A study conducted for the Coca-Cola Retailing Research Council, Europe by McKinsey & Company

March 2015
The Coca-Cola Retailing Research Council, Europe

The Coca-Cola Retailing Research Council, Europe, is dedicated to the development of a better understanding of the food retailing and allied merchandise distribution business in Europe. The focus of its energies is to identify and then to study selected critical issues and problems and, when appropriate, to present the findings in a suitable forum, so that full advantage of the information can be taken to further develop and enhance the effectiveness of the food retailing distribution business.

About this report

Since 1978, the Coca-Cola Retailing Research Council (CCRRC) has supported independent research on the most pressing issues facing food retailers. Launched first in the United States and then in Europe, Latin America, and Asia, the CCRRC has produced more than 60 studies conceived by retailers for retailers.

The topics for studies are selected by a regional Council of leaders from the retail sector. The quality and independence of the analysis is assured though the involvement of an advisory board drawn from Council members, oversight of the project by a distinguished independent research director (in the case of this report, Anthony Freeling), and analytical support from a leading external advisory firm. The content and conclusions of the research are developed independently from The Coca-Cola Company.
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Foreword

Online grocery is growing fast in several countries, but remains at a low base. Many retailers are examining their strategy for e-commerce but are finding it difficult to identify a profitable operating model. This is true even for some grocers that have a sizeable online grocery business. The members of the Coca-Cola Retailing Research Council believe that now is the time to embrace the opportunity.

This report, which arises from research sponsored by the Council and conducted by McKinsey, is intended to help the industry take the necessary next steps. It provides advice to any European retailer on how to select and develop an operating model for online grocery that reflects its starting point (in terms of customer demand and supply) and that can be sustained in the face of likely innovations and new competitors.

E-commerce will become increasingly important to grocers all across Europe. We, the members of the Council, hope that CEOs and executives at grocery retailers will find the report useful as they make decisions in this complex, fast-changing arena.

The Coca-Cola Retailing Research Council, Europe

March 2015
Online grocery has been slow to take off in most of Europe. Even in the two most advanced markets—the United Kingdom and France—it accounts for only around 5 percent and 4 percent of sales respectively. This slow growth, however, shouldn’t fool retailers into complacency: customers want to buy groceries online, and will do so from retailers that offer good products and services. E-commerce will play a crucial role in the future of the grocery sector and the profitability of every grocer.

Our research has yielded valuable insights about the development of online grocery in Europe, what customers need and expect from online grocers, and what it will take for retailers to succeed. The following five themes summarise our findings, discussed in greater detail in each chapter of this report.

**Pay attention to customers and “customer economics”**. European consumers find the promise of online grocery alluring, but the reality falls far short of their expectations. Why? We believe it’s because retailers have been put off by the channel economics of online grocery and so have underinvested in it. The channel economics are undeniably difficult: online grocery adds costs and lowers overall profitability. But if retailers were to examine the **customer economics**—that is, if they were to look at metrics such as profit generated from a customer across channels—they would realise that the decision not to invest in online grocery today could lead to even poorer profitability down the road. This is because online grocery is essential to helping a retailer attract and retain the most valuable customers: multichannel shoppers. In the next three to five years, we expect customers will shift more of their grocery spending to the online channel. Even a small shift in sales away from physical stores will have a substantial impact on profitability. Viewed through the lens of customer economics, online grocery starts to look like a must-do.

**Tailor the model to the market**. In online grocery, just like in store-based retailing, what works in one country won’t necessarily work in another. We studied the barriers to online grocery in 12 European countries and found that the barriers in Sweden, Finland, and Switzerland, for example, are similar to those in France, but very different from those in Spain or Italy. Retailers should understand the specificities of each market and customise their approaches accordingly.

**Fix the basics, focus on “fresh” and delivery fees, and then expand the offer**. Customers find the proposition of online grocery appealing, but encounter frustrations at each stage of the online shopping process. Retailers must get the basics right: an easy-to-use website and mobile app, products that are reasonably priced, and orders that arrive on time and in good condition, with minimal substitutions. And to convince customers to do their weekly grocery shopping online, retailers must step up their game in the fresh-food categories and reduce delivery fees. Then, once a retailer has mastered these aspects, it can explore ways to cater for additional shopping occasions and serve new customer segments online. We tested four new concepts in focus groups: a global food marketplace, a combination drive-through and fresh market, an online discounter, and a grocery subscription service. Each of the four concepts had elements that appealed to consumers, but each also had clear downsides.
Choose your operating model wisely and execute it well. Picking-and-packing operations and last-mile services are the two main components of an online grocer’s operating model, and both represent major challenges for retailers. For picking-and-packing operations, each option—from in-store picking to fully automated warehouses—has its trade-offs. Retailers must consider a number of factors including capital expenditure, operating costs, capacity, and flexibility. For last-mile services, too, both delivery and click-and-collect have pros and cons. But regardless of the chosen operating model, execution can make a dramatic difference in performance. Two retailers can employ the same picking model, for example, yet achieve differing results—as much as a 4 percent variance in trading margin—due entirely to the specific methods and tools used for picking.

Balance a long-term perspective with short-term action. The successful online grocer of the future will be one that can invest patiently for years, but also take bold action rapidly. Doing online grocery right won’t be cheap, and building the capabilities to become competitive will take time—so patience is important. At the same time, the fast pace of change in the online arena means retailers must be able to react quickly to market developments. To cultivate this two-speed mentality across its entire organisation, a retailer will need three enablers: strong support from leadership, an autonomous online team, and agile IT systems and processes.
The channel economics of e-commerce have held back many grocers from making big investments in it—but what grocers should really be looking at are the “customer economics”.

For almost two decades, online grocery has been an intriguing—but not entirely appealing—proposition for retailers in Europe. In several product categories (most notably books, music, apparel, and consumer electronics), sales have steadily migrated from physical stores to the Internet. Consumers have shifted many activities to the digital world, from paying bills to sharing photographs to booking flights. Yet, for the majority of European consumers, grocery shopping has stubbornly remained an offline task. Even in the two most advanced markets—the United Kingdom and France—online grocery accounts for only around 5 percent and 4 percent of sales respectively.

It’s not that Europeans don’t want to buy groceries online. Research, including our own, has repeatedly shown that many European consumers find the promise of online grocery alluring: they can shop at any time of day, they don’t have to drive to and from a store, and they can avoid the hassle of pushing a shopping cart up and down the aisles searching for all the items on their shopping list. The problem is that the reality of online grocery falls far short of their expectations. To this day, in most of Europe buying groceries online is a tedious, frustrating exercise: websites are hard to navigate, delivery is expensive and not always reliable, orders arrive incomplete or with damaged or soon-to-expire products. Even if the demand for online grocery is there, the supply is not—or at least not yet good enough to convince consumers to change their habits.

Why is the supply so poor? We believe it’s because retailers have been put off by the channel economics of online grocery. The difficulty of making a profit has discouraged many retailers from investing meaningfully in the channel. However, if they were to examine the customer economics of online grocery, they would see that the decision not to invest today could lead to even lower profitability down the road. In other words, venturing into online grocery is costly, but doing nothing (or doing something, but doing it poorly) will be even costlier.

A vicious cycle

The channel economics of online grocery are undeniably challenging. After all, e-commerce makes the retailer responsible for some of the work that customers have traditionally done themselves: picking products off shelves and getting them home (see graphic “Understanding the channel economics of online grocery”, page 8).

Retailers have different ways of breaking out and allocating the costs of the online business, particularly when it comes to labour and infrastructure that serve both online and in-store customers—but whichever methodology they use, they tend to find that online grocery causes labour costs to go up, net margins to go down, and overall profitability to suffer. If channel economics were the only consideration, online grocery would be a foolish venture for a retailer (Exhibit 1).
Factors affecting online economics (esp. for delivery)

<table>
<thead>
<tr>
<th>Channel contribution of hypothetical retailer in multiple markets, using store picking</th>
<th>Physical stores</th>
<th>Online (store pick, home delivery)</th>
<th>Online (store pick, click-and-collect)</th>
<th>Factors affecting online economics (esp. for delivery)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UK supermarket</strong></td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>Low delivery fees</td>
</tr>
<tr>
<td><strong>French hypermarket</strong></td>
<td>5</td>
<td>-4</td>
<td>2</td>
<td>Low drop densities, High labour cost</td>
</tr>
<tr>
<td><strong>Polish supermarket</strong></td>
<td>6</td>
<td>-2</td>
<td>2</td>
<td>Small basket size</td>
</tr>
</tbody>
</table>

Due to these difficult economics, many retailers proceed cautiously—and the typical result is an obviously underfunded and subscale e-commerce business. Consumers see a lacklustre offering, an uninspired and uninspiring website, poor execution, and insufficient incentives to get them to try online grocery long enough to change their habits, so they soon decide to go back to shopping in stores. Retailers’ online operations remain costly and inefficient and too little is invested in minimising variable costs. So goes the vicious cycle: poor supply constrains demand, which makes the channel economics even more unattractive and discourages grocers from continuing to invest in the online channel.

But if they were to view online grocery through a different lens—namely, customer economics—they would see a dramatically different picture.
Understanding the channel economics of online grocery

Revenue and cost breakdown calculated for UK supermarket, using in-store picking
Per basket, indexed\(^1\)

\[
\begin{align*}
\text{Sales} & \quad 100.0 \\
\text{COGS}^2 & \quad -70.0 \\
\text{Marketing income} & \quad 1.0 \\
\text{Delivery income} & \quad 3.0 \\
\text{Gross margin} & \quad 34.0 \\
\text{Picking} & \quad -8.0 \\
\text{Delivery costs} & \quad -9.0 \\
\text{Marketing} & \quad -3.0 \\
\text{Other}^3 & \quad -8.0 \\
\text{Trading margin} & \quad 6.0 \\
\text{Trading margin} & \quad 6.0 \\
\text{Overhead}^4 & \quad -0.5 \\
\text{Depreciation} & \quad -0.5 \\
\text{Channel contribution} & \quad 5.0 \\
\text{Net cannibalisation} & \quad -1.0 \\
\text{Net channel contribution} & \quad 4.0
\end{align*}
\]

\(^1\) Assumptions: basket size = €125 with 77 items; 85 items picked per hour of picking labour; 2.8 van drops per hour of delivery-van driving time.

