OLIVER WYMAN

FMI
THE VOICE OF FOOD RETAIL
Feeding Families Enriching Lives

BOARDROOM

Volume 4

Foreword

Welcome to the fourth edition of *Boardroom*, the annual journal from the Food Marketing Institute (FMI) and Oliver Wyman. This collection of articles offers unique and timely insights to help senior food industry executives shape strategies and improve performance throughout their organizations.

The food industry is no stranger to change and disruption. Over the past 25 years, existential threats to the industry now feel like business as usual, with food industry leaders consistently refining their operating models and enhancing their ability to serve customers. Change must be embraced to survive in today's world.

And yet, something feels different about the current trends as new technologies reshape how consumers shop. The rapid pace of technological innovation means that the number of new players in the retail value chain has greatly expanded. The erratic nature of this latest change is layered on top of the persistent changes that retailers have always faced. The result is even more uncertainty. For retailers focused on processes for making their businesses successful each day, it can sometimes be difficult to spend the time planning for tomorrow.

Last year, FMI introduced *Emerging Issues* to support retailers with their long-range planning. By bringing together a cohesive set of insights on the challenges retailers will face over the coming few years, we hope to make it easier for retailers and their trading partners to plan for their collective and successful future.

In this 2019 edition, we start with a forward-looking piece on *The Future of Retail*, delving into how consumer preferences will further disrupt the retail industry and the opportunities that exist with this shift towards an information age. Then we present *Emerging New Consumerism*, discussing how consumer tastes continue to evolve and what it will take for FMI's membership to meet those demands. *Workforce* and *Artificial intelligence* explore how members can make use of their most important assets to deliver on those demands. The *New Marketplace* reviews the requirements of changing consumer demands, as retailers must adapt the physical store to better suit customers who will increasingly avail themselves of the plethora of channels for food purchases. Finally, *Food Production* investigates what these changes, coupled with the increased globalization and localization of the supply chain, mean for how the industry provides high quality and safe products in a sustainable way.

We hope you find the insights shared in this year's *Boardroom* helpful as you make and execute your plans throughout 2019 and beyond. FMI will be sharing additional expertise on these issues and will continue to support the membership in addressing these and other ongoing changes through advocacy and member collaboration. We welcome your participation and feedback to ensure that we have done everything we can to help each member succeed in an era of constant change and disruption.

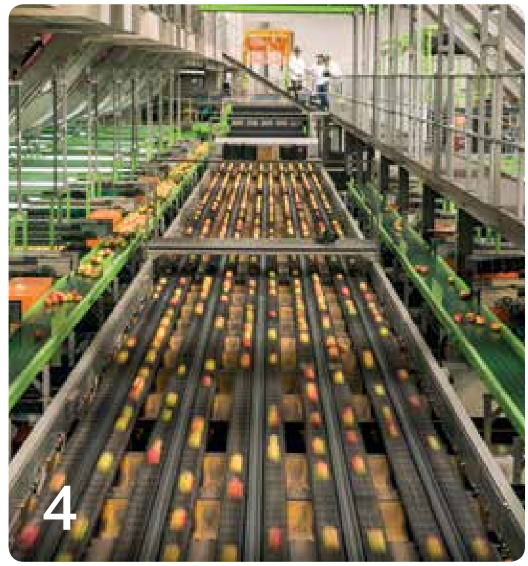
Leslie G. Sarasin

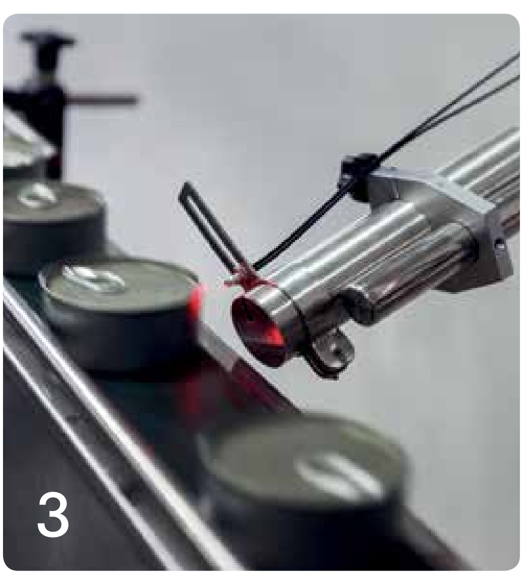
President and Chief Executive Officer
Food Marketing Institute

Mike Matheis

Global Industry Association Lead
Oliver Wyman

Contents





FUTURE OF RETAIL

Nick Harrison

Frederic Thomas-Dupuis

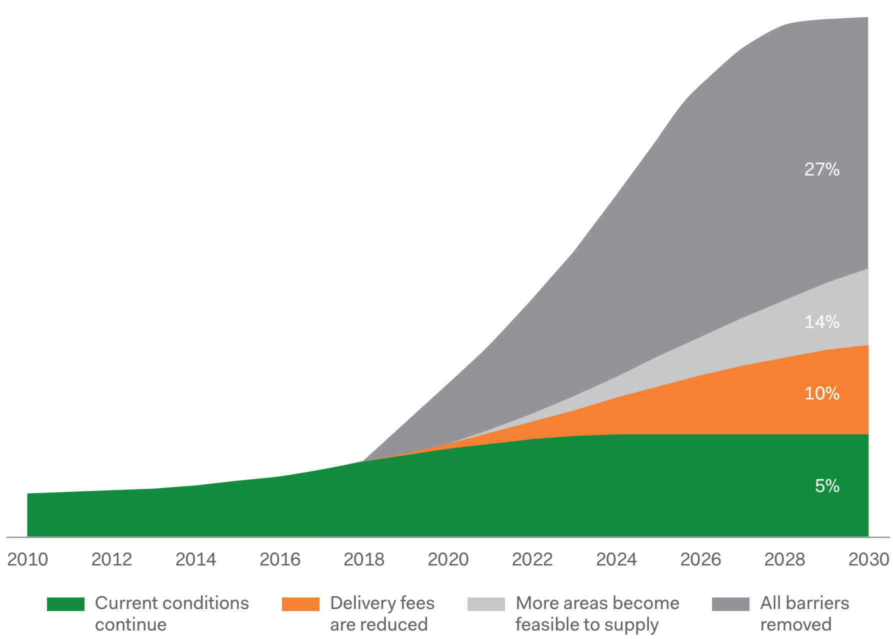
The Future of Retail

It is difficult enough for retailers to cope with the emerging issues that we will discuss in this article. But even more disquieting is the idea that the greatest disruptions to retailers and product suppliers may be yet to come.

