

ALL ROADS LEAD TO ONLINE GROCERY

The state of online grocery in 2019 & critical challenges for the road ahead

All roads lead to online grocery

THE STATE OF ONLINE GROCERY IN 2019 & CRITICAL CHALLENGES FOR THE ROAD AHEAD

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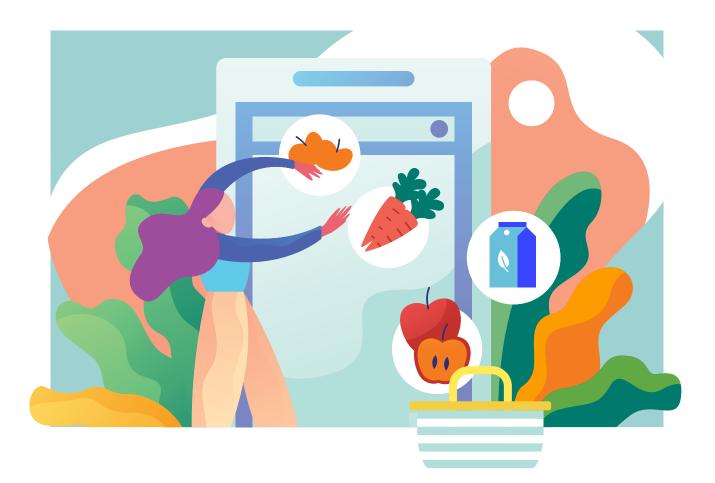


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CONCLUSION ²⁵



Looking back at 2019, it's clear that online grocery in the U.S. has passed its tipping point. It's no longer a question of "if," but "how fast?"

"A thousand roads lead a man forever toward Rome." The famous 1175 proverb attributed to French poet Alain de Lille accurately describes the state of online grocery in the U.S. in 2019. Though the contributing factors may be winding and complex, the end result is the same: online grocery has passed its tipping point and is now an undisputed inevitability.

In an industry full of conflicting numbers, this report cuts through the noise and analyzes the biggest drivers of grocery e-commerce growth in 2019. After many years of online grocery penetration stubbornly hovering around 2%, today it's tracking slightly ahead of initial projections and is set to more than double in the next five years. By 2024, the online share of grocery sales will likely be in the double digits, a metric that would have been unthinkable just a few short years ago.

After years of skepticism in an industry that's long been underpenetrated by e-commerce, 2019 made it official: all roads lead to online grocery.

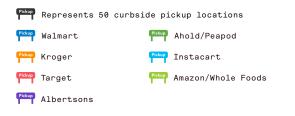
In 2019, retailers continued to expand their offering of curbside pickup & same-day delivery

Curbside pickup locations by major grocery retailers grew by 68% in 2019

Curbside pickup, which grew by 130% in 2018, continued to see significant rollout in 2019. 21% of the U.S. population tried curbside pickup in 2019¹ and the channel was estimated to account for 70% of online grocery sales.²

There's no question that the big dog of curbside pickup has been Walmart. Leveraging its renowned physical footprint, it rolled out 3,100 curbside pickup locations in 2019, exceeding its initially stated plans to have 2,140 pickup sites by 45%. But Walmart certainly wasn't alone in investing in curbside pickup; Amazon joined in on the action, rolling out Prime Now Pickup in almost 80 Whole Foods locations across the country, and Instacart significantly expanded its pickup services to more than 50 grocery partners, including Publix and Wegmans.