\(^2\) Cost of goods sold.

\(^3\) Includes distribution, replenishment, waste, credit-card charges, and consumables.

\(^4\) Incremental fixed costs attributable to the online operation (e.g., in purchasing and administrative functions). Excludes any sunk costs.
Shaping the future of online grocery

### COGS² (estimate, dominant grocery format)

<table>
<thead>
<tr>
<th>Country</th>
<th>Trading Margin, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>80%</td>
</tr>
<tr>
<td>France</td>
<td>75%</td>
</tr>
<tr>
<td>Poland</td>
<td>73%</td>
</tr>
<tr>
<td>UK</td>
<td>70%</td>
</tr>
</tbody>
</table>

### Basket size

- **Base case:** 125
- **Observed range:** 50 to 300 €/basket

### Picking*

- **Base case:** 85
- **Observed range:** 50 to 250 items/hour

### Delivery costs

- **Base case:** 2.8
- **Observed range:** 1 to 12 drops/hour

### Net cannibalisation (illustrative)

| Channel contribution | Margin from cannibalised sales weighted for higher margin offline | Margin from halo effect: additional offline sales due to online presence | Net channel contribution |

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*This is the fully loaded picking rate (total number of items picked divided by total picking labour hours).*
The customer dimension

Online grocery attracts multichannel shoppers: people who shop online as well as in physical stores. And retailers are beginning to realise that these customers spend more and buy higher-margin items—and thus are far more valuable—than customers who shop exclusively in stores. One European grocer found that customers who used any two of its three channels—stores, online with home delivery, and click-and-collect—spent more than customers who shopped only at its physical stores. In fact, among customers who used all three channels, average revenue per customer was more than double that of single-channel customers (Exhibit 2). This is not unusual; consumer surveys have indicated that multichannel shoppers outspend only-in-store shoppers by 90 to 120 percent at the UK’s top three supermarket chains.

Exhibit 2. Multichannel customers are the most valuable customers.

<table>
<thead>
<tr>
<th>Physical store</th>
<th>Home delivery</th>
<th>Click and collect</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Home icon]</td>
<td>![Home delivery icon]</td>
<td>![Click and collect icon]</td>
</tr>
<tr>
<td>![Home icon]</td>
<td>![Home delivery icon]</td>
<td>![Click and collect icon]</td>
</tr>
<tr>
<td>![Home icon]</td>
<td>![Home delivery icon]</td>
<td>![Click and collect icon]</td>
</tr>
</tbody>
</table>

As these numbers indicate, online grocery can be thought of as a high-service customer-loyalty programme. For retailers that do it right, it can be an important lever for keeping their most valuable customers and, in some cases, driving growth in share of wallet. One retailer analysed a sample of 900 multichannel households and found that, over the course of a year, their in-store spending fell by 19 percent—but their overall spending with the retailer, including online purchases, increased by 45 percent. In other words, while there was some
cannibalisation, it was far less significant than the impact in terms of increased loyalty to the brand. (Our research indicates that between 50 and 70 percent of sales are incremental for retailers that offer home delivery; the percentages are slightly lower for click-and-collect.)

A strong online grocery presence allows a retailer to meet more of its customers’ shopping needs, which leads to customers spending more at that retailer. It offers convenience, thus helping grocers compete more effectively against discounters—convenience being one of the key pillars of discounters’ success. And it can lure new customers away from competitors that don’t have a web store (or that offer a poor online service). Hence, even though the channel might be dilutive or even unprofitable, online grocery can play a critical role in improving important metrics such as total customer contribution (see sidebar “Using the right metrics”).

### Using the right metrics

Understanding the true value of online grocery isn’t a straightforward exercise. We believe that by tracking two metrics in particular—total customer contribution and net channel contribution—a multichannel grocer can get a good grasp of how well its online business is performing. (These metrics are meant only to inform internal decision making and should not be used as a substitute for generally accepted accounting practice.)

**1. Total customer contribution:** the incremental profit generated by serving an individual customer (or a customer segment) across all channels. This metric reveals whether there are customers or customer segments that are highly profitable offline and may be worth serving online, even at a loss. Capturing competitors’ customers through a better online offer can also create significant value.

**Example:**
- Contribution from customer offline: €400
- Contribution from customer online: –€50
- Total customer contribution: €350

**2. Net channel contribution:** the profit generated by the online business after taking into account incremental costs, cannibalisation, and the “halo effect”. Retailers can use this metric to drive operational efficiency all along the value chain.

- Retailers should ensure that they are allocating only incremental costs and not sunk costs—a distinction that can be particularly tricky when online orders are being fulfilled through in-store picking. Some retailers allocate a fraction of the store’s fixed costs, such as rent and utilities, to the online business, but for decision making it is useful to treat these as sunk costs.
- To account for cannibalisation, retailers should deduct the estimated profit on sales that would have come to them anyway through a different channel (at higher margin).
- The halo effect is an estimate of the additional offline sales resulting from the retailer’s online presence and an overall increase in customer loyalty.

**Example:**
- Online revenue: €100 million
- Less incremental costs: –€95 million
- Incremental contribution: €5 million
- Less cannibalisation¹: –€2.4 million
- Plus halo effect²: €0.8 million
- Net channel contribution: €3.4 million

¹ In this example using 30 percent of sales at a 3 percent higher channel margin.
² In this example using 10 percent of sales at a 3 percent higher channel margin.
Protecting your customer base

If a retailer chooses not to get into online grocery, it puts itself at greater risk of losing customers to a competitor. Already, multichannel grocers—as well as aggressive new entrants—are attracting customers away from traditional grocers.

The new entrants are a mixed breed; they include online category specialists such as Zooplus in pet care or Windeln.de in baby products, meal-kit providers such as Linas Matkasse and HelloFresh, consumer-goods manufacturers going “direct to consumer”, and pure-play grocers like UK-based Ocado—all capturing market share in one or more grocery categories. E-commerce giant Amazon is on the horizon as well: its online grocery delivery service, AmazonFresh, is available in several US cities and will reportedly launch soon in Germany and the United Kingdom. With its global scale, cutting-edge capabilities in IT and logistics, and willingness to accept short-term losses and cross-subsidise between categories, Amazon could quickly gain market share. Other Internet-based services, such as Google Shopping Express and Instacart, both offer fast deliveries from a variety of stores, and could reset customer expectations in terms of delivery speed. And because these services use existing grocery stores rather than their own grocery infrastructure, they can ramp up very quickly.

Such competitors represent a real and growing threat to traditional grocers. Based on current industry trends, consumer research, and our observations of changes in consumer shopping behaviour, we expect that in the next three to five years customers will shift more of their grocery spending to the online channel (both to online grocers and to online category specialists). Even a small shift will have a substantial impact on profitability: our research indicates that, given the high level of fixed costs for store-based retailers, a 5 percent loss in store sales can lead to a 20 percent decline in store earnings before interest and taxes.

As long as a retailer is covering its variable costs, cannibalisation is a much better alternative than losing customers to a competitor’s website—particularly because customers who defect may be enticed by the competitor’s loyalty scheme, get comfortable with the competitor’s product range (particularly its own brands), and develop an overall trust of the competitor. Sooner or later, they could decide to go to the competitor for all their shopping occasions, both online and in-store.

A means of improving the in-store experience

Online grocery can benefit the store-based business as well. Retailers have found that fulfilling online orders from stores makes product-availability issues far more visible, helping to bring about improvements in the supply chain, replenishment processes, and planogram discipline. Moreover, the data that retailers can mine from their websites help them better understand and meet customer needs. For example, a retailer can see
what products are often searched for on the website but turn up no results; it can then add those products to its in-store assortment.

And of course, websites and mobile apps can have a presence in stores and enhance the in-store experience. Customers at UK retailer Waitrose, for example, can use iPads placed in the store to read expert recommendations or learn about new products. It’s likely that, in the near future, more and more retailers will use data from both in-store and online shopping to make personalised, geotargeted offers—but they must ensure that most customers will find the offers helpful rather than intrusive.

Viewed through the lens of customer economics, online grocery starts to look much more attractive—or even imperative. Forward-thinking retailers will act quickly, because they know that building new capabilities (and new mind-sets, such as a customer-economics focus) in online grocery takes time. Once a savvy competitor enters the market, change can happen relatively rapidly, and playing catch-up against a player that has gained scale could be very difficult. Furthermore, as we discuss in the next chapter, retailers can’t just use the same online grocery model in every market. Tailoring is essential.
The barriers to the development of online grocery are different in every country. Retailers must therefore tailor the model to the market.

Online grocery is developing at different rates across Europe. So far, it has gained meaningful market share in only two markets—the United Kingdom and France—and, even in those countries, its evolution has followed very different trajectories. In online grocery, just like in store-based retailing, what works in one country won’t necessarily work in another.

The specific reasons for the slow growth of online grocery vary by market. To understand the current status and potential of online grocery in each of 12 European countries, we studied a range of factors that influence how the market develops. The factors fall into four categories: indicators of latent demand, customer-adoption drivers (such as broadband penetration), indicators of economic viability, and characteristics of the competitive landscape. For each factor, we identified a series of quantitative measures and assigned a score of 1 to 6, with 6 indicating the highest favourability to online grocery development. (For a fuller explanation of our methodology, including definitions of and rationales for each of the factors, see “About the research”, page 46.)

