra-city operations.

¹⁰ Cf. Jürgen Schröder and Florian Neuhaus: “Parcel delivery – The future of last mile,” McKinsey, September 2016.

¹¹ For further details about the two-speed architecture framework, see Oliver Bossert et al.: “A two-speed IT architecture for the digital enterprise,” McKinsey, December 2014.

Initially, existing driver routes will need to be integrated with the new urban delivery formats. This means that, depending on the load and drop factor, a driver could add more parcels and stops to his or her route through new loads at a consolidation hub. But to really push innovation forward, we see that more significant changes are needed. First, logistics operations will need to be more systematically integrated with urban stores to ensure smooth, standardized pickup processes. For instance, for the closest retail branch that offers full-basket availability or the optimal pickup time and location need to be quickly identifiable, since they are processes that demand strong integration with retailers' own processes. Second, investment in downtown consolidation hubs and their integration into the regular routing of the network will be necessary to meet the speed requirements and maintain synergies with existing operations on last-mile delivery.

Looking ahead, logistics incumbents could address the issues of integration and consolidation described above by establishing city center warehouses for the top, fastest-moving items of some of their largest customers. This would allow for a highly convenient, same-day offer while leveraging economies of scale and building and strengthening their positioning in the overall local delivery value chain (while at the same time avoiding in-store pickups that are still seen as disruptive and challenging for the retailer's store operations).

3. "Shift the baseload" – cannibalize your own business before your competitors take a bite out of it

The third strategic move relates to incumbents' often conservative mindset regarding long-term opportunity vis-à-vis short-term risk in the local delivery space. Many of the discussed innovations do not promise immediate financial payoffs, and some of the offers even pose a risk of cannibalization of incumbents' more profitable existing volumes (e.g., enabling an increase in retailers' share of local delivery volumes by cannibalizing profitable coast-to-coast shipments).

Nevertheless, incumbents should consider these investments as a strategic bet for a future where the last-mile share of value creation is expected to further increase. And they should fully appreciate the synergies that such innovations could yield for the core business right now. New convenience features could also enhance the delivery experience within the standard network; even for rural destinations, tech-enabled driver performance and capacity management could help deal with peak-season capacity ramp-up, and a more localized network could support the wider trend towards localized injection.

We have strong reason to believe that a proactive, long-term approach that gets incumbents into the game sooner rather than later is the best defense. We also believe it will enable incumbents to build a same-day, local-delivery offer that will meet the increasing expectations of consumers while over time allowing positive unit economics for the logistics provider.