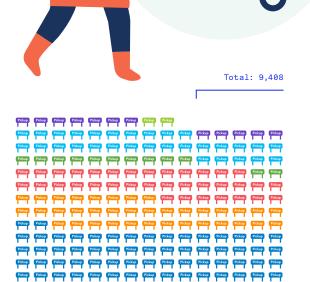
Total curbside pickup locations by major retailers



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Pickup	Pic													
Pickup														
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January 2019

Source: Company data analyzed by Fabric



December 2019

¹ Cowen, "OC's 2025 List on the Future of Retail: New Customers & New Engagement Models," December 23, 2019

² Evercore ISI, "Millennial Food Survey: OK, Boomers, the Time for Multichannel is Now," December 12, 2019

Retailers are still only leveraging a fraction of their physical footprint for curbside pickup

With the notable exception of Target, which in 2019 made curbside pickup available from 94% of its stores, many retailers still haven't leveraged a large percentage of their physical footprint for curbside pickup. Despite Walmart's bullish curbside pickup reputation, 45% of its store network still didn't offer the service by the end of 2019; the same was true for Kroger.

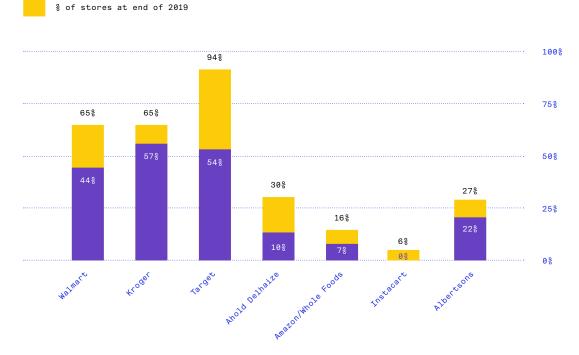
Given this ample room for growth, we expect curbside pickup growth to only accelerate in 2020.

% of stores at beginning of 2019

Instacart just announced that they intend to double their pickup growth this year, with plans to end 2020 with the largest pickup retail footprint in North America, bringing the service to all 50 states. "2020 is the year of pickup," said Instacart's president Nilam Ganenthiran.

Cowen estimates that grocery curbside pickup could be a \$30 to \$35 billion channel by the end of this year, accounting for a whopping 4-5% of the U.S. food and beverage market.³

% of stores that offered pickup in 2019



Source: Company data analyzed by Fabric

³ Cowen, "Curbside, Connected, & Robotic Retail Revolution," March 26, 2019

Locations that offer same-day delivery grew by 48% in 2019

Same-day delivery, which saw growth of a jawdropping 400% in 2018, experienced comparatively modest roll-out in 2019. The number of major retailers' stores that offered same-day delivery grew by 48% in 2019, increasing from 5,216 at the beginning of the year to 7,642 by the end of the year.

Amazon is continually setting the bar and experimenting in the space. In addition to expanding Prime Now delivery from Whole Foods, it curiously revived AmazonFresh, which it had scaled back in recent years, expanding its availability from 10 to 25 cities. The real wild card for 2020? Amazon's new brand of grocery store, which will open in California this year.

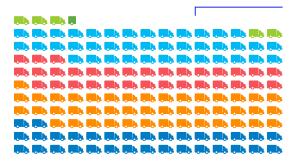


Total grocery store locations that offer same-day delivery

Represents 50 stores	that provide same-day delivery
📜 Walmart	🔜 Ahold/Peapod
, Kroger / Instacart	, Albertsons/Instacart
Target/Shipt	Amazon/Whole Foods

Total: 5,216

January 2019



December 2019

Source: Company data analyzed by Fabric

Total: 7,642

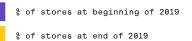
Stores offering same-day delivery approached saturation in 2019 - with a few notable exceptions

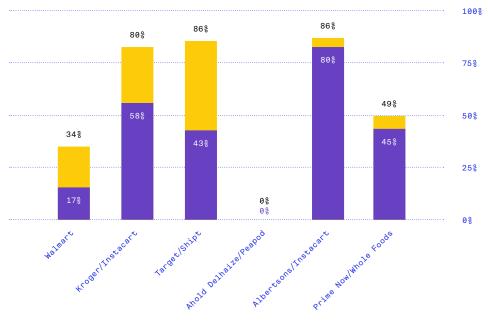
Roll-out of same-day delivery may have been relatively modest in 2019, but that's only because many retailers had already completed much of the roll-out in 2018. At the beginning of 2019, 80% of Albertsons stores and 58% of Kroger stores already offered same-day delivery through Instacart. By the end of 2019, some retailers reached almost total saturation in their stores' same-day delivery offering. For example, 87% of Target stores offer same-day delivery through Shipt, 88% of Albertsons stores offer same-day delivery through Instacart, and 80% of Kroger stores offer same-day delivery through Instacart.