At the January 2018 Board of Directors meeting at FMI Midwinter Executive Conference, FMI partnered with Oliver Wyman to explore the future of retail and consumer goods. Key topics included the rise of online retail, the changing role of stores, the risks of disintermediation and reintermediation, the emergence of new models, and the implications for CPG companies. After a content feature, a panel discussion was held, featuring Marc Poulin, Shelley Broader, and Paul Grimwood. The following pages summarize key elements from that discussion in January.

Oliver Wyman's full report on the future of retail, entitled *Retail's Revolution: How Retail and Consumer Goods Companies Can Adapt*, delves deeper into how consumer preferences could further disrupt the retail sector – creating opportunities for retailers and manufacturers to reach customers in new ways, while also giving rise to new competitors in the space. The full study and accompanying materials can be found at: www.oliverwyman.com/our-expertise/hubs/retails-revolution.

Exhibit 1: Food e-commerce share projection



Source: 2017 Oliver Wyman Digital Shopping Model

1. Countries: Austria, Canada, Denmark, Finland, France, Germany, Italy, Netherlands, Portugal, Spain, Sweden, United Kingdom, United States.
Source: Oliver Wyman analysis

THE RISE OF ONLINE RETAIL

Today's retail world is changing like never before. The new generation is full of digital shoppers who have grown up speaking to Amazon's Alexa and interacting with touchscreens. Something as simple as grocery shopping in the supermarket has become a special occasion, as weekly grocery orders are delivered to the doorstep.

The prevalence of technology will continue to grow and shape how consumers define shopping. A question at the forefront of food retailers' mind is: How will the rise of online retail impact the food industry?

Online retail in other sectors besides food

Before examining the food industry, it is worth assessing trends in the nonfood retail sector as a proxy for what's to come. For these categories, the penetration of online retail is already high and is expected to continue to grow. This growth has not come as a surprise, as barriers to adoption have decreased in recent years, greatly improving the customers' online experience. For example, one major stumbling block to purchasing cosmetics online has been the difficulty consumers have in envisioning how products will look on them. L'Oreal overcame this challenge by investing in an app, Makeup Genius, which demonstrates various looks on a customer's face in real time. Another challenge for online sales is the time and effort customers require in picking from an endless aisle of seemingly limitless options. Cladwell, a startup in the clothing space, catalogs its users' wardrobes and helps evaluate the incremental value of new items.

The removal of further barriers will continue to raise the penetration of online shopping, so that it could comprise between 20 percent and 25 percent of the US market within five years.

THE RISE OF ONLINE FOOD SHOPPING

In contrast, online penetration has remained low in the food sector. Many industry leaders are skeptical that online sales will ever make up a significant share, given the high barriers to adoption. These barriers include discomfort with a cumbersome digital shopping experience and additional charges reflecting the cost of fulfillment and delivery.

Exhibit 2: Online demand

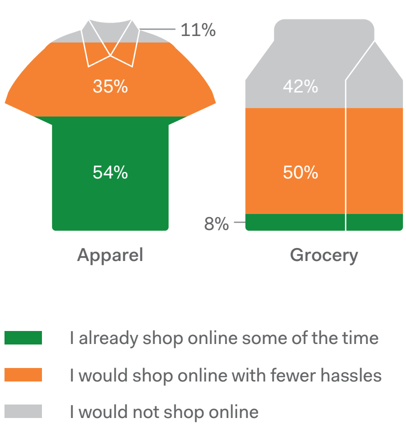


Exhibit 3: Key blockers in online food

Sample blockers	Example solutions
Difficult to choose from unwieldy product selection	Whisk "Buy this recipe" plug-in
Inconvenient to accept deliveries on schedule	August Home In-fridge delivery
Expensive deliveries	DHL Passive cooling to use existing networks

However, as shown by the survey results in Exhibit 2, the latent demand for online food shopping is similar to sectors such as apparel that already have high online penetration. In grocery, the latent demand for online shopping is significantly higher than the actual online share: 50 percent of consumers included in the survey reported they would buy food online if there were fewer hassles. This indicates the potential for a rapid increase in online penetration for food if the customer experience is improved.

Many key roadblocks in food are ripe for removal. As seen in Exhibit 3, solutions are emerging to three key challenges for food delivery – a major barrier to online sales.

Selecting products can be time-consuming and overwhelming; companies such as Whisk allow consumers to order ingredients for an entire recipe in a single click. Waiting at home for a scheduled delivery is inconvenient; in 2017, Walmart and August Home launched a trial for an "in-home" delivery service, in which the driver is given access to a customer's home and can therefore put the purchases straight in the fridge. Running a fleet of refrigerated trucks is expensive; in Germany, passive cooling technology has enabled Amazon to use DHL's network of regular trucks, which are cheap and frequent, so the cost savings can be passed onto consumers.

Although not all of these specific solutions may be successful, they are indicative of the high level of activity dedicated towards creating e-commerce solutions. Given the amount of ingenuity and investment being deployed, most of these barriers to online retail will eventually be addressed.

If retailers overcome these challenges, there will likely be a rapid uptake in online food shopping, which would be a threat to those incumbent supermarkets that are depending on low adoption for the foreseeable future.