We found certain similarities among markets, suggesting that the development of online grocery could follow the same pattern in those markets; but we also found important differences. To increase their chances of success in online grocery, retailers should become familiar with the specifics of each market and customise their approaches accordingly.

The mature markets: the United Kingdom and France

Based on our research, we devised a graphic that conveys, at a glance, the degree to which each market is ready for online grocery. Exhibit 3 illustrates our assessment of the UK market.
As the chart indicates, UK market conditions are generally favourable for online grocery. Indeed, as early as 2006, an astounding 95 percent of UK households already had home-delivery options available to them. At each of the country’s three largest supermarkets—Tesco, Asda, and Sainsbury’s—e-commerce today accounts for at least 5 percent of sales.

Aside from the United Kingdom, the only other European country in which online grocery has reached scale is France—and there, it has taken quite a different path. France scores high on the requisite conditions for the development of online grocery except for two that have to do with economic viability: degree of urbanisation and labour costs (Exhibit 4). Yet some of the leading grocers in the country have quickly overcome these barriers: they’ve made online grocery economically viable by adopting the click-and-collect model, which in France is known simply as “Drive”. The model allows retailers to avoid the high cost of home deliveries.
French consumers have enthusiastically embraced click-and-collect services. In 2013, French grocers opened two pickup locations every day; the growth is now slowing, but the total exceeds 3,000 across the country. Click-and-collect accounts for 80 percent of online grocery sales in France. E.Leclerc, the second-largest grocer in France and a leader in the click-and-collect arena, does not even offer a home-delivery service in the French market (although it does in Poland).

**The next hot markets**

What’s happening in France could very well happen in several other European countries. After all, economic viability is the primary barrier not only in France but also in Belgium, Sweden, Finland, and Switzerland (Exhibit 5). While success is unlikely to stem from simply copying the French model, grocers in those markets could learn from their French counterparts—that is, they might want to consider making convenient and well-run click-and-collect services broadly available, and perhaps offer delivery services only in the most densely populated cities.
The competitive environment in Germany and the Netherlands hasn’t been conducive to the rapid development of online grocery—yet. In Germany, the very high penetration of discounters, who are unlikely to be early movers, has created less pressure for incumbents to go online. However, speculation surrounding the entry of AmazonFresh into Germany has galvanised grocers, and a number are now moving from small pilots to more serious operations. In the Netherlands, although the top grocer has a strong online proposition, a lack of serious competition has kept fees high (even for click-and-collect), slowing down growth. In both countries, the entry—or threat of entry—of an aggressive competitor could accelerate the development of online grocery, and there are signs that this has started to happen.

As for the four remaining countries we assessed—Croatia, Italy, Poland, and Spain—latent demand and consumer-adoption drivers aren’t yet fully developed nationally. However, there may be a few cities or metropolitan areas—such as Zagreb, Milan, Warsaw, or Barcelona—where consumers are more ready. Retailers could focus on building scaled operations in these select areas, rather than taking a national approach.
By understanding the conditions in each market and how they compare to those in other markets, a retailer can get a good sense of the barriers it faces and the adjustments it may need to make as it launches its online grocery offer. But there’s no guarantee that replicating one country’s model will work in another country. The factors we assessed in our research aren’t the only ones that will determine how online grocery will develop. Customer needs may differ by market and will affect the popularity of one model versus another. The choices made by early movers in each market are also likely to have an impact. In the United Kingdom, for instance, if Tesco had launched click-and-collect first rather than home delivery, it’s possible that the market might look rather different today—perhaps with home delivery concentrated in only a few cities and click-and-collect more dominant elsewhere.

Although retailers would do well to customise their online grocery offer to the specific context of each market, there are fundamental elements that customers everywhere will expect. As we discuss in the next chapter, online grocers must be able to deliver on the basics—otherwise, they simply won’t win the loyalty and trust of consumers.
Fix the basics, focus on “fresh” and delivery fees—then expand the offer

The biggest opportunity for online grocers is in getting the basics right: an easy-to-shop website and mobile app, fresh products that arrive in good condition, and reliable service. Only when they have mastered these aspects should retailers think about expanding their proposition.

According to some retailers, one reason they’re holding back from investing in the online channel is that they believe the “killer app” for online grocery has yet to be invented; they’d rather wait until that compelling technological innovation—whatever it turns out to be—hits the market. But what we heard repeatedly in customer focus groups is that the fundamental promise of online grocery is compelling enough by itself. For now, customers just want online grocers to get the basics right: they want an easy-to-use website and mobile app, products that are reasonably priced, and orders that arrive on time and in good condition, without any substitutions. If they come across a problem, they want competent and courteous customer service.

It doesn’t sound like too much to ask. Unfortunately, customers are frequently frustrated with their online grocery experience. They say the failings are particularly noticeable when it comes to fresh food and delivery: two big reasons that they’re not using online grocery for their regular weekly shopping (which is in most cases the biggest revenue pool for a grocer).

Our research suggests that fixing the basics, and then aiming to capture the weekly shopping trip, are the biggest opportunities for online grocers. Only when a retailer consistently delivers on these aspects can it gain consumers’ trust—and only then will consumers become willing to try out any innovative services it might offer.

What are the “basics”?

As part of our research, we conducted a series of focus groups among online grocery customers in four European countries: France, Germany, Spain, and the United Kingdom. We also went on “mystery shopping” expeditions to 40 grocery websites in 12 countries. We found that customers were generally dissatisfied with their online grocery experience. The nature and magnitude of the problems vary across markets, but overall, customers seemed to encounter frustrations at each stage of the shopping process.

Navigating the website and the mobile app. In a store, customers can easily see what’s on the shelves, find the items they want, and discover new products. They can touch and smell food items and read the fine print on product labels. Online shopping, by comparison, currently offers an impoverished experience. Before they are allowed even to browse, most sites first insist customers declare where they live. Customers then have to wait several seconds for web pages to load. To see the full assortment in any category, they often have to scroll through several pages. Product information is limited and often omits nutritional information and ingredients. The images can be misleading—for example, an image for a small pack might be identical to the image for a larger pack. Furthermore, many online grocers haven’t configured their website for all digital devices—that is, the site works well on a computer screen but not on a mobile phone or tablet—making it hard for consumers to browse or shop on the go.
Building the basket efficiently. A number of customers, particularly those who shop in smaller grocery formats, felt that building the basket online takes just as much time as walking around the store. The search function leaves much to be desired; one customer complained: “Why doesn’t it find answers if I slightly misspell something?” Allowing customers to quickly build a 50-item basket online—and order that same basket or a subset of it at a later date—is a basic requirement. Most online grocers now feature a “favourites list” of products previously purchased, which helps facilitate this process. Categories should be structured intuitively, the search function should work well, and mobile apps should enable shoppers to build their basket even when they’re not connected to the Internet. Moreover, baskets should be durable—that is, customers shouldn’t have to rebuild their entire basket if the site suddenly crashes, if their session times out, or when they switch devices (say, from a laptop to a smartphone).

Getting the best deals and saving money. A few customers in our focus groups had the impression that prices are higher online than in stores. Many more believed that shopping online would mean missing out on in-store promotions—and indeed, some had received vouchers that were valid only in stores. A few customers were put off by unclear pricing on websites. As one customer said, “Some apples are priced per piece and others per kilogram, which makes it impossible to figure out which is the best-value apple”. Grocers should pay particular attention to online pricing, because with price-comparison engines (such as mySupermarket and E.Leclerc’s price-checking app), higher online prices can affect consumers’ price perception of the entire business.

Receiving and unpacking the order. Especially when they’re paying what they consider to be high delivery fees, customers expect the items delivered to their homes to arrive at the agreed time and in good condition. Unfortunately this doesn’t always happen; late deliveries are common. Then, as they unpack their groceries, customers come across even more disappointment: receiving something other than what they ordered. Even in the more advanced markets, substitutions are a major frustration. In some of our mystery shops, 20 percent of the products we selected were unavailable. Another challenge is damaged products: many focus group participants told of crushed biscuits, bruised bananas, and leaky yoghurt pots. Fresh produce in particular is often problematic, as we discuss later in this chapter.

The postpurchase experience. Customers expect mistakes to be corrected quickly. Although many customers said they were impressed by the “no questions asked” policy of most retailers to provide refunds for damaged products, we heard many complaints about how long it takes to get through to customer service on the phone. (“By the time you get through to somebody, it’s cost you more than the product you wanted a refund on”. And customers were often disappointed at how little the retailer was willing to do to resolve issues and address complaints.

Such experiences make it clear that grocers haven’t yet gotten the basics right. Indeed, when we asked customers to rank a set of 30 online grocery features in order of desirability, the top 8 were all what we consider basic features (Exhibit 6). There were some variations by market—for example, retailers in the more mature markets of France and the United Kingdom tend to perform better on the basics, freeing customers to become interested in more advanced features such as “shop by recipe”—but, for the most part, customers just wanted basic features such as “create your list based on previous purchases” and “no unwanted substitutions.”
Retailers can execute the basics in many different ways. Take “no unwanted substitutions” as an example: some retailers, such as Piotr i Pawel (Poland), call the customer to ask if a substitute is acceptable before picking it. This is clearly a costly exercise and may be prohibitively expensive in markets where labour costs are higher. Other players, such as Ocado (UK) and MyTime.de (Germany), typically alert the customer to substitutions with a text message or an e-mail before delivering the order. Tesco sometimes sends a higher-quality product without charging extra, in hopes of appeasing customers who might otherwise be displeased with a substitution.
Keys to winning the weekly shopping trip

Performing well on the basics will help convince customers that they can shop online for stock-ups once or twice a month. But to convince customers to shop online every week, online grocers must excel in the fresh-food department and reduce delivery fees.