But other retailers have been considerably slower to roll out same-day delivery, perhaps because they've

been more hesitant to partner with third-party in-store fulfillment. Notably, Ahold Delhaize and its digital arm Peapod only ran pilots for same-day delivery in a handful of zip codes in 2019, and has historically relied on next-day delivery as its primary company strategy. (Recognizing the growing demand for same-day fulfillment, Peapod executives have announced that in 2020, same-day or immediate delivery options will become available to 65% of their shoppers.) And Walmart, which has invested so heavily in curbside pickup, made its Delivery Unlimited service available from only one-third of its nearly 5,000 stores.

% of stores that offered same-day delivery in 2019





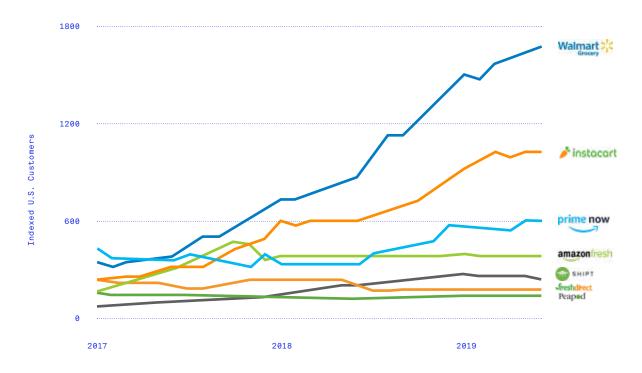
Source: Company data analyzed by Fabric

New market leaders have emerged, with Walmart & Instacart establishing a sizable lead

While many retailers feared a grocery apocalypse when Amazon announced its acquisition of Whole Foods in June 2017, a more nuanced reality has emerged. Walmart has become a serious force to be reckoned with, with many analysts noting that it overtook Amazon as the top online grocer in 2019.

But the real dark horse of online grocery? Instacart. It stampeded from behind at breakneck speed and established itself as a formidable force in the online grocery space. Though Instacart is not a retailer in and of itself (yet...), roughly half of the top 50 U.S. grocers have turned to Instacart. Though estimates vary, Barclays believes that retailers using Instacart today account for 40 percent of total industry sales.⁴ However, it would be rash to dismiss Amazon so soon. It's the hobby of billionaires to reshape markets, and no one is more apt to do so than Jeff Bezos. Online grocery may be a hard nut to crack, but check out what happens when you type www.relentless.com in your browser. Amazon still has major grocery ambitions, and Morgan Stanley believes that they're focused on grocery as their #1 category. Amazon's new internally developed grocery concept, which will launch this year and will likely leverage their new technology, could have a major impact on the sector.

Online Groceries -U.S. Monthly Customers



Source: Second Measure, "Speeding Past Instacart, Walmart Grocery is top U.S. online grocery service," 12 August 2019

⁴ Barclays, "Dissecting the Instacart Addiction," 28 May 2019

 $^{\scriptscriptstyle 5}$ Morgan Stanley, "Brick vs. Clicks: The Key 2020 Debates," January 2020

There's increased conviction that online sales penetration will reach 10% in just a few years

The percentage of people who purchase groceries online regularly more than doubled from 2018 to 2019

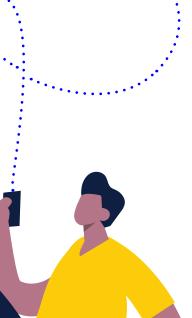
For years, skeptics of grocery e-commerce insisted that consumers would never choose to shop for groceries online en masse; the need to stroll the aisles and feel the weight of an avocado in one's palm was too strong, they argued. 2019 proved that consumers are indeed very hungry for online grocery. According to a survey from TABS Analytics, the percentage of people who purchase groceries online regularly more than doubled from 17% in 2018 to 37% in 2019.