At current growth rates, online share of food sales in the US will only reach between 5 percent and 8 percent over the next five years. However, if barriers – such as shopping experience, delivery convenience, and cost – are removed, online food penetration could rise as high as 27 percent by 2030, as seen in Exhibit 1.

"Growth will be slow initially, but ramp up quickly. Smaller retailers will start to close, reducing consumer options and driving more people online."

Marc Poulin | Former CEO, Sobeys

THE ROLE OF STORES

The role of the physical store will still be important despite the rise of online retail. In fact, brick-and-mortar retail can still thrive in the new era. Oliver Wyman's 2017 survey of consumers found that those who shop both online and in stores are more satisfied than those who only shop via one channel, as seen in Exhibit 5.

Many consumers will continue to go to physical stores for advice, to socialize, and to try out products.

"Physical stores will take on new and nontraditional roles. We may see some emerge as service or return centers in order to keep the customers coming in."

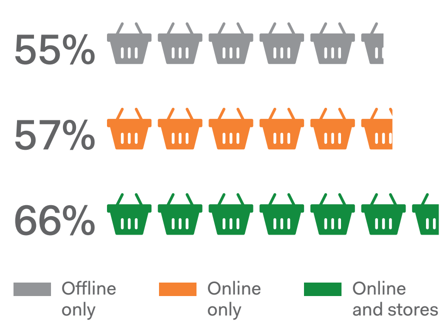
Shelley Broader | President and CEO, Chicos FAS

Traditional retailers will be able to leverage their main assets: a network of stores in key locations and knowledgeable staff with experience in assisting customers. In fact, even online retailers are starting to realize that they need to build a physical store presence.

In China, JD.com announced plans to create 1 million rural stores, approximately one for every 1,300 people. However, the stores of the future will look different than the stores of yesterday. For example, Alibaba's Hema store features a number of experimental ideas that link technology to the in-store experience. Hema's stores double as warehouses for online purchases, where Hema employees fulfill orders and drop off bags on conveyer belts.

These tracks run up the wall of the store to the ceiling, allowing the bags to travel over the customers' heads to an adjacent delivery hub.

Exhibit 4: Consumers who enjoy grocery shopping



Additionally, visitors select and pay for groceries with their smartphones, and the Hema app suggests recipes and other products based on what consumers scan.

THE IMPORTANCE OF PARTNERSHIPS

Both traditional and online retailers face challenges in the new world. Incumbents find it hard to carry out digital innovation at sufficient speed, while online retailers don't have expertise in running stores. While some will still choose to build their own solutions, acquisitions and partnerships will become an increasingly common way to rapidly gain new skills, capabilities, and assets.

For example, Walmart partnered with Google Home in order to provide a new pathway for customers to access Walmart products. Through this partnership, Walmart provides customers with the ability to shop for more than 2 million items through voice shopping. In the UK, supermarket Morrisons is partnering with Amazon and Ocado to develop an online business.

Creative partnerships will open up big opportunities for today's retailers to get ahead in omni-channel retail, further accelerating online penetration.

THE RISKS OF DISINTERMEDIATION AND REINTERMEDIATION

As the value chain becomes more modular, retailers will face the risks of both disintermediation and reintermediation. Previously, retailers were the primary link between manufacturers and consumers. But in the new world, manufacturers can achieve direct access to consumers. In addition, new companies can come between retailers and customers. For example, in the US, many retailers already rely on fulfillment intermediaries such as Instacart and Rosie to provide delivery services.

Food platforms will be a large part of the disintermediation risk. In Denmark, consumer packaged goods companies pooled resources to pilot Shobr, an independent online grocery platform that allows consumers to buy grocery items straight from brand manufacturers. Although Shobr has since morphed into more of a retailer format, other companies are vying to make this model work.

In the future, choice intermediaries will pose a reintermediation threat. As consumers become more comfortable ordering via voice-operated applications, they will learn to trust a digital assistant, or "food butler." Eventually the digital assistant could be relied on to fill a basket, recommend items and recipes, and suggest where to shop.

Many consumers, especially those under 40 years old, are interested in various forms of choice intermediary. The danger for retailers is that the choice intermediary will take their place in the customer relationship. Additionally, intermediaries may start to influence where consumers shop. Choice intermediaries could begin to split baskets across multiple retailers to offer savings or start charging retailers to be the source of fulfillment to customers in overlapping catchments. Brand owners won't be immune either, as the choice intermediary could suggest lower-cost products that are functionally better, if they exist.

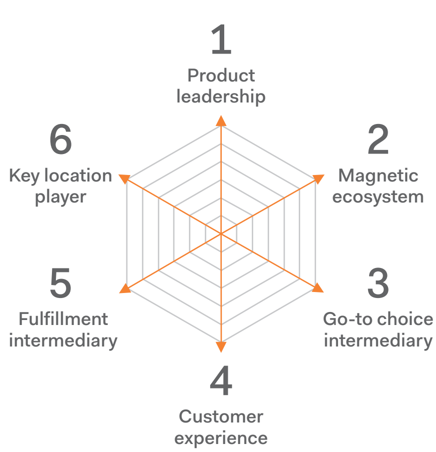
> *"The threat to private brand is most salient for mid-tier brands. They will get squeezed between private brand and national A-brands that are able to invest in both marketing and innovation."*
>
> **Paul Grimwood |** President and CEO, Nestle USA

THE EMERGENCE OF NEW MODELS

As the ecosystem reconfigures, the traditional labels of "retailer" and "manufacturer" will become obsolete as new business models emerge. While there will be a large variety of successful models, the following six archetypes will feature strongly.

There will be **product-led companies**, which make exactly what their customers

Exhibit 5: Six archetypes



want, selling products through their own stores, but also utilizing others' channels and direct routes to market. This is traditionally the role of CPG manufacturers, but many retailers, such as Trader Joe's, have established a reputation for high-quality differentiated products that bring consumers through the door.

Some companies will develop **magnetic platforms**, which create compelling shopping and consumption experiences that give customers strong reasons not to go elsewhere. In China, Tencent's WeChat allows consumers to do everything from games and messaging to e-commerce to mobile payments. This platform is extremely magnetic; more than half of users log on at least 10 times per day.