Fresh isn’t easy

One major concern among food shoppers is the quality of fresh products, particularly fruits and vegetables, meat, and fish. Most online grocery customers shop online to stock up on dry goods, but for their weekly food-shopping trips, they still go to grocery stores because they’d rather buy fresh food in person. Even in the UK, shoppers believed they would get products closer to expiry if they ordered them online than if they went to the store themselves. As one shopper told us, “When I buy fruit, I always lift the crate and pick from the crate underneath, which usually has fresher fruit. No online grocery picker is going to do that”. Many shoppers also expressed concern about how their goods would be transported. One focus group participant said, “I don’t know how long products will stay in the delivery van, so I don’t buy fresh products online”.

Our mystery-shopping expeditions gave us a vivid picture of why European consumers are wary of buying fresh products online. Out of our 40 test baskets, only 4 contained fresh products that could be described as “great”. Many of the items we received were unsatisfactory: mouldy fruit, cracked eggs, soft butter and ice cream (indicating problems with the cold chain), and hummus close to expiry.

Fresh categories represent a huge opportunity for online grocers that choose to carry them. If an online grocer wins a customer to its fresh-food department, it can win a far greater proportion of the customer’s grocery budget and drive more frequent orders. Excelling in the fresh categories is key to changing shopper habits, achieving scale, and radically improving the economics of online grocery.

Grocers can take several actions to increase the quality of their fresh food. For example, they could impose strict quality requirements on produce suppliers. They could pay special attention to training and hiring produce pickers, and reward online teams for positive customer feedback (one grocer grants bonuses of up to €800 per person per month). They could package produce in sturdy, moisture-absorbing cartons to protect it during transport. They could even allow customers to inspect produce: at Swiss online grocer LeShop’s click-and-collect locations, for instance, employees bring out fresh products in flat baskets rather than in bags so

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1 Not all online grocery propositions include fresh categories. Amazon’s Prime Pantry service, for instance, offers only nonperishable household essentials.
that the customer can examine them while the rest of her order is being loaded into her vehicle. Fresh products are stocked near the loading area, enabling employees to make any requested substitutions quickly.

**Delivery fees: How low should they go?**

Another factor hindering consumers from shopping online more frequently is the delivery fee. Many customers consider delivery fees too high, particularly relative to the size of their weekly basket. Retailers are understandably reluctant to reduce fees, which are already far lower than their delivery costs—but, from a customer-economics perspective, it may be a sensible move. A low delivery fee can attract new customers and win online sales away from competitors, thus yielding higher sales volumes and significant economies of scale. It may even boost offline sales by helping to establish a retailer’s reputation for value, which could have the knock-on effect of driving traffic into the retailer’s physical stores.

Some UK retailers have been experimenting with membership programmes or subscription schemes whereby customers pay a low monthly fee (approximately £6, roughly equivalent to the peak delivery fee for a single order) for an unlimited number of deliveries above a minimum value (between £25 and £40 depending on the retailer). Sainsbury’s and Tesco have even given coupons or vouchers to customers who didn’t place enough orders to make the subscription worthwhile. These and similar offers can have a strong impact on getting customers to be more loyal and shop more frequently. One grocer found that its membership programme converted a considerable proportion of customers into weekly shoppers, and that two-thirds of the additional revenue generated was incremental. Of course, the cost of servicing smaller baskets is higher. Retailers must therefore closely examine the financial implications of such programmes.

They should also weigh the trade-offs when it comes to delivery costs and their value proposition. One grocer found, for example, that offering customers one-hour delivery slots reduced capacity by 20 to 30 percent, but the company viewed it as a strategic imperative—a differentiator in a market where two-hour slots were standard—and so pushed ahead with it. Another found that express deliveries accounted for a small fraction of sales but a large portion of problems, and quickly discontinued the service.

**Expanding the proposition**

Online grocery is unlikely to ever command a 100 percent market share, as there will always be shopping needs that are better served through a physical store. Nevertheless, grocers have many opportunities to expand their online proposition (Exhibit 7). Once a retailer has mastered the basics and is maintaining a loyal customer base, it can explore ways to cater for additional shopping occasions and serve new customer segments online—while always, of course, keeping an eye on customer economics.

Some retailers are taking bold steps not only to eliminate irritants in the online shopping process but also to surprise and delight customers (see sidebar “How retailers are innovating today”, page 25). It remains to be seen which of these innovations will resonate with customers and potentially unlock scale in online grocery.
Fix delivery fees and fresh and improve economics.

Major stock-up

Regular shop

Special occasion

Top-up/emergency

Source: Focus groups

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**Exhibit 7. Expanding the offer could drive more scale and improve economics.**

<table>
<thead>
<tr>
<th>Shopping missions</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Priority 1</strong></td>
<td><strong>Priority 2</strong></td>
</tr>
<tr>
<td><strong>Full family</strong></td>
<td><strong>Foodie Franck</strong></td>
</tr>
<tr>
<td>Fix the basics</td>
<td>Fix delivery fees and fresh</td>
</tr>
<tr>
<td>Pick up on commute home</td>
<td>Broader range to suit specific dietary needs</td>
</tr>
</tbody>
</table>

But there are undoubtedly customer needs that aren’t currently being addressed. Retailers can expand their proposition by identifying and then meeting those needs.

To generate ideas for potential new online grocery propositions, we drew from prior research on consumer needs and conducted an ideation session with a diverse group of industry experts, including people from purchasing panels, advertising agencies, technology players, and retailers. We identified four value propositions, which we tested in depth in our focus groups (Exhibit 8).

**The ultimate food marketplace**

**The customer need.** Customers, for a variety of reasons, are increasingly looking for products that aren’t available in traditional supermarkets: immigrant communities want to buy ethnic foods, adventurous cooks look for exotic ingredients, and people with food intolerances or specific dietary needs seek substitute food options.
How retailers are innovating today

Retailers are expanding their proposition in a variety of ways. Examples include the following:

**Broader assortments.** Several grocers are offering a larger product range, allowing them to cater to more ethnic groups. Auchan has launched a separate site, Auchan Mieux Vivre, targeting organic shoppers. Ocado has created separate online stores for pet supplies (Fetch.co.uk) and kitchenware (Sizzle.co.uk); items ordered from these sites can be delivered with a customer’s grocery order.

**Innovations to help build the basket faster.** Advanced players are using filters that help customers quickly narrow down search results (for example, by sub-category, brand, or dietary preferences). Some are also displaying product recommendations based on a customer’s past orders and browsing history as well as overall shopping trends (for instance, “these items are often bought together”). Ocado’s Scan & Shop app lets shoppers add items to their basket by scanning barcodes. Ocado also has an Instant Shop function that tries to predict a customer’s entire basket based on previous purchases and time elapsed between orders. AmazonFresh is testing Amazon Dash, a handheld device that lets customers add products to their online basket either by scanning barcodes or simply by speaking into the device.

**Features that make the shopping process more engaging.** Some players are using visual innovations to make online shopping more pleasant and interesting. Customers on E.Leclerc’s site, for instance, can view 3-D rotating images of products. Other retailers are providing product-related content on their sites—in the form of recipes or magazines, for example—to inspire customers and give them more than just a transactional experience. Using Tesco’s Real Food recipe guide, customers can add all the ingredients for a recipe into their shopping cart with a single click.

**Convenient last-mile services.** Many UK grocers now offer one-hour delivery slots seven days a week. Amazon provides same-day delivery service in select cities. Linas Matkasse, the Swedish meal-kit provider, partnered with Volvo to test a service that delivers orders to the trunk of a customer’s parked car. In Germany, Rocket Internet recently launched ShopWings, a grocery-shopping service that replicates the model pioneered by US-based Instacart; in this model, “crowd sourced” personal shoppers buy groceries for customers from a range of grocers (Instacart’s partners include Whole Foods and Costco) and deliver them within two hours, using their own vehicles. Click-and-collect operators are offering longer business hours, shorter lead times, and more pickup locations—from delivery vans in train-station car parks to temperature-controlled lockers in railway stations, petrol stations, shopping centres, and even airports. Asda plans to roll out high-capacity “intelligent pods”, standalone units that allow customers to pick up their online orders at any time in a transaction that takes less than a minute.
### The proposition.

The “ultimate food marketplace” would offer the widest possible range of products online, including the basic range one would expect to find in a typical supermarket. Some products would be picked from a central warehouse, but the majority would be sourced using a marketplace model: third-party sellers would manage product and inventory information and be responsible for getting the product to the customer. The website would be geared toward efficiency, helping customers find products quickly and easily, and even making the services of a personal shopper available. The site would also provide inspiration through shop-in-shops (such as an India shop or a regional butcher), articles, recipes, and social tools (for instance, customers would be able to “follow” people whose recipes they like).

### Focus-group reaction.

Participants liked the idea of being able to buy hard-to-find products in one place and understood they would probably pay a premium for these. They insisted, however, that the standard supermarket products would need to be priced competitively. They also wanted a single delivery of all their purchases, rather than several deliveries from multiple suppliers.