Percentage of U.S. consumers who shop online for groceries

Purchased groceries online



Source: TABS Analytics, 7th Annual Consumer Value Study: Food & Beverage (Consumables), September 2019

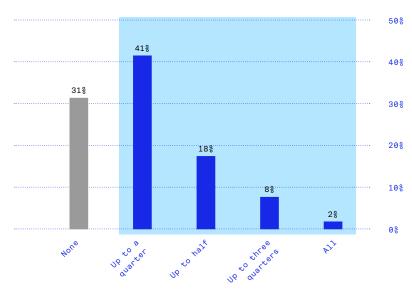


Moving forward, 69% of consumers plan to buy at least some of their groceries online

According to a consumer survey we conducted, consumer intent is strong to keep shopping for groceries online. In the coming year, the vast majority of consumers plan to buy at least a quarter of their groceries online. Per Evercore ISI, it was always a supply problem, never a demand problem: "Consumer demand for convenience is real, although the ability to supply good quality perishables consistently and at a low cost has been lacking in the U.S. market." •



Percentage of groceries that consumers expect to buy online in the next year





Source: Fabric consumer survey, January 2020

⁶ Evercore ISI, "OCDO - Innovation on a Hyperloop, but Valued as Such," October 10, 2019



The average industry estimate for online grocery growth from 2018 to 2019 was 30%

Driven by the rollout of online grocery offerings and surging consumer demand, grocery e-commerce in the U.S. continued to grow rapidly in 2019. The average estimate for the growth of grocery e-commerce sales in 2019 was 30% year-over-year, similar to the ~35% year-over-year growth we saw from 2017 to 2018.



Estimated grocery e-commerce growth from 2018 to 2019

Sources:

eMarketer, "Grocery ECommerce 2018," April 2019

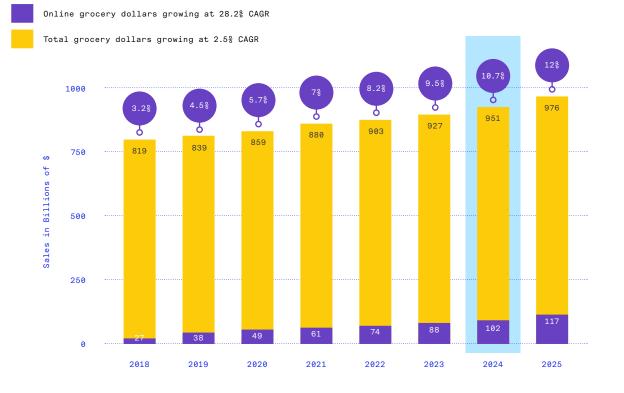
Evercore ISI, "OCDO - Innovation on a Hyperloop, but Valued as Such; Initiate at In Line," October 10, 2019 Deutsche Bank, "Food Fight Round 2: Convenience & Digital Gaining Ground," 12 Noveber 2019 IRI, Annual Growth Summit, March 2019, as cited by Forrester, "What's Going on with Online Grocery," 19 March 2019 Nielsen, "Top 5 Factors that Impacted Online Grocery Business in 2019," December 2019

The online share of grocery sales hit 4.5% in 2019 and is on track to reach double digits by 2024

Deutsche Bank estimates that 2019 grocery sales in the U.S. hit \$38 billion, which represents 4.5% of the \$839 billion total grocery market. (Notably, Forrester estimates that online penetration was already as high as 6.5%) by the end of 2019.⁷ have "increased conviction" in their expectation for an inflection in online grocery penetration to reach 12% by 2025. Deutsche Bank, Evercore ISI, and Bank of America all agree with the basic growth projection that online penetration is around 4-5% today and will more than double in the next five years.

According to Deutsche Bank, online grocery growth is tracking slightly ahead of schedule, and they Looking long-term, Evercore ISI projects that online grocery is on track to hit 20% by 2030.