There will be the emergence of **choice intermediaries**, which allow consumers to save time and money and are relied upon to find better products for consumers. The emergence of choice intermediaries is already seen in the apparel space. Dressipi provides a service to retailers such as John Lewis to help brands offer personalized recommendations on their sites based on a set of stated preferences and explicit color choices.

In some cases, **customer experience** champions will attract customers by offering engaging, high-service shopping experiences. Their stores may not actually hold inventory, and they may get paid by manufacturers for showcasing brands. In fact, they may not even be stores. Zappos, an online shoe retailer, has built a reputation for exceptional customer experience through a combination of strong service and personal attention.

Some companies will enter the **fulfillment intermediary** space, and they will excel in getting products from distribution centers and stores to the consumer's front door in the most efficient and reliable way. Recently, there has been a massive influx of venture capital flowing into fulfillment startups, such as Instacart. Although fulfillment intermediaries may look like helpful service providers at first, the danger emerges when these intermediaries start owning the customer relationship.

Finally, **key location players** will continue to access consumers by positioning themselves in convenient locations or by creating locations that people want to visit. Examples of this model include convenience stores as well as premium shopping mall operators, such as Westfield, which create destinations for shopping and leisure.

Undifferentiated players will struggle, but retailers who are able to differentiate themselves on at least one of these dimensions will continue to thrive in the new environment. The upside is huge for those who get it right.

Exhibit 6: Demand for choice intermediaries

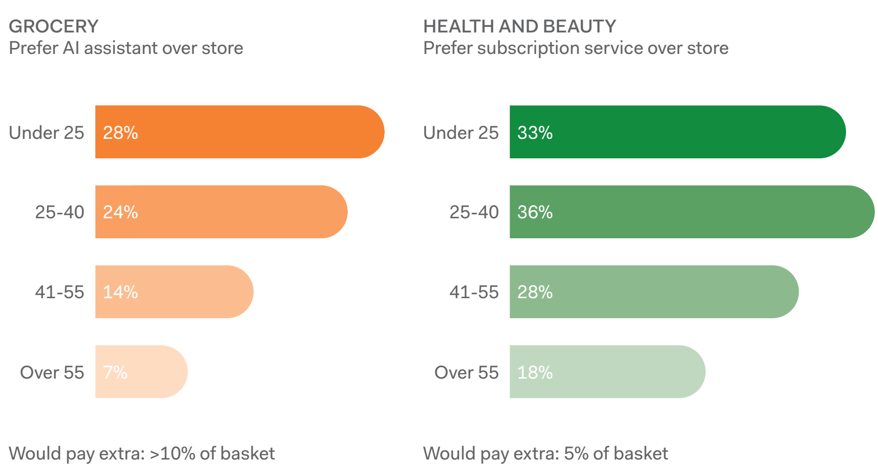
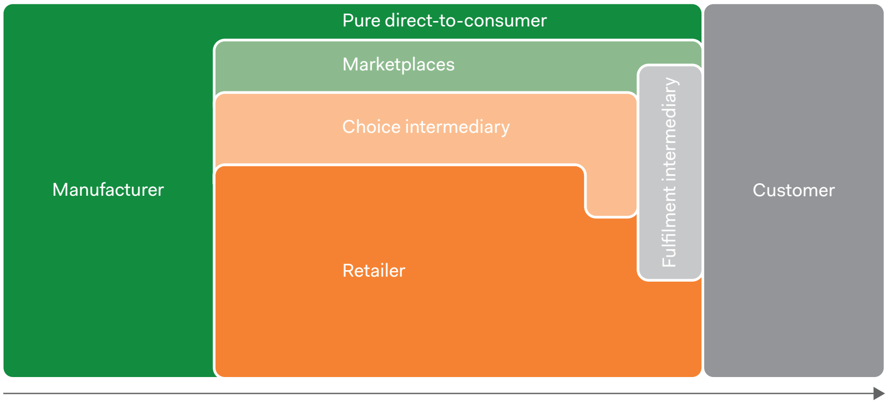


Exhibit 7: Pathways to consumers



IMPLICATIONS FOR CPG COMPANIES

In the old world, retailers acted as the gatekeepers who granted access to consumers – and were richly rewarded. Today, companies are finding new ways to get products to customers, whether direct or through new intermediaries that insert themselves into the value chain. More and more CPG companies are realizing the possibilities in the new world of retail.

The biggest prize for CPG companies comes with an effective direct-to-consumer strategy. Having exclusive sales channels is great commercially and allows companies to learn about customers by capturing insightful data directly. Getting results in direct-to-consumer comes down to cracking customer lock-in and reorder by supplementing brand loyalty with an ecosystem that makes it hard for customers to leave.

Developing unique strategies for different products is one approach to capturing customers by going direct. With high engagement products, such as cosmetics, direct-to-consumer may require additional content and value-added services. For lower engagement products, it may be more about subscription or ease of reorder,

Exhibit 8: Example acquisitions and partnerships

	ONLINE PLAYERS SEEKING PHYSICAL PRESENCE			PHYSICAL PLAYERS SEEKING ONLINE PRESENCE		
MAJOR ACQUISITIONS	Amazon	+	Whole Foods Market	Walmart Nordstrom Target	+	Jet Hautelook Shipt
NOTABLE PARTNERSHIPS	Amazon Tencent JD.com Alibaba Group	+	Kohl's Walmart 7Fresh Sun Art Retail Group Ltd	The Home Depot Carrefour Auchan	+	Google Home Cogepart Colisweb

such as Amazon's strategy with Dash and Alexa. Changing product format can also drive lock-in. Nestle deployed this strategy with Nespresso. Heineken is also working on a similar offering with an in-home keg system. CPG companies have also developed captive platforms such as Shobr to get closer to consumers.