### Exhibit 8. Four new value propositions were tested on focus groups.

<table>
<thead>
<tr>
<th>Customer need</th>
<th>New value propositions</th>
<th>Key characteristics</th>
</tr>
</thead>
</table>
| “I cannot find the products I want at my local supermarket”                  | **Ultimate food marketplace**<br>“If you can think of it, you can get it”              | • Extremely wide range of products available, including regional, ethnic, hard to find, special dietary needs, etc.  
• Higher price only for special products, rest at standard supermarket prices  
• Some separate deliveries for special products |
| “I want shopping made more convenient, but I really like experiencing the fresh product” | **Fresh & drive**<br>“Focus on the parts of food shopping you love”                    | • Basics ordered online and picked in the warehouse, delivered to your car at the drive-through  
• Fresh products selected in the store; inspiring in-store experience; feels like a farmers’ market with well-presented fresh products and information about product origins |
| “I want to spend less on food, but won’t compromise on quality”               | **E-discount**<br>“The best prices, without having to go to a discounter”             | • Reasonable discount (at least 20% less than standard supermarket prices)  
• Reduced assortment, eg, max 1–2 brands for most product categories, only 5 seasonal fruits offered  
• Cost-effective delivery options, eg, pay less for longer delivery window |
| “I waste too much food”<br>“I am trying to lose weight”<br>“I want someone to take the whole headache of planning away from me” | **Grocery as a service**<br>“Exactly what you need, when you need it, without having to plan” | • No need to spend time planning  
• Automatically suggests meal plans and predicts other products required (with algorithm that improves suggestions over time as it learns buying habits)  
• Provides the quantities you need, so less waste  
• Can be tailored to fulfill specific health or weight objectives  
• Weekly or twice-weekly delivery |

Source: Focus groups, ideation session
**Fresh & drive**

**The customer need.** Customers often shop in two modes: a transactional mode in which their goal is to shop as quickly as possible and a more emotional mode in which they want to browse, discover new products, and be inspired. Online grocery is conducive to the transactional mode, but not to the emotional mode. Many customers are in the latter mode when they shop for fresh food—they enjoy the experience of touching and smelling the products. And, as discussed earlier, many customers don’t trust retailers to choose fresh produce for them.

**The proposition.** “Fresh & drive” is a concept that effectively combines the shopping experience of a farmers’ market with the convenience of the French drive-through click-and-collect model. Shoppers would be able to touch, feel, smell, and choose fresh products in a beautifully presented store environment, but buy them at supermarket prices. Suppliers would be invited into the store to present their products, and cooking workshops would provide inspiration and education. Nonperishable basic items would be ordered quickly and efficiently online ahead of time. They would be stored in a warehouse next to the shop and loaded into the customer’s vehicle (perhaps with payment at the fresh counter triggering the message to the warehouse to get the order ready for collection).

**Focus-group reaction.** The concept garnered the most interest in France, where click-and-collect is already popular. In other markets, customers liked the idea but felt that they’d use it only once or twice a month; most other times, they would prefer to buy fresh food from local shops within walking distance rather than driving somewhere.

**E-discount**

**The customer need.** With discounters increasing their market share in most European countries, it’s clear that the discounter proposition—lower prices (but not lower-quality products), convenient locations, limited assortment—resonates strongly with customers. At present, online grocery is a more expensive proposition: it requires customers to pay supermarket prices plus a delivery charge. In the current economic environment, the proportion of customers looking for ways to spend less on food without compromising on quality is likely to increase.

**The proposition.** The e-discount concept is essentially an online grocery discounter, offering the best prices in the market (20 percent lower on average than supermarket prices) and a limited assortment (for example, 5 seasonal fruits offered rather than 30, and only one mainstream brand offered in each category). It would offer limited delivery options—perhaps wider delivery windows (four-hour rather than one-hour windows) or lead times of several days.

**Focus-group reaction.** Participants agreed that low prices would be a big draw, and many said they wouldn’t mind the smaller assortment in most categories so long as a leading brand would be available. However, they also highlighted the challenges that the concept would have to overcome: customers who
shop at discount stores said they tend to split their offline grocery purchases between a full-range supermarket and a discount store, and they wouldn’t want to do that online because it would mean having to pay delivery fees and wait at home for two separate deliveries.

**Grocery as a service**

**The customer need.** Some people find meal planning a hassle. They want to make the process easier, but not get stuck eating the same meals every week, and they want to be able to cook more dishes from scratch without spending hours doing it. Many consumers also have other goals such as eating more healthily or watching their weight. In addition, food waste is a major concern: in the average UK household, 19 percent of food is thrown away—the equivalent of about £470 a year.2

**The proposition.** Customers would need to spend much less time planning meals and shopping for groceries, because retailers would be able to predict their needs and automatically (with some ability to make adjustments as needed) drop off the right groceries—including a varied meal plan with recipes, as well as other household essentials—once or twice a week. Initially, customers would need to input some information, such as the size of their family, how often they eat at home, and dietary restrictions, but over time the retailer would employ sophisticated algorithms to learn the household’s needs and preferences and create personalised baskets. Customers would be able to delay or modify deliveries the day before. Groceries would become almost another utility service: something you sign up for and then forget about, but always receive in the precise quantities you require. In more advanced versions, the concept could help customers achieve specific life goals, such as eating more healthily, watching one’s weight, or reducing the household’s carbon footprint. In the future, this concept might benefit from “smart” devices in the home—such as refrigerators or washing machines—that could alert retailers when an item needs to be replenished.

**Focus-group reaction.** Many participants said this concept would be helpful in expanding the repertoire of dishes they cook and in dealing with dietary needs. However, they were not comfortable giving up complete control of their grocery shop. Others worried it would create even more stress, as they would have to update the retailer of every little change (such as “I didn’t eat my meal today because I ate out with friends”). They also worried about the model’s lack of spontaneity. But most of all, they expressed doubts as to whether retailers would actually be able to predict and deliver what they needed every week.

Clearly, each of the four propositions has elements that appeal to consumers, but each also has hurdles to overcome if it is to be entirely successful. As they seek to innovate, retailers should not just rely on research and intuition; they should instead constantly test and refine the most promising ideas. Some retailers may choose to incorporate new online concepts under their main banner (as Tesco has, for example, with The Foodhall at Tesco, which has elements of the “ultimate food marketplace”). Others may opt to introduce entirely new banners (as Auchan has with Arcimbo, fresh-food stores located next to Auchan Drive locations).

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But, again, before pouring their efforts into any innovations, retailers would be well advised to first focus on getting their basic online grocery proposition right.

In order for an online grocer to fix the basics, get its fresh offer right, and be able to expand the proposition, it must excel in operations. That’s not a trivial undertaking, as we discuss in the next chapter.
The operating model matters—but execution matters more

Online grocers face complex decisions about how to fulfil orders and how to solve the last-mile problem. But regardless of which operating model they choose, execution is key.

From where and how should online orders be fulfilled? Should it happen in stores, with store employees picking items off shelves and getting them ready for either pickup or delivery? Should retailers operate “dark stores”—separate facilities that are laid out like stores but dedicated entirely to fulfilling online orders? Or are automated warehouses the best solution? Then, once an order is ready, how exactly should it be transported to the customer’s home?

Picking-and-packing operations and last-mile services are the two main components of an online grocer’s operating model, and both represent major challenges for retailers. As is the case with nearly all business decisions, every option has its trade-offs.

Picking and packing: In stores or warehouses?

In evaluating the various options for picking and packing operations, retailers have a number of factors to consider, including capital expenditure, operating costs, capacity, and flexibility. In general, the least capex-intensive options also have the lowest capacity and productivity (Exhibit 9). Manual in-store picking requires as little as €50,000 per store in start-up costs or as much as €500,000, depending on the kinds of modifications made to the store, but each store typically has a capacity of just 1,000 orders per week and a low picking rate of about 80 items an hour. At the other end of the spectrum, a centralised, fully automated warehouse can fill as many as 200,000 orders per week and pick more than 200 items an hour, but requires high levels of capital expenditure—although the cost of building them is coming down rapidly as the technology matures. In the near future, we may see even higher levels of automation at warehouses; the entire picking process, for instance, could become automated using advanced robotics.

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3 This is the fully loaded picking rate (total number of items picked divided by total labour hours), as opposed to the number of items one employee would pick in an hour of uninterrupted picking.
**Exhibit 9. There is a range of options for picking operations.**

<table>
<thead>
<tr>
<th>Capex</th>
<th>Flexibility</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-store picking</td>
<td>Add capacity quickly</td>
<td>++</td>
</tr>
<tr>
<td>&quot;Dark store&quot;</td>
<td>Add capacity in small increments</td>
<td>+</td>
</tr>
<tr>
<td>Semi-automated warehouse</td>
<td>Change processes</td>
<td>-</td>
</tr>
<tr>
<td>Fully automated warehouse</td>
<td>Flex range</td>
<td>++</td>
</tr>
</tbody>
</table>

**Typical automation**

- **Put-away**
  - Automated put-away

- **Picking**
  - Conveyors move totes to pickers
  - "Goods-to-man" picking (for long-tail items)

- **Storage**
  - Conveyors take full totes

- **Loading of vans**
  - Conveyors take totes to van
  - Automated tote storage

**Source:** Images from Institute of Grocery Distribution, Lacquey, and Kiva Systems
Any of these picking models can become profitable, but the minimum scale varies for each. In-store picking can pay off quickly: just a few hundred online orders per week, assuming they are incremental sales rather than a cannibalisation of in-store sales, could generate net profits. Small and medium-size warehouses, because of their high fixed costs, would need many more online orders before the investment generates and sustains meaningful profitability. A large, fully automated warehouse wouldn’t break even until online orders reach approximately 30,000 orders per week—but as online orders increase, so will profitability (Exhibit 10).

Exhibit 10. The minimum efficient scale varies according to picking model.

It’s important to note that the cost profiles of different picking models are rapidly changing. Technological advances have made it possible to introduce full automation into smaller warehouses. Ocado, for example, has developed a modular way of building new warehouse capacity so that it can be added incrementally, in line with rising demand. Tesco’s warehouse at Erith in London has a capacity of just 28,000 orders per week (less than 15 percent of the capacity of Ocado’s first warehouse), but is fully automated and has picking rates on par with much bigger warehouses.
Most grocers choose, at least initially, to have employees manually pick orders from store shelves. It’s a sensible choice: in-store picking is relatively easy to launch, requires little capital expenditure, and is a flexible solution. It allows retailers to start slowly and add capacity as needed, and if one store becomes temporarily nonoperational for any reason, online orders can be fulfilled from another store. In-store picking also enables grocers to serve customers in less densely populated regions. And, as mentioned earlier, it effectively serves as a daily feedback mechanism by highlighting gaps in the store’s inventory, thus forcing operational improvements in on-shelf availability and planogram discipline.