Projected growth of the grocery industry



4.5%

Source: Deutsche Bank, "Food Fight Round 2: Convenience & Digital Gaining Ground," 12 November 2019

⁷ Forrester, "What's Going on with Online Grocery," 19 March 2019

HOWEVER, RETAILERS WILL CONTINUE TO FACE SERIOUS CHALLENGES IN 2020

As grocery spending continues to shift online, retailers will be forced to scale their operations and business to accommodate the rise of e-commerce. While many challenges will abound, we've identified "3 Ps" that we believe are especially critical problems to address:



Proposition



Picking in-store



Profitability

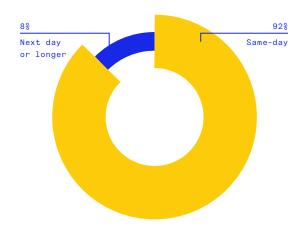
01: Proposition

Consumers demand the fastest fulfillment, straining retailers' infrastructures

92% of consumers want their groceries for same-day delivery or pickup and 65% would consider switching retailers if their normal store didn't offer it

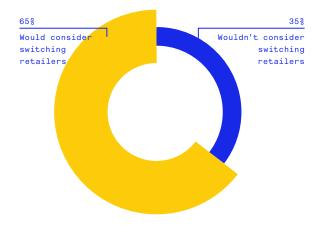
In 2019, speed of fulfillment became non-negotiable for online grocery shoppers. Whether it's for home delivery or curbside pickup, the vast majority of today's shoppers expect it to happen on the sameday. According to a new consumer survey we conducted, 92% of consumers prefer same-day fulfillment over next-day or two-day, and 65% would consider shopping from a different retailer if their normal grocery store didn't provide the service.

Consumers' preferred fulfillment window for online groceries



Retailers risk losing 65% of their customers if they don't provide a same-day offering

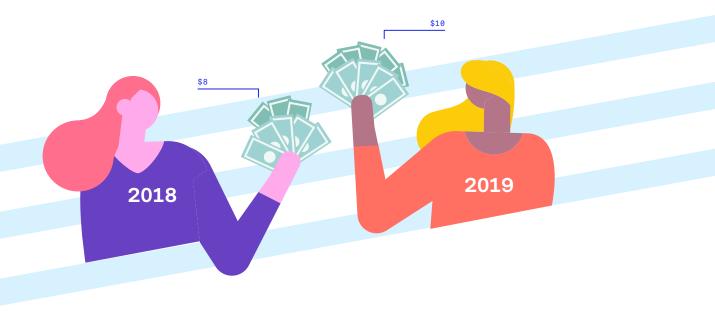
If a retailer doesn't provide a same-day window for home delivery or curbside pickup:



Source: Fabric consumer survey, January 2020

Consumers were willing to pay 25% more in 2019 than they were in 2018 for same-day delivery

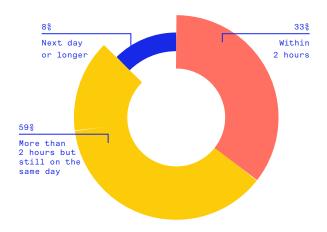
The consumer demand for same-day grocery delivery is so strong that in 2019 they were willing to pay \$10 for it, a full \$2 more than they were willing to pay in 2018. Consumers want their online grocery orders fulfilled as quickly as possible, and they're willing to put their money where their mouths are.



Source: Evercore ISI, "Millennial Food Survey: OK, Boomers, the Time for Multichannel is Now," Dec. 12, 2019

Heralding a new standard for speed, 1/3 of consumers want their grocery orders within two hours

Not only do consumers overwhelmingly prefer same-day delivery or pickup for their online grocery orders, but there's now a growing preference for on-demand fulfillment. Of all available fulfillment windows, 33% of consumers we surveyed would prefer to have their grocery orders fulfilled within two hours, suggesting that the on-demand proposition is increasingly important.