However, even going direct cannot remove the threat of choice intermediaries. In a world where a machine is choosing for customers, brand equity is beginning to lose its value. Developing "immunity" to choice intermediaries may mean ensuring products have genuine quality, specification, or price advantages. Companies need to find a way to either make the algorithm choose their products or gain unprecedented customer loyalty by creating a brand that speaks beyond quality. While choice intermediaries are good for products that hinge on points of differentiation, they could mean trouble for brands that can easily be swapped for others.

PANEL DISCUSSION INSIGHTS

Following the content feature, a panel discussion was held to discuss key challenges facing food retailers in more detail. In particular, the panel focused on the changing role of stores, e-commerce adoption, trends in consumer behavior, and the threat of private brand.

Shelley Broader, President and CEO of Chico's FAS, discussed her perspective on the changing role of physical stores in today's retail industry. Several nontraditional roles for store fronts have emerged in recent years, such as leveraging them for the purpose of returns from online purchases. As Broader put it, "Physical stores will take on new and non-traditional roles. We may see some emerge as service or return centers in order to keep the customers coming in." As our world shifts toward digital, more and more retailers are wondering how to maximize the utility of their stores while capturing online sales.

Additionally, Broader talked about her observations and predictions around consumer behavior in the retail industry. Contrary to some expectations, she found that customers welcome greater transparency and options around price. Broader has been particularly surprised by how open customers are to different pricing options, such as paying for faster shipping and accepting discounts for no returns. She also spoke about the misconception that e-commerce adoption is only for younger demographics, using her business as a primary example to debunk the myth. Chico's demographic skews older, but have rapidly adopted of e-commerce.

Marc Poulin, former CEO of Sobeys and co-author of *Retail's Revolution*, also shared his perspective on e-commerce adoption. He explained his predictions for how quickly retailers will adjust to the changing environment: "Growth will be slow initially, but ramp up quickly. Smaller retailers will start to close, reducing consumer options and driving more people online." Additionally, Poulin discussed how even a 10 percent adoption will cause a lot of marginal supermarkets to close, reducing the local brick-and-mortar options for consumers and further stimulating online shopping.

Paul Grimwood, Chairman and CEO at Nestle USA, expressed his thoughts on the threat of private brand to today's food retail players. He recognized retailers who are likely to be impacted by the rise of private brand: "The threat of private brands is most salient for mid-tier brands. They will get squeezed between private brand and national A-brands that are able to invest in both marketing and innovation." Private brands are growing fast through aggressive value engineering that replicates the quality of major brands at a significant discount. However, Grimwood was skeptical of the impact these products will have on categories other than mid-tier brands.

CONCLUSION

The future of retail will feature a high level of online penetration. The best suppliers will establish direct-to-consumer relationships, where retailers will no longer serve as the gatekeeper to the customer. Intermediaries will emerge and try to dominate the customer relationship, pushing undifferentiated retailers into a backroom role – essentially just a link in the supply chain. Disruption will impact retailers and CPG companies alike as the industry continues to follow the ever-changing wants and needs of consumers. Those who are able to differentiate themselves will continue to survive and thrive.

Nick Harrison

Embracing the Information Age

TRADITIONAL GROCERY STORE TURNED FROM DINOSAUR TO DYNAMO

The year is 2028, and Helen Martinez doesn't shop the way her parents did. Like them, she buys almost all her food and household items from The Fictional Food Store – but unlike them, she no longer needs to go to a store. Instead, she signs up for regular deliveries with the supermarket's Food Butler app. This offers shoppers maximum control with minimum hassle. Parameters include the degrees to which a food basket is healthy, adventurous, or inexpensive. Ms. Martinez has indicated that her family consists of two adults and two children – one of whom is allergic to gluten. Food Butler then auto-populates her shopping lists, plans her family meals, and figures out the lowest-cost delivery options. "I don't have to think about menus and meals," she says. "Fictional Foods sends them to me."

Fictional Food's attraction to shoppers like Ms. Martinez explains why it has become a grocery success story. The company has just grabbed a 20 percent share of the US and European grocery markets, cementing its position as one of the five big grocers outside China. But two decades ago, digital technology and the rise of online shopping threatened to put traditional supermarkets like Fictional Foods out of business.

What made the difference? Unlike other traditional grocers, Fictional Foods embraced a new information era for groceries as it witnessed the rise of Amazon in the sector. It focused on technologies that would help it to pull ahead of old rivals. It also made the most of its customer relationships, enabling it to compete with digital natives even when nearly half of food is delivered to people's homes. Some sign up for regular deliveries, taking advantage of discounts available for a subscription service. Others outsource the complexity of planning, as Ms. Martinez does, by setting parameters. "On the surface, Fictional Foods is a grocery business," said Dave Shultz, global head of retail at Corporate Bank. "But look under the hood, and you see that it is actually an information business."

THE MCDONNELL REVOLUTION

In 2018, Fictional Foods was a traditional store-based grocer under attack with operations in Germany, the Netherlands, and parts of the US. One threat came from discount supermarkets. But the greater menace was online food shopping, which prompted forecasts of the slow death of supermarkets and their replacement by the giants of e-commerce. Amazon had become serious about food with its purchase of Whole Foods Market, and soon after it became – after Apple – the world's second trillion-dollar company in terms of market value.

That year, Jason McDonnell took over as Fictional Foods CEO and started a revolution. On Monday, October 8, staff arrived at the company's head office and found three-quarters of their desks had been removed – to illustrate how much less central support digital retailers were operating with. Hundreds of products were dotted around the office with 30 percent price reduction stickers – to indicate the kind of prices Fictional Foods needed to offer. And each manager was given an iPad with a mockup of the first version of the Food Butler app – to indicate where the future lay.