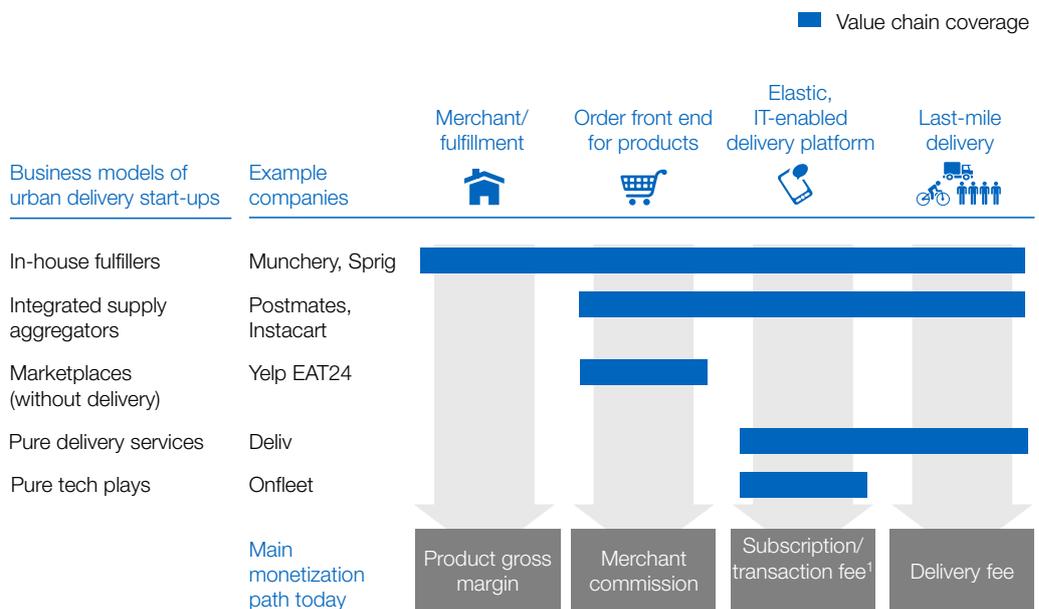
Appendix A

Business-model archetypes of urban delivery start-ups

Despite the shared characteristics and high amounts of funding among its players, the start-up space for urban delivery is currently comprised of a variety of business models. A first striking difference among today's market players is that they have decided to cover different parts of the value chain, with different resulting monetization paths. In this context, five business model archetypes can be distinguished (Exhibit 12).

Exhibit 12

Today's urban delivery start-ups are employing different strategies in terms of value chain coverage and monetization path



¹ In case of pure tech plays
SOURCE: McKinsey

In-house fulfillers

Examples include Munchery and Sprig, offering an end-to-end solution in which they not only operate a consumer-facing order front end (mobile app and Web site), dedicated last-mile delivery fleet, and the underlying IT-enabled platform required for order fulfillment, but they also run their own warehouse and production facilities. In Munchery's case, production includes kitchen facilities located in city centers where professional chefs produce ready-made meals and dinner kits in large quantities. These players can earn a product gross margin as their main source of revenue.

Integrated supply aggregators

Postmates, Instacart or Foodora, for instance, do not have their own products or stock, but rather aggregate the offers of various merchants on one consumer-facing platform and connect them to one common delivery experience. In addition to delivery fees, these market participants typically charge the merchants they work with a percentage commission on each sale made through the platform.

Marketplaces

Grubhub, JustEat, or Yelp EAT24 were early participants in the urban delivery market that offered a leaner proposition. They simply connected consumers with merchants – often restaurants – through a common platform, while the actual delivery was decentrally managed by the merchants. This business tended to be purely commission and advertising based. More

recently, however, various similar services have launched their own delivery solutions and now compete directly with players such as Postmates as an extension of their established core business.

Pure delivery services

Deliv or Doorman are examples of companies, which offer same-day shipping for various user groups, but predominantly retailers such as mall operators such as Westfield and GGP, relying on a B2B2C model rather than a direct consumer acquisition. They rely on delivery fees paid by merchants or consumers to generate revenue.

Pure tech plays

Onfleet, Bringg, or Tookan are examples of pure tech plays that, provide the IT backbone to support delivery capabilities of the previously mentioned services. They typically make money through a mix of one-off development fees and volume-contingent charges per delivery.

Legal notice

McKinsey is not an investment adviser; and thus, McKinsey cannot and does not provide investment advice. Nothing in this report is intended to serve as investment advice or a recommendation of any type of transaction or investment, the merits of purchasing or selling securities, or an invitation or inducement to engage in investment activity.

Further important notice

This market report has been prepared by a McKinsey team on the basis of public sources and information gathered by McKinsey via interviews with more than 40 industry experts – from start-up founders to investors to their partners along the entire value chain – as well as test purchases and market surveys. In preparing the report, the team has relied on the accuracy and completeness of the available information and has not undertaken independent verification of the accuracy or completeness of such information.

The report's focus is clearly on developing a perspective on the urban delivery market as a whole rather than projecting future developments, earnings capacity, plans and expectations regarding the business and growth and profitability of individual companies operating in this market or any similar markets. Accordingly, where possible and practicable, examples involving multiple companies are provided to illustrate statements concerning future developments. Also, due to this focus on the overall macromarket, developments at single companies – especially recent ones such as the launch of Amazon Fresh in Germany – are beyond the scope of this report.

The report's editorial deadline was May 15, 2017

Authored by:



Dr. Thomas Netzer
Senior Partner, Cologne
Thomas_Netzer@mckinsey.com



Dr. Jan Krause
Partner, Cologne
Jan_Krause@mckinsey.com



Dr. Ludwig Hausmann
Associate Partner, Munich
Ludwig_Hausmann@mckinsey.com



Florian Bauer
Associate Partner, Vienna
Florian_Bauer@mckinsey.com



Tim Ecker
Senior Associate, Düsseldorf
Tim_Ecker@mckinsey.com