But, like every picking model, it has its drawbacks, and grocers shouldn’t underestimate the challenges involved in getting it right (see sidebar “Best practices in store picking”, page 34). In-store picking can’t be done in small stores—there’s not enough inventory, the assortment is limited, the aisles are too narrow to accommodate a picking trolley, and there’s no space for buffering orders in the backroom. It is also ill suited to stores that are already congested: adding pickers to crowded aisles could considerably degrade the experience of in-store shoppers. For this reason, in-store picking becomes impractical when online sales start to account for a substantial part of total sales. The precise figure depends on how crowded the stores are, whether night replenishment and early-morning picking are possible, and other factors—but in general the maximum viable capacity dedicated to in-store picking could be as high as 25 percent of total store sales in large out-of-town stores. On the other hand, crowded stores, like those found in many town centres, may already be operating at sales densities such that any online operation would put unwelcome pressure on the in-store customer experience (which is why Tesco has been building its picking warehouses in and around London).

An additional challenge of in-store picking is a dispersed workforce: pickers are scattered across hundreds of stores instead of in a few warehouses, and the pickers typically report to store managers rather than to the online team. Finally, the scalability of in-store picking is limited: if the retailer decides to use a different picking model later—whether to increase capacity, improve productivity levels, or offer a different assortment online than it does in stores—it will need to build an entirely new operating system and infrastructure.

A retailer could decide to build a warehouse from the start, without first establishing in-store picking, so that it could benefit from high capacity and productivity and pick from a much larger assortment. Retailers most likely to take this path include pure plays, retailers with stores ill-suited to in-store picking, and incumbents looking to build their online presence in areas where they don’t have stores. But they will have to accept that the warehouse will be operating below capacity for some time; it could take a year or more for demand to ramp up.

The cost profiles of different picking models are rapidly changing. Technological advances have made it possible to introduce full automation into smaller warehouses.
Best practices in store picking

Our research revealed that two retailers can employ the same picking model yet achieve disparate results—as much as a 4 percent difference in trading margin—due entirely to the specific methods and tools used for picking. Seemingly small details in execution can make the difference between a profitable online grocery operation and a money-losing one. For instance, the size, width, and manoeuvrability of the trolley cart will influence whether pickers stay with their carts or walk away from them as they move around the store, which can fundamentally impact their picking rates and accuracy.

Optimised practices can affect picking rates and accuracy.

### Best observed picking speed

<table>
<thead>
<tr>
<th>Items/hour</th>
<th>Player 1</th>
<th>Player 2</th>
<th>Player 3</th>
<th>Player 4</th>
<th>Player 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>150</td>
<td>130</td>
<td>120</td>
<td>100</td>
<td>90</td>
</tr>
</tbody>
</table>

+70%

Impact on trading margin = +4%

### Examples of best practices

- **Picking carried out 0600–1200 in 24-hour stores**
- **Pickers use manoeuvrable carts and steady motion through aisles**
- **Zone-based multi-order picking, with multitemperature storage of totes**
- **Screen gives picker clear guidance, specifying location of and appropriate substitutes for each item**
- **Computer signals to managers if picker is too slow**
- **Stable workforce with suitable profiles for role**

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A few of the best practices we’ve observed require advanced IT systems and tools: for example, a screen that tells pickers exactly where an item is located on the shelves. But in our experience, a retailer’s most important decisions when it comes to implementing in-store picking are workforce decisions—and this is particularly true for retailers that don’t have sophisticated IT systems to rely on. At one retailer, we found that...
the average pick rate at the top 10 percent of stores was three times the average pick rate at the bottom 10 percent of stores. The disparity was due primarily to supervisors’ practices (which affected pickers’ general attitudes) and performance management (the metrics, techniques, and incentives used to evaluate and motivate employees). One effective incentive is to credit online sales to the pickers’ stores and to put greater emphasis on online sales in store-manager performance reviews.

Retailers must also be able to hire and retain competent pickers. Ideally, the picking staff will be selected from a stable workforce of full-time employees who are knowledgeable about the products. Some retailers mistakenly believe that muscular employees who can push carts and lift heavy items make the best pickers; the reality is that product knowledge matters much more than physical strength when it comes to picking rates and accuracy. A few grocers have found that housewives tend to make good pickers because they typically know the products, are careful in the specific items they pick, and can make appropriate substitutions for unavailable products.
Solving the last-mile problem

The second main component of the operating model is the last-mile solution, which is typically (in the case of home delivery) an online grocer’s single biggest operating cost. The last-mile problem presents a retailer with a number of important choices, each of which has implications for infrastructure, logistics, and staffing: Should the retailer offer a delivery service at all, or only click-and-collect? If the retailer decides to offer delivery, should it use its own staff and vehicles, or outsource the delivery process? How will it keep perishable products at the right temperatures during transport? To what locations should it deliver orders—only to customers’ homes, or to workplaces, pickup counters in stores, lockers in train stations, and other places as well?

Delivery

As mentioned in Chapter 3, delivery economics have proven to be extremely challenging, with the majority of grocers that have substantial online operations running their own fleet of vans. Grocers may need to think laterally to fundamentally change delivery economics—that is, they may need to collaborate with other companies within or outside the grocery industry, even if it means giving up full control of the interaction with the customer. For example, LeShop—the Swiss online grocer that is now part of Migros—outsources delivery to the Swiss postal service. LeShop benefits from a flexible, scalable, and reliable logistics network without having to make a large capital outlay; the postal service is able to better utilise van capacity in the afternoons and evenings.

Another potential solution involves pooled deliveries, in which one player or a third-party logistics provider makes deliveries for several grocers, thus avoiding the inefficiencies of having many half-filled vans from different grocers driving to the same neighbourhoods. AmazonFresh, for instance, uses a variant of this concept and delivers products sold by local speciality retailers. Other solutions might include a milkman-type service that delivers to a neighbourhood at the same time each day or each week; or crowdsourced deliveries, whereby retailers either pay prescreened drivers to use their own vehicles to deliver groceries (the model used by US-based Instacart) or incentivise customers who are collecting their online orders to pick up their neighbours’ orders as well.

Click-and-collect

An alternative to home delivery, of course, is the click-and-collect model, which is the dominant model in France. In the UK, where it was launched a lot later, it accounts for only a small (but growing) fraction of online sales. Click-and-collect is an attractive model for some customers: lead times between order and collection tend to be shorter because van capacity isn’t a constraint; pickup windows can be quite long, providing more flexibility; it doesn’t require waiting at home for a delivery; and in most cases there is no collection fee.

At scale, click-and-collect can have far better economics than home delivery, even after accounting for cannibalised sales, which are in turn typically higher than for home delivery. It also provides retailers with the option of having mobile or temporary pickup locations. For example, a number of grocers park vans in railway-station car parks for only a few hours each day, allowing commuters to pick up their grocery orders on their way home (see sidebar “Best practices in last-mile operations”, page 38).
For click-and-collect from lockers, one challenge that retailers face is the need to balance lead times with the costs of transporting goods to the lockers (larger truck loads are more efficient but obviously require longer lead times). Another is the need to balance the length of the pickup time window (longer pickup windows would obviously be more convenient for customers) with the number of orders that the lockers can hold. The “pods” that Asda plans to roll out—which are high-capacity, unmanned, temperature-controlled units—may present an ideal solution, in that they will allow customers to pick up their online orders at any time.

**Three steps to selecting an operating model**

Retailers must of course tailor their operating models to their business. Two retailers in the same market shouldn’t necessarily have the same model. To choose the right operating model, a retailer can take a three-step approach.

The first step is to determine its strategic intent and level of ambition for e-commerce. One retailer might be looking to gain market share by expanding its geographic reach, whereas another might want to limit its exposure to online grocery and hence aspire only to protect its market share. Strategic intent will influence how aggressively a retailer invests in e-commerce.
Best practices in last-mile operations

In last-mile services, too, specific operational practices can have an enormous impact on economics. Among retailers that offer home delivery, for example, the most efficient ones make almost twice as many van drops per week than the least-efficient players, which in our simulation translated to 4 percent difference in trading margin.

The best practices we’ve observed in retailers’ last-mile operations include the following:

**Use of data to estimate driving and unloading times.** Advanced players make use of real-time data on traffic patterns and road congestion to plan optimal routes for their delivery vehicles. They also systematically ask customers up front for information that will help them forecast unloading time: Does the customer live in a house easily accessible from the street, or in a fourth-floor flat in a building without an elevator? Will the delivery van need to go through a security gate? Are there parking spots nearby? Using this type of information, grocers can schedule and plan for deliveries more precisely.

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**Examples of best practices**

**Automated racks and chutes bring totes to vehicle door**

**Location of totes in van predetermined by system and printed out for driver unloading**

**Tailored doorstep time forecast based on residence type (from customer registration)**

**Side-loading van to minimise time spent unloading**

**GPS tracking of vans automatically compared to scheduled routes and times; discussed with drivers daily/weekly**

**Proactive e-mails, app alerts, and text messages minimise referrals to call centres and remind customers to be home**

---

**Van drops/week**

<table>
<thead>
<tr>
<th>Player</th>
<th>Drops/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player 1</td>
<td>160</td>
</tr>
<tr>
<td>Player 2</td>
<td>145</td>
</tr>
<tr>
<td>Player 3</td>
<td>105</td>
</tr>
<tr>
<td>Player 4</td>
<td>90</td>
</tr>
<tr>
<td>Player 5</td>
<td>85</td>
</tr>
</tbody>
</table>

**Impact on trading margin = +4%**

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**Optimised practices can make a big difference in last-mile services.**
Vehicle design and temperature control. Leading retailers make careful decisions about whether to use active cooling (refrigerated delivery vans), as the large UK online grocers do, or passive cooling (packaging that keeps products cold, such as frozen gel packs in thermal bags). Active cooling more reliably keeps products at the right temperature, but requires significant capital investment. It also limits the flexibility of the van space because refrigeration takes up a lot of room. Passive cooling doesn’t require specially designed vans and thus makes it easier to add capacity and outsource the delivery service. Also, since it can keep products cold for a few hours, it allows grocers to make unattended deliveries in some neighbourhoods — giving both the retailer and customers more flexibility. However, maintaining the desired temperatures is more challenging; retailers find they sometimes need to increase the level of insulation (by double-bagging) or add more cooling elements on very hot days.