To cut costs in stores, Fictional Foods first reduced staff numbers at checkout, by allowing customers to scan items, either at the exit or while shopping. Ordering and warehouse operations were automated. And the center of each store, which traditionally consisted of stacks of packaged food and household products, was converted into an array of icons and barcodes, so that shoppers could simply click for home delivery or to have their purchases waiting at the exit. Fictional Foods also consolidated its suppliers to a handful with which it had deep relationships. This enabled it both to reduce costs through long-term contracts and to develop new products jointly. Within a few years, Fictional Foods had cut its retail prices by an average of about 10 percent.

The company quickly grasped why online grocery shopping would not be an automatic success and why it would be challenging to square with traditional supermarkets. Many food products need to be kept at specific temperatures and delivered fast, but home delivery can be prohibitively expensive outside densely populated cities. Fictional Foods developed a system to cater efficiently to customers with different profiles in different locations – as well as for the same customers at different times when they have different needs.

Regional fulfilment centers serviced larger home-delivery orders and those containing specialty items unavailable in most physical stores. Smaller baskets and click-and-collect orders were serviced by stores. Options included: delivery within an hour by motorbike; lockers and collection points; and mobile vans touring neighborhoods that customers can locate on Food Butler and place an order with. Fictional Foods also started to use third parties, from taxis to customers picking up an order for a neighbor. "When online grocery shopping first went mainstream, it wasn't that convenient," says Caroline Smith, grocery expert at the consumer organization, Consumer Watchers. "Fictional Foods has managed to set up a system that can serve regular planned deliveries but also short-term unplanned needs. This was a major unlock."

FOOD AS AN INFORMATION BUSINESS

In 2025, Fictional Foods accelerated the use of information in its operations in order to understand its customers' behavior better: where they will be when, and what they are likely to want to buy. Predicting these factors helps satisfy customers more efficiently and offer products and services at lower prices. Fictional Foods even let customers vote through Food Butler for less-common products to be added to their local outlet. Fictional Foods began to use big data analytics to predict the characteristics of new products that consumers would purchase if they existed.

The model depended on the ability to leverage vast quantities of customer data – which in turn depended on the availability of such data. In 2021, Fictional Foods started to buy up other retailers, including one grocer dominant in most European countries and in most regions of the US. Often it acquired the number two player in a market: Battered by e-commerce competition, these were cheap in the early 2020s. Fictional Foods then introduced its products, digital operating practices, and low prices. Most importantly, it integrated the acquired businesses into its system of stores and fulfilment centers, which was set up for each region based on customer characteristics, population density, and competitor profiles. In many cases, these also-rans turned into regional market leaders. "Fictional Foods worked out that their huge

amounts of customer data were one of the few advantages they had over us in the late teens and early twenties," said one retired Amazon executive. "We were watching and trying to keep up."

The company's "Innovation Leader" service offers suppliers insights into global consumer purchasing habits, enabling these suppliers to optimize their product offerings for different countries and consumer segments. In return, Fictional Foods gets better terms from the big brands, as well as innovative new products and promotions to pass on to consumers. In Germany, Fictional Foods is testing a service that lets customers commission products over long periods, to enable manufacturers and farmers to plan further ahead. One project is the world's largest organic chicken farm, underwritten by three-year customer subscriptions. "We find that empowering customers can unlock great new ways to do things," said Ms. Huygens.

In the industry, Fictional Foods has become known for the flow of information and suggestions between customers, suppliers, and fulfillment services. A customer chooses a health rating on Food Butler so that it can recommend appropriate food, while also taking into account the customer's recent orders and ratings of previous meals. Suggestions and discount offers are relayed via Food Butler so that customers will go to the branch where the product range best matches their preferences.

When a delivery comes to a neighborhood, customers there are invited to make an order and offered a discount. Large subscription-based orders earn significant price cuts when they are coordinated with neighbors' orders. Some customers scan products at home as they use them: Fictional Foods then calculates when they might be ready to replenish their fridge and suggests a delivery for a time when the customer is likely to be home. Fictional Foods thus influences customer behavior to achieve a transparent, intelligent supply chain that makes fulfilment more efficient and less costly, and this magic lifts the economics of the whole business. "We have signed up for four new meal suggestions a week, which are deliberately adventurous," said Jens Stoltz, who lives in Munich with wife Tanja and their two children. "The prompts then provide us with extra surprises."