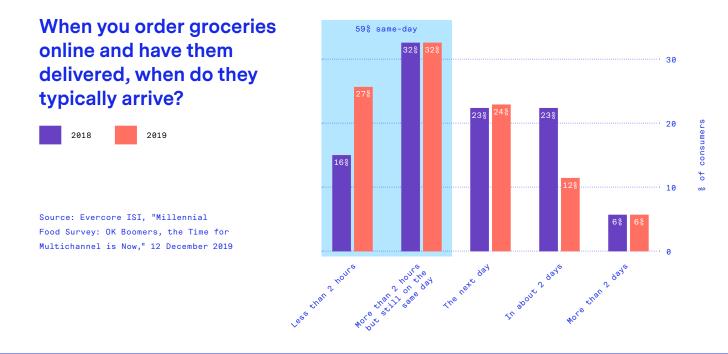


Consumers' preferred fulfillment window for online groceries

Source: Fabric consumer survey, January 2020

The share of consumers who received grocery delivery in less than 2 hours nearly doubled between 2018 & 2019

Not only do consumers prefer on-demand fulfillment; retailers appear to be delivering. According to Evercore ISI, 59% of consumers who had online groceries delivered had it done on the same day or faster in 2019, compared to 48% in 2018.



Despite the growing consumer appetite for speed, same-day grocery fulfillment is complex, costly, and downright difficult

The faster an order needs to be fulfilled, the more complex it is, and that's especially true for the throughput-intensive nature of grocery, where each order contains on average 50 items. We estimate that an average American supermarket sells 8.6 million items a year, which means it nearly has nearly the same throughput as a goliath distribution center.

In addition, grocery faces uniquely daunting operational challenges. The average supermarket carries around 33K SKUs that span multiple temperature zones and have a limited shelf life, running the gamut from yogurt that must stay refrigerated to bananas that must remain at room temperature. Bringing that operation online while ensuring high inventory availability and low waste is extraordinarily challenging. Even fulfilling grocery orders for as quickly as the next day requires "military precision," says the *New York Times*; * same-day or on-demand is even harder. This is an immediate strategic and operational challenge that grocery retailers will need to reckon with as they expand their online offerings. As we explore in the next sections, while many retailers are successfully providing the same-day propositions their customers demand, it's coming at a great cost, both literally and strategically.

⁸ New York Times, "A Street Fight Among Grocers to Deliver Your Milk, Eggs, Bananas," June 24, 2017

Retailers are overwhelmingly relying on in-store picking, which is destroying the brick-and mortar shopping xperience

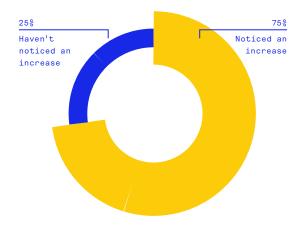
Whether they're outsourcing it to third parties or handling it themselves in house, the major grocery retailers in the U.S. are overwhelmingly relying on in-store picking to fulfill their customers' online grocery orders. In-store picking is an attractive option for obvious reasons — by leveraging retailers' existing brick-and-mortar assets, in-store picking requires minimal upfront investment, is quick to deploy, and is still able to meet the customer demand for same-day fulfillment.

But in-store picking is a model that's fraught with issues. Not only is it financially unviable (a critical point which we cover in the next section); it also destroys the in-store experience for shoppers who are still spending 95.5% of their grocery dollars in the brick-and-mortar stores.

75% of consumers have noticed a rise in instore pickers over the past year and 33% feel that their grocery shopping experience has been negatively impacted

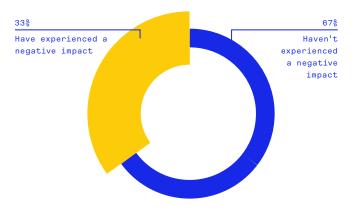
In a consumer survey we conducted, 3 out of 4 consumers reported that they've noticed a rise in "hired shoppers" picking orders for online customers in the grocery store over the past 12 months, and 1 out of 3 consumers have had their in-store grocery shopping experience negatively impacted by these pickers.