Workforce quality. The delivery person is the face of a retailer’s online grocery operation. Leading online grocers are therefore selective in hiring delivery people: aside from being skilled drivers who are strong enough to lift heavy packages, delivery staff must be service-oriented individuals who will handle groceries with care and who will inspire trust in customers.

Collection process. Customers picking up their orders should be able to do so in a matter of minutes. The best drive-through operators ensure that customers don’t have to get out of their cars at all: swiping a credit card at the car-park gate triggers the signal to prepare their order. Customers then pick up their order at the closest available parking bay to the warehouse exit. One grocer, through continual process optimisation and a clear escalation process for when a customer has been waiting too long, has achieved an average pickup time of two-and-a-half minutes.
The next step involves studying the economics of the various operating models and the trade-offs inherent in each; evaluating these models in light of consumer demand, the retailer’s assets and business context (especially its physical store network, ownership model, and financial position), and the market structure; and selecting an operating model for the next two to three years. A grocer that owns hundreds of medium-size supermarkets spread out across a country and has plenty of cash to invest will make different choices from a cash-poor grocer with large, mostly franchised hypermarkets concentrated in one region. A retailer may also find that it needs to use different models in different locations, although it shouldn’t underestimate the complexity of such an approach.

The third step is to try to project what the retailer’s ideal operating model will be in five years, taking into consideration how the market and the retailer’s position are likely to evolve. For example, a retailer may decide to start with in-store picking to get an offer to the market quickly and avoid losing customers, while planning to build a semi-automated warehouse in a few years. Retailers that choose this phased approach will need to decide whether to stick to in-store picking for as long as possible—that is, until their stores no longer have capacity—or shift to warehouses as soon as certain online sales targets are met.

Choosing an operating model and excelling in its execution are considerable challenges for any retailer. It takes focus, discipline, and flexibility to get it right. As we discuss in the final chapter, retailers must be committed to online grocery for the long term while being agile and responsive in the short term.
The winning formula: Long-term commitment, short-term refinements

Success in online grocery requires significant and patient investment accompanied by accelerated action. Retailers should build organisations capable of managing both.

As discussed in Chapter 1, customer economics clearly show that e-commerce will play a vital role in the future profitability of grocers. A half-hearted attempt at online grocery therefore doesn’t make strategic sense for retailers; they can’t expect to build a high-performing operation or drive sufficient scale if they treat online grocery as just a minor experiment.

The retailers with the best chances for online grocery success are those that fully commit to e-commerce and view it as a long-term strategic priority, which means they devote considerable resources to it without expecting immediate returns. But, in parallel with this long-term perspective, best-practice retailers also demonstrate short-term responsiveness and a bias towards quick action. They recognise that keeping up with the rapid pace of change in the digital world requires continual testing, learning, and refining.

In other words, the successful online grocer of the future will be one that can invest patiently for years, but also take bold action rapidly. To cultivate this two-speed mentality across its entire organisation, a retailer will need three enablers: strong support from leadership, an autonomous online team, and agile IT systems and processes.

Investing significantly and patiently...

Retailers must come to terms with the fact that doing online grocery right will require major investment. Creating a compelling e-commerce offer, backing it up with well-oiled operations, and rolling out the service across markets won’t be cheap—and leaders should be fully aware that the investment won’t pay off right away.

Also, grocery retailers would do well to get started early, before competitors make decisive moves. In many respects, online grocery is harder to get right than other e-commerce categories: the front end must allow customers to easily build a basket of 50 or more items, picking-and-packing operations and last-mile services are complex and often involve changing practices across the store network, and everything needs to be achieved on very thin margins. In addition, the talent pool is fairly small and few “plug-and-play” technologies are available. Given these challenges, mastering online grocery takes years rather than months.

The costs of starting and running an online business will, of course, vary by retailer and by market. If a grocer is playing catch-up in one of the more advanced markets such as France or the United Kingdom, it may need to undertake a fast and aggressive rollout, which could necessitate entering into a partnership—similar to the one Morrisons has with Ocado in the United Kingdom. On the other hand, in countries in which latent demand is relatively low, retailers can first refine their offer and perfect their execution within a limited geographic region, such as one or two cities or metropolitan areas. This approach helps a retailer limit its risk, understand
customer demand, hone the requisite skills, and test the assumptions in its business plan without the level of investment needed for a national rollout.

Nevertheless, a retailer should strive to give customers a great experience the first time, and every time, they use the service. Customers will expect the website and back-end operations to be of the same calibre as if the retailer were running e-commerce nationwide. Therefore, even for a smaller-scale launch, a retailer must be prepared to make a sizeable investment in online grocery—on a par with what it would cost to open a new supermarket. And it must accept that, for a time, its investment and fixed costs will be disproportionate to the size of its online business. Protecting the online budget, perhaps by ring-fencing it, may be a smart move.

Taking a long-term view is obviously challenging in an environment fixated on quarterly earnings, but some online grocery players—notably Amazon and Ocado—have attracted investors who seem to be comfortable with the idea of giving up some current profitability in order to achieve much greater scale in the future.

...While acting and reacting quickly

At the best retailers, this “long-termism” is complemented by a certain kind of “short-termism”: even as the organisation looks ahead to long-term profitability, it keeps itself nimble enough to react to short-term market developments.

The online world moves at a much faster pace than traditional retail. Consider the innovations that have become mainstream in the UK online grocery market within the past year or two: mobile apps, delivery subscriptions, and click-and-collect lockers, to name just a few. Keeping up in this rapidly changing market typically requires a different culture from that of traditional retailers. Internet companies are constantly conducting tests, learning from them, and refining their products and services; online grocers need to do the same. Amazon founder and CEO Jeff Bezos has said that “70 percent of the invention we do focuses on slightly improving a process. That incremental invention is a huge part of what makes Amazon tick”.

Organisational enablers

To maintain both a long-term perspective and a short-term test-and-learn mind-set, the organisation must have the unwavering support of the CEO and top management, an autonomous online team, and agile IT systems and processes.

Company leaders as online champions

Because online grocery’s market share remains in the single digits in every country, it’s unsurprising that retail CEOs and top-management teams continue to devote most of their attention to the physical store network. They regularly invest in store remodels and retrofits; they frequently visit stores—both their own and competitors’; they discuss stores extensively at management and board meetings; they make sure to shop at stores to get a real-world sense of the customer’s shopping experience.

Meanwhile, the online channel is often overlooked. We’ve found that some board members and senior executives have never even been to—much less bought anything from—their own company’s website or a competitor’s.

The most forward-thinking grocery CEOs and top executives visibly lead and champion their company’s online efforts. They treat their online operation as an important part of their brand and customer value proposition. They give their website and mobile apps as much attention as a flagship store. We would argue that, in a world in which a retailer’s fiercest competitors could be technology companies, every retail CEO should develop a keen grasp of e-commerce and technology.

At best-practice retailers, the CEO communicates a long-term vision to the entire organisation, framing online grocery as a strategic necessity, not an add-on. To address concerns about cannibalisation and to prevent internal conflicts, the CEO and top team clearly lay out roles and responsibilities, speak openly about both the channel economics and the customer economics of the online space, and ensure that the successes of the online business are shared with the stores (for example, by rewarding a store for revenue generated from online purchases by customers in its catchment area). Company leaders “role model” behaviours that demonstrate to the entire organisation the importance of the online channel: for instance, they regularly use the website and apps, visit click-and-collect locations, and even occasionally accompany drivers in making home deliveries.

An autonomous online team

One critical task and challenge for the CEO will be to create a top-notch cross-functional online team focused exclusively on making the online business a success. The talent and skills of this team won’t resemble the ones that retailers have traditionally sought. Some retailers therefore choose to give the online team its own pay structures and incentive systems, and the autonomy to move at its own pace.

Although entire retail organisations are becoming more digitally oriented and retailers aim to provide a seamless “omnichannel” experience, we’ve found that full integration between the store-based and online teams is likely to stifle the online business and slow decision making, especially in the early days when the e-commerce operation is just getting off the ground. In the most successful retail organisations, integration doesn’t happen by default; instead it is pursued only in areas where true synergies exist—for example, in product sourcing or brand marketing.
That said, the online unit should work closely with the rest of the organisation. This collaboration is essential, particularly for retailers that use in-store picking. To foster collaboration, retailers use a variety of techniques, such as encouraging high-performing employees to rotate through both the store-based and online businesses, or overweighting performance metrics related to the online business in store-manager evaluations. As the online business gains scale, there may be a case for integrating it more fully into the main business.

**Agile IT systems and processes**

Retailers rely on stable, secure back-end IT systems to manage their large and growing amounts of transactional and customer data. These systems, which are typically shared across the entire enterprise, are usually upgraded once or twice a year as part of a companywide IT plan. But the systems needed by the online grocery business shouldn’t be locked into a centralised two-year IT road map and 6- to 12-month release cycles. That pace is simply too slow.

Instead, the online business would benefit from using “agile development” methods, overseen by cross-functional teams. In such cases, the core systems for online grocery—including the website itself, mobile apps, and systems for demand forecasting, picking, labour scheduling, and delivery routing—are built with flexibility in mind, and can be adjusted quickly and often in response to changes in the market. Customer-facing technologies and applications in particular should have much shorter release cycles than legacy IT systems—every week or two, rather than every 6 to 12 months. Ideally, they will be highly modular and configurable so that modifications can be made in-house, without extensive involvement from software vendors.