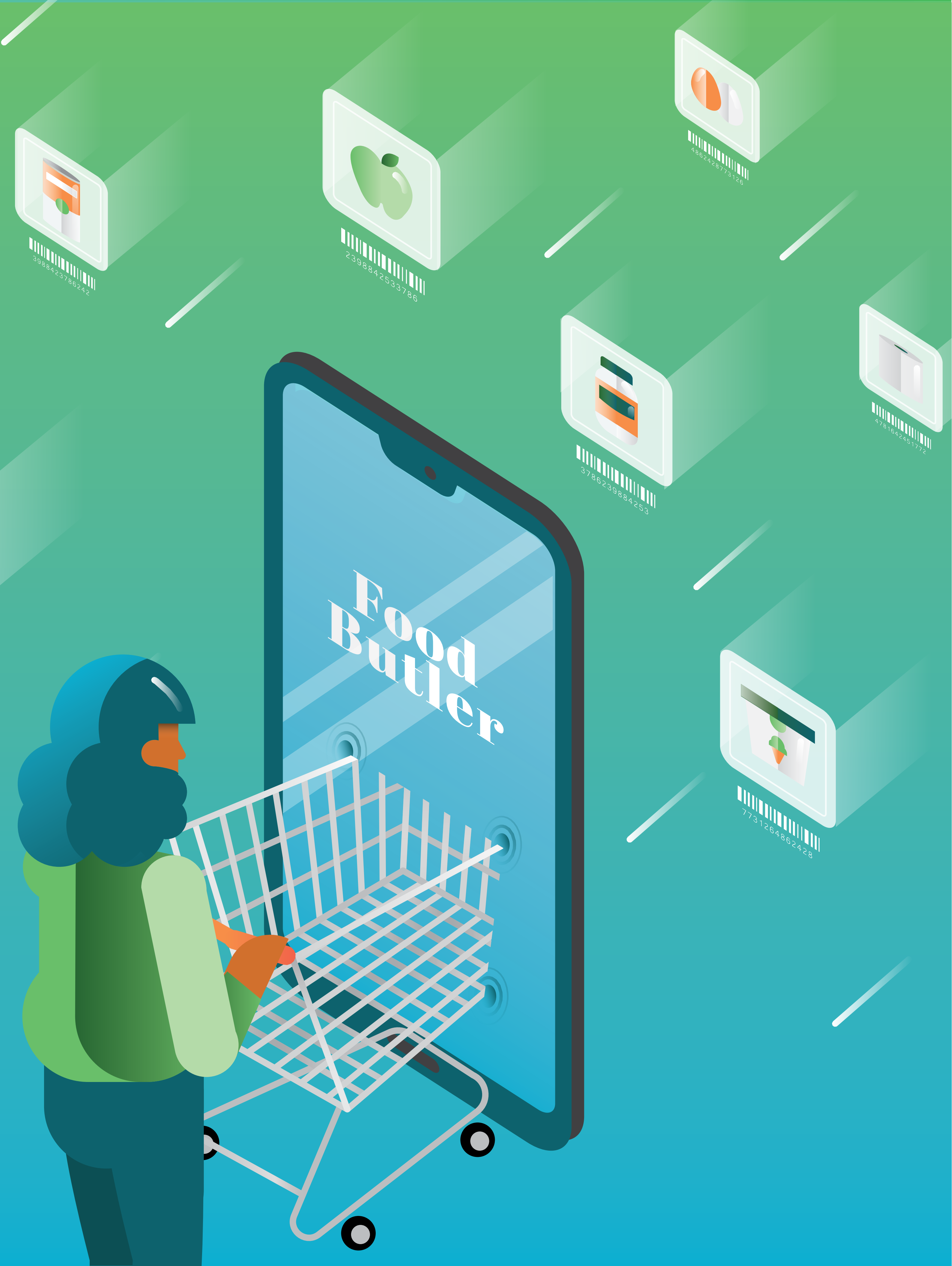
Earlier this year, Fictional Foods took its use of IT to a higher level with the launch of its Premonition forecasting system. Traditionally, retailers forecast the demand for products in each store and then place orders with suppliers and send the products to the right stores. Premonition forecasts what an individual customer might want, even if they are not yet aware of it themselves. If a customer is walking down a road near to a mobile delivery unit, Premonition can suggest a recipe kit to buy and take home based on his past choices – even if he had not actually been thinking of what to buy for dinner. "It can even help customers eat better by preemptively suggesting a healthy desert when it knows a customer is at risk of ordering a quart of ice cream," says Kimberly Robinson, the mathematician behind the system. "Premonition probably knows more about customers than they do themselves."

On her Food Butler, Ms. Martinez has set her cost-consciousness level at nine out of 10 and both cooking time and healthiness at six, while she chooses a seven for how experimental she wants her meals. She gets discounts on regular subscription items and also from coordinating delivery slots with her neighbors. "All this saving means I can let Food Butler book me and my husband a dinner every per month at a local restaurant," she said. "It surprises me with a different selection each time."

But the biggest surprise of all has been the fact that Fictional Foods, once a hidebound traditional supermarket, is at the head of the pack in redefining groceries. That's because McDonnell was one of the few CEOs who recognized that the innovations implemented by Amazon after its purchase of Whole Foods in 2017 just scratched the surface of digital grocery shopping.

Ten years ago, that was not an obvious direction for the industry. Concerns over privacy and misuse of data were generating a public backlash against the gathering of individuals' data by big corporations. This led to pressure for privacy regulations that might have derailed parts of Fictional Foods's current business model.

But McDonnell saw that many aspects of IT – such as supplier management and warehouse and store operations – would still be applicable whatever the public thought of using their data. And in the end, the public was convinced that safeguards on data use would prevent meaningful compromise of their privacy. Most people saw the benefits of letting a grocer get to know them through data.


Food
Butler

EMERGING NEW CONSUMERISM
ALIGNING ON VALUE

Taddy Hall

Cory Cruser

How to Turn a Job into a Product

RETHINKING WHAT CUSTOMERS WANT FROM THEIR PURCHASES

Businesses love their products, so they are often keen to show them off with all the latest and greatest features. Customers may love their products too – but maybe not for the features alone, which when piled on can even become confusing. Instead, they love products for the job they get done.

To take an example consumer product, American Girl has great reason to be proud of the broad range and quality of their dolls and playsets. Over time, they have expanded that selection to include more toys and more accessories. But what if you were responsible for innovating new products for American Girl? The answer is not simply more characters and accessories.

Instead of thinking products ("We are in the business of selling dolls"), think from the customer's point of view: "I could use some help strengthening the bond between me and my daughter in ways that are fun for both of us." Not only does this shift reveal a more accurate view of the potential opportunity, it also underscores the strong emotional forces at work at stake. With this approach, American Girl has not just put out new dolls and accessories but also focused on creating opportunities to strengthen parent-child bonds. These include, for example, American Girl books that can be read with one's child, in-store restaurants with doll-sized high chairs, and the option to custom design a unique doll. In this way, American Girl creates shared experiences and connections in a way that product-led innovation could not on its own. Successful innovations like American Girl's address not only the functional requirements but also address the underlying need that a customer has.

All too often, product managers reduce the value proposition of their products to a list of performance attributes and seek to one-up the direct competition on those attributes. Jobs Theory is a powerful way to avoid this trap in any consumer-facing industry. The core insight is that customers do not look for products or services, rather they seek to make progress in their lives. Finding themselves in circumstances where they need a hand, they pull products and services into their lives to make the desired progress. This progress defines the "job" they are trying to get done. Products are what customers then "hire" to get these jobs done. If the purchase does not live up to expectations, customers will "fire" it and look for alternatives. Adopting this way of thinking broadens the possibilities and puts the consumer back at the heart of innovation.