Consumers who have noticed a rise in hired shoppers picking orders for online customers in the past 12 months in the grocery store

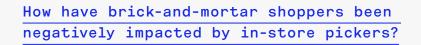




Consumers whose in-store grocery shopping experience has been negatively impacted by manual pickers



Source: Fabric consumer survey, January 2020





25% of consumers feel annoyed or frustrated to see manual pickers in the grocery store

Even as the online share of grocery sales becomes substantial, physical grocery stores aren't going to go anywhere — consumers are always going to value smelling the aroma of freshly baked bread or choosing the perfect cut of meat from the butcher counter. Grocery shopping can be a stimulating, emotional experience, and it's reasonable to imagine that as our lives become increasingly digital, we'll expect even more from our ventures to the grocery store than we have in the past. That's why the chaos caused by in-store manual fulfillment is so problematic. According to our survey, 1 out of 4 consumers feel annoyed or frustrated to see manual pickers in the grocery store. And of those who have noticed a rise in hired shoppers, 32% of consumers say it has made going to the grocery store less enjoyable. As retailers work to scale their online businesses, they should be mindful to ensure that their stores remain fulfilling — and not of e-commerce orders, but of experiences.

> 25% Frustrated

How do people feel to see manual pickers in the grocery store?

32%: "in-store pickers have made going to the store less enjoyable."

Not Frustrated

Source: Fabric consumer survey, January 2020

Third-party in-store picking poses a strategic threat to retailers' relationships with their customers

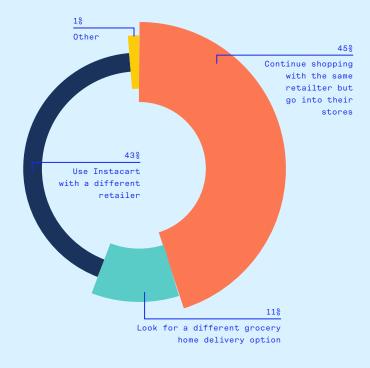
4 out of 10 consumers are more loyal to Instacart than they are to their grocery retailers, jeopardizing valuable revenue

Roughly half of the top 50 U.S. grocers have turned to Instacart as a turnkey solution for the fulfillment of online grocery orders, and Barclays estimates that retailers using Instacart account for 40% of total industry sales. The advantages of partnering with Instacart or similar third parties are clear: like in-store picking, third-party picking requires minimal capex, is relatively quick to deploy, leverages retailers' existing infrastructure, and provides the on-demand experience that customers demand.

While many retailers have viewed Instacart as a temporary stop-gap solution for fulfillment until they figure out a more strategic solution long term, new research suggests that Instacart poses a grave immediate threat. According to Barclays, "retailers who use Instacart create significant risk that they not only lose control of their customer and vendor relationships, but also lose significant valuable data and profitable vendor allowances."

In a consumer survey, Barclays found that nearly 50% of Instacart users utilize the platform more today than they did six months ago, and 43% would just use a different retailer if their preferred retailer were no longer available on Instacart. In other words: if you're a grocery retailer who uses Instacart, more than 4 out of 10 of your customers are more loyal to Instacart than they are to you.

If a consumer's preferred retailer was no longer on Instacart, 43% of consumers would use Instacart with a different retailer



Source: Barclays, "Dissecting the Instacart Addiction," 28 May 2019

"Retailers should be concerned."

- Barclays

This translates to a significant amount of revenue that's at risk or already compromised for retailers who partner with Instacart, which is particularly painful given grocery's razor-thin profit margins. "For every 1% sales loss, you've lost 10% of EBIT," said the Barclays report author Karen Short in an interview with Mercatus. ⁹

This consumer "addiction" to Instacart illustrates just how important the on-demand proposition is — once you've become accustomed to the convenience of one-hour grocery delivery, it's very hard to go back.