In essence, retailers would be well advised to create a two-speed IT architecture: one, for legacy systems, that can proceed at a more measured pace, and another that enables the rapid response that online grocery requires.

Technology’s role in retail will only get bigger. Some retailers, recognising this fact, have hired people dedicated entirely to developing and keeping track of new technologies and solutions, identifying the most valuable ones, and accelerating their adoption across the organisation, sometimes by acquiring start-ups. Being slow to adopt game-changing technologies like cloud computing, for instance, can place retailers at a massive disadvantage to competitors by forcing them to make a far greater capital outlay and giving them less flexibility to scale up. The largest grocers have set up large dedicated teams to help them stay on top of new technology: Walmart Labs and Tesco Labs are two examples.

Balancing a long-term perspective with short-term action is critical to success in online grocery. Leading retailers are making major investments today in order to build a strong foundation for tomorrow. But they are also continually looking for—and speedily implementing—enhancements and innovations that will help them better meet customer needs and meaningfully improve the economics of the business.
There’s no question that traditional grocery retailers are well positioned to win in online grocery. After all, they already have many of the required assets and know-how that most start-ups or nongrocery players don’t—such as buying power, supplier relationships, trusted and well-known brands that consumers readily associate with food retailing, expertise in sourcing grocery products, and the ability to run large operations efficiently.

That said, online grocery is in many ways a whole new ball game, with unfamiliar rules, new rivals, and a fast-changing playing field. As we’ve shown repeatedly in this report, building the capabilities to become competitive hasn’t come quickly or easily to any grocer. Retailers need the time to experiment, to make mistakes and learn from them, and to hone the new and unfamiliar skills that e-commerce requires them to master.

In most of Europe, online grocery is still in its early days. But there’s no time to lose. The customer economics tell a clear story: online grocery will matter greatly to profitability. Grocers that have the foresight to get into the game today will be best equipped to win when online grocery takes off—which, in several markets, could be very soon indeed.
To build a fact base for this report, we used a number of different research techniques.

In Chapter 1, we present a financial model for online grocery. Our data sources included company annual reports, publicly available financial documents, local press searches, third-party research firms, and consumer research conducted in 2013. Working closely with industry experts and retail executives, we analyzed the channel economics as well as the customer economics of online grocery.

To create the “spider graphs” in Chapter 2, we studied a range of indicators that influence how online grocery might develop in each of 12 European countries. We explain the indicators in the table on page 48.

To understand the customer experience in online grocery, we worked with research agency Sorgem IMR to conduct a total of 12 focus groups in four countries: France, Germany, Spain, and the United Kingdom. The focus-group participants—eight in each group—were a mix of genders and income levels. All had purchased groceries online at least once. We also went on mystery-shopping expeditions on 40 of the largest and best-known online grocery websites in 12 European countries. On each website, we built a basket worth approximately €40 (more if the minimum basket size was bigger) that included dairy, fresh fruits and vegetables, frozen products, eggs, meat and fish, and fresh bread. We assessed the online experience (including ease of use, clarity of product descriptions, and the time it took to assemble a basket and place an order), the delivery/pickup experience (noting, for example, the timeliness of the delivery and the helpfulness of the staff), and the quality of the products.

To come up with the four new value propositions in Chapter 3, we drew on insights generated from the initial France and UK focus groups, as well as prior research on consumer needs and preferences. We held a day-long ideation session with a diverse group of industry experts, including executives from purchasing panels, advertising agencies, technology players, and retailers. Then, we further refined the value propositions by testing them with focus groups in Germany and Spain, as well as additional focus groups in France and the UK.

We sought to deepen our understanding of best practices in online grocery operations by visiting a number of stores where in-store picking was being done. We observed and compared picking practices, paying attention to specific process steps and techniques as well as to picking rates. We also followed delivery vans, observed their routes, and recorded the number of deliveries they made per hour.

Finally, our research included interviews and discussions with CCRRCE members, retail and consumer experts, and current and former online grocery executives—all of whom gave us insights and perspectives regarding best practices and lessons learned in online grocery.
### Key indicators

#### Latent demand

<table>
<thead>
<tr>
<th>Definition</th>
<th>Expressed in</th>
<th>Source</th>
<th>Spidergraph</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of double-income households</td>
<td>% households with 2 incomes</td>
<td>% households</td>
<td>Eurostat</td>
<td>Double-income households are typically richer and more time constrained, hence value online grocery more</td>
</tr>
<tr>
<td>Share of basket for stock-up</td>
<td>% shopping trips with &gt;10 categories in the basket</td>
<td>% shopping trips</td>
<td>Europanel</td>
<td>The higher the stock-up rate, the easier it is for consumers to translate their current shopping habits online</td>
</tr>
<tr>
<td>Grocery-basket size</td>
<td>Average amount spent on each grocery trip</td>
<td>€ per trip</td>
<td>Europanel</td>
<td>Larger basket size suggests more willingness to shop online (as delivery fee will be spread over a larger basket)</td>
</tr>
<tr>
<td>Density of grocery space</td>
<td>Number of grocery-store square meters per inhabitant</td>
<td>Grocery square meters per inhabitant</td>
<td>Planet Retail; The Economist Intelligence Unit Ltd. for population</td>
<td>Low density indicates access to stores is difficult and may favour online grocery</td>
</tr>
<tr>
<td>Online grocery share of food retail</td>
<td>Market share of online grocery over total grocery sales</td>
<td>% sales over total grocery sales</td>
<td>Forrester Research, Inc.; Euromonitor International; local sources*</td>
<td>High share of spend in online grocery today is solid indicator of high future demand</td>
</tr>
</tbody>
</table>

#### Customer-adoption drivers

<table>
<thead>
<tr>
<th>Broadband penetration</th>
<th>Customer access to broadband</th>
<th>% people with broadband access</th>
<th>Analysys Mason</th>
<th>Access to broadband improves user experience on grocery websites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smartphone and tablet penetration</td>
<td>Customer ownership of smartphone or tablet</td>
<td>% people owning a smartphone (S) or tablet (T); average of the 2 scores</td>
<td>Strategy Analytics</td>
<td>High device penetration makes it easier to access apps, mobile sites, and websites</td>
</tr>
<tr>
<td>Online share of retail spend</td>
<td>Market share of e-commerce over total retail (including services)</td>
<td>% sales over total retail sales</td>
<td>Forrester Research, Inc.</td>
<td>High share suggests people are comfortable shopping online more generally (even if not yet shopping for food)</td>
</tr>
<tr>
<td>Online retail spend per household</td>
<td>Consumer spend online for e-commerce</td>
<td>€ per household per year</td>
<td>Euromonitor International</td>
<td>High figure suggests people are comfortable shopping online more generally (even if not yet shopping for food)</td>
</tr>
</tbody>
</table>
## Grocery-retail characteristics

<table>
<thead>
<tr>
<th>Definition</th>
<th>Expressed in</th>
<th>Source</th>
<th>Spidergraph</th>
<th>Rationale</th>
</tr>
</thead>
</table>
| **Amazon presence** | Presence of Amazon in the country (Internet sales, supply chain) | € million sales + supply-chain (SC) presence | Press search; Euromonitor International for sales | 1. Sales ≤€100  
2. Sales >€100  
3. Sales >€200  
4. Sales >€400+SC  
5. Sales >€1,000+SC  
6. Sales >€3,000+SC | Strong Amazon presence makes threat of AmazonFresh entry more imminent, which might catalyse the market |
| **Discounter penetration** | Market share of discounters | % share | Planet Retail | 1. >30%  
2. >20–30%  
3. >15–20%  
4. >10–15%  
5. >5–10%  
6. ≤5% | Heavy discounter presence suggests less pressure to move online (as discounters tend not to move online fast) |
| **Online presence of top 5 grocers** | Number of top 5 players with online grocery presence | Number of top 5 players with online grocery presence | Local sources*; Planet Retail | 1. 0 players  
2. 1 player  
3. 2 players  
4. 3 players  
5. 4 players  
6. 5 players | Heavy online presence of largest grocery players puts pressure on rest of industry to follow suit |
| **Market concentration** | Combined market share of top 5 grocers in country | % sales of top 5 grocers over total grocery sales | Planet Retail | 1. ≤30%  
2. 31–40%  
3. 41–50%  
4. 51–60%  
5. 61–70%  
6. >70% | In more concentrated markets, a few large players will likely make online moves to try and capture more share |

### Economic viability

<table>
<thead>
<tr>
<th>Definition</th>
<th>Expressed in</th>
<th>Source</th>
<th>Spidergraph</th>
<th>Rationale</th>
</tr>
</thead>
</table>
| **Retailer margin for packaged goods** | Average gross margin in packaged goods (retail price minus suppliers price, minus value-added tax) | % margin | Euromonitor International | 1. ≤6.0%  
2. 6.1–7.9%  
3. 8.0–9.9%  
4. 10.0–11.9%  
5. 12.0–13.9%  
6. >13.9% | A higher margin provides more headroom for doing online grocery |
| **Degree of urbanisation** | % of the population living in cities with 100,000+ inhabitants | % people living in cities with 100,000+ inhabitants | Eurostat | 1. ≤15%  
2. 15.1–20%  
3. 20.1–25%  
4. 25.1–30%  
5. 30.1–35%  
6. >35% | High density reduces last-mile delivery costs and so improves home-delivery economics (low density favours click-and-collect) |
| **Labour costs** | Average salary for low-wage employee | € per hour | Local sources*; press search | 1. >€11  
2. €9.1–€11  
3. €7.1–€9  
4. €5.1–€7  
5. €3.1–€5  
6. ≤€3.0 | Low labour costs will reduce picking and last-mile costs |

*Examples of local sources are Distrifood Nieuwsblad in the Netherlands, Alimarket in Spain, and the Swedish Digital Commerce association in Sweden.*