DRAWING ROADMAPS THROUGH JOBS

Jobs Theory can be a powerful tool for developing consumer products. Changes in the dominant order in markets often follow disruptive innovation: new products that transform a market by changing the basis of competition by offering new dimensions of benefit, while reducing cost. Such innovations often have the air strokes of genius that a product developer came up with through chance or inspiration.

But Jobs Theory can take some of the chance out of innovation. Understanding specific jobs reveals why people purchase and use products and services, and why they sometimes behave in ways that involve no purchase at all.

Exhibit 1: Jobs-based innovation – Product versus jobs mindset

Source: Lippincott analysis

The theory looks for deep insights into human behavior – why people do what they do and which jobs they are struggling to perform – and considers the tasks they want performed. Product designers can then zone in systematically on the specific features that will improve products, services, and relationships. The jobs approach thus provides a roadmap with clues for where to look for opportunities.

Take, for example, making iced coffee at home. People were struggling and deploying a variety of suboptimal solutions which involved a time-consuming process of brewing the coffee and mixing in the sugar and creamer themselves, ultimately producing a semi-satisfactory drink.

International Delight, a maker of flavored coffee creamers, considered how it could help. One problem was that people are loyal to their coffee brand and would not normally consider buying from a brand without coffee credentials. Unlike hot coffee, however, iced coffee is drunk a bit like an adult milkshake, which means that brand and coffee qualifications matter less. Rather, individuals are seeking the sweet, creamy flavor that iced coffee offers but found the to-go version inconvenient, inconsistent, and costly. So International Delight used its existing creamers to create International Delight coffees: half-gallon, refrigerated, ready-prepared iced coffee that people can pour out at home without any hassle. The coffee mixture used International Delight's existing strong flavor credentials to make the product a success. They understood that iced coffee was about taste and a hassle-free caffeine pick-me-up.

OPERATORS VERSUS INNOVATORS

Generating growth in retail requires two different ways of thinking. An operator's mindset is needed to sustain the core business model, which requires continuous improvements in products and operations, minimizing costs, extracting existing value, and finding new opportunities for value sharing. Opportunities for these improvements can often be revealed through the collection and analysis of data.

However, retailers and consumer goods manufacturers also need an innovator's mindset. The innovator needs to create new sources of growth by "breaking the machine": creating new markets and discovering new areas of value for the customer. Data can help innovation, too. But many organizations labor under a misconception that enough data and the right modeling will reveal the truth.

Innovation is the story of human progress, and life is not an algorithm. While high-powered analytics tools often help innovation, the insights it depends on are fragile constructs, easily washed over by the smoothing effects of averages and regressions. Innovative thinking depends on an appreciation that life's narrative structures are often messy, and innovators need a deep understanding of these if they are to develop offerings that customers will want to "hire."

So, for large companies, it is time to think deeply about specific job opportunities in customers' lives and how to bring about desirable experiences and help them make progress. Teams working with jobs-based innovation techniques can build and deploy data tools that reveal where people are struggling to make progress. They can then work on solutions to help them.

INNOVATING PRIVATE BRAND PRODUCTS

A family-owned general merchandise retailer was troubled by a lack of innovation in its private brand products, exacerbated by a difficult retail environment in their region. The company had a habit of measuring success in terms of sales dollars, rather than focusing on how to connect with customers and fulfill their needs. So, the retailer changed the way it approached product development. Its master objective would be to change the current, category-focused business into a needs-based organization, and it would aim to create products with lifetime value. This implied thinking more deeply and holistically about the customer.

To find out more about customer motivations – that is, the jobs they wanted products to do for them – a framework which included robust survey data and analysis to quantify consumer attitudes was used to look at key behaviors, helping to determine what customers were thinking and feeling as they looked for products. This included whether they agreed with statements such as, "I occasionally splurge and pamper myself because it makes me feel good," and "I want to use products/tools to help me get the job done." These insights were then used to design products that solved problems that matter. The result was more than 70 product innovations and over a dozen product briefs that were ultimately moved to design for launch as solution-oriented products.

Retailers and product manufacturers can become more innovative once they understand that customer needs are the biggest driver for brand love. They can – and should continue to – pursue growth from optimization through a category-focused mindset, which is their current core business. But there could be greater opportunities from searching for growth that revolves around finding the white space and moving trading-partner relationships from transactional to strategic.

Sue Borra

David Orgel

Power of Health and Well-Being in Food Retail

THE NEW CONSUMER, HEALTH, AND RETAIL

Health is a much more important topic in food retail today and for good reason: Consumers have placed it front and center. Consumers are passionate about embracing health in many aspects of their lives, and food is a big part of this. However, shoppers are often confused about how to improve their health, and typically can't even agree on how to define it. A new report from the Food Marketing Institute Foundation takes a multidimensional view of consumers, health, and retail. *The Power of Health and Well-Being in Food Retail* leverages insights from a wide range of industry thought leadership, articles, and data.

TODAY'S CONSUMERS ARE MOVING TARGETS ON HEALTH

The word "health" is defined by Oxford Dictionaries online as follows: "the state of being free from illness or injury." That may be accurate, but the reality is far more complex when it comes to consumers. Health often means different things to different people, varying by generation, income, and other life circumstances. Consumers tend not to agree on what kinds of foods or lifestyles will keep them well. Many are confused because of conflicting advice from a wide variety of sources.

- **"Wellness" vs. "well-being":** The overall topic of health and wellness is gradually expanding into "health and well-being." Wellness is still a highly relevant term and is used throughout this report. However, well-being has a much broader definition, including aspects such as emotional health, energy levels, and sleep behaviors. That is why the term thinking about "well-being" is increasingly important.
- **New expectations from retail:** Consumers look to their food retailer as an ally in supporting their health, and retailers have stepped up with impressive and exciting initiatives. However, even as they build a positive story, retailers face ongoing challenges in understanding the changing, diversifying expectations of shoppers.

SHIFTING CONSUMER APPROACHES TO EATING AND SHOPPING