Other insights from the Barclays report include:

- If Instacart delivers low quality product, or has a high rate of substitution, the customer generally blames the retailer, not Instacart
- If the order and experience is satisfactory, the customer attributes the positive experience to Instacart, not the retailer
- Nearly one-quarter of those surveyed identify Instacart as their preferred way to shop, and only 22% of respondents said they are loyal to their favorite grocers

While extricating themselves from Instacart's grasp will be no easy task, 2019 shows us that it's critical for retailers to regain control over their hardearned customer relationships and own the online experience.

⁹ Mercatus, "Interview with Barclays on "Dissecting the Instacart Addiction"

Wall Street confirms that retailers lose more than \$10 on every in-store manually fulfilled order that's delivered

Last year, we estimated that retailers lose \$5 to \$15 on every manually picked online grocery order, a calculation that was confirmed by a P&L from Jefferies on the different online grocery fulfillment models.

Notably, outsourcing picking and delivery to a third party like Instacart is only marginally less dilutive than doing it yourself — retailers still lose about \$2.50 on every order fulfilled by Instacart — "making the practice all the more questionable, if sales aren't largely incremental and ownership of data/vendor allowances are at risk." ¹⁰ Both methods of in-store picking are unsustainable, and grocery retailers need to figure out a new fulfillment model before increased consumer demand threatens their entire business.

Online grocery fulfillment

To address this profitability problem, retailers are increasingly looking towards automation. While centralized automation is a tried and true model, for online grocery fulfillment, it has many shortcomings. Not only is centralized automation extremely capitalintensive and slow to deploy, but it also only supports next-day deliveries due to the remote location of the massive warehouses.

According to Jefferies, "micro-fulfillment is superior to all fulfillment models." By fitting the economics of automation close to where consumers live, micro-fulfillment makes even on-demand deliveries profitable. It eliminates more than 75% of in-store picking costs, leverages pre-existing assets such as retailers' stores, and is relatively easy and fast to deploy. As we look towards the future, microfulfillment is set to have a macro impact.



Source: Extracted from detailed P&L from Jefferies, "Fulfilment Deep Dive: MFCs = Best Path to Profitability," Oct. 23, 2019

¹⁰ Jefferies, "Fulfilment Deep Dive: MFCs = Best Path to Profitability," October 23, 2019



The road ahead

As we look toward the future, some things we can predict with reasonable certainty. By the end of 2020, the online penetration of online grocery sales in the United States will likely be close to 6%, inching ever closer to the double digit milestone. Retailers will continue to roll out their same-day delivery and curbside pickup options, fueling the ever growing consumer appetite for speed and convenience. And retailers will likely explore automated microfulfillment, a fulfillment model with a lot of promise for profitability and scalability.

But there's still a lot we don't know. What will Amazon do next? As sales shift online, how will the store

evolve to be more experiential? As retailers innovate to execute an effective e-commerce operation, how can they build a network of alliances with partners that mitigate risk rather than increase it?

The exact future remains to be seen, but we believe that Alain de Lille's famous 1175 proverb applies to the current state of online grocery: "A thousand roads lead a man forever toward Rome." Regardless of exactly how future events unfold, they'll all lead to the same result — online grocery in the U.S. has become an inevitability.

Fabric

Fabric makes on-demand fulfillment possible and profitable for retailers while powering every retailer's unique offering. The company builds automated micro-fulfillment centers that make on-demand fulfillment profitable by locating automation physically close to end customers.

Unlike any other micro-fulfillment solution, Fabric's unique purpose-built proprietary solution enables cloud-like elasticity for retailers, enabling them total flexibility to build a custom solution based on their unique inventory level, desired reach, and opex and capex requirements, expanding and flexing as their needs change.

The company's solution has been deployed commercially since 2018 and is production-proven. With offices in Tel Aviv and New York, Fabric is rapidly expanding its U.S. operations. Founded in 2015, Fabric is backed by Aleph, Corner Ventures, Canada Pension Plan Investment Board (CPPIB), Innovation Endeavors, La Maison, Playground Ventures, and Temasek.

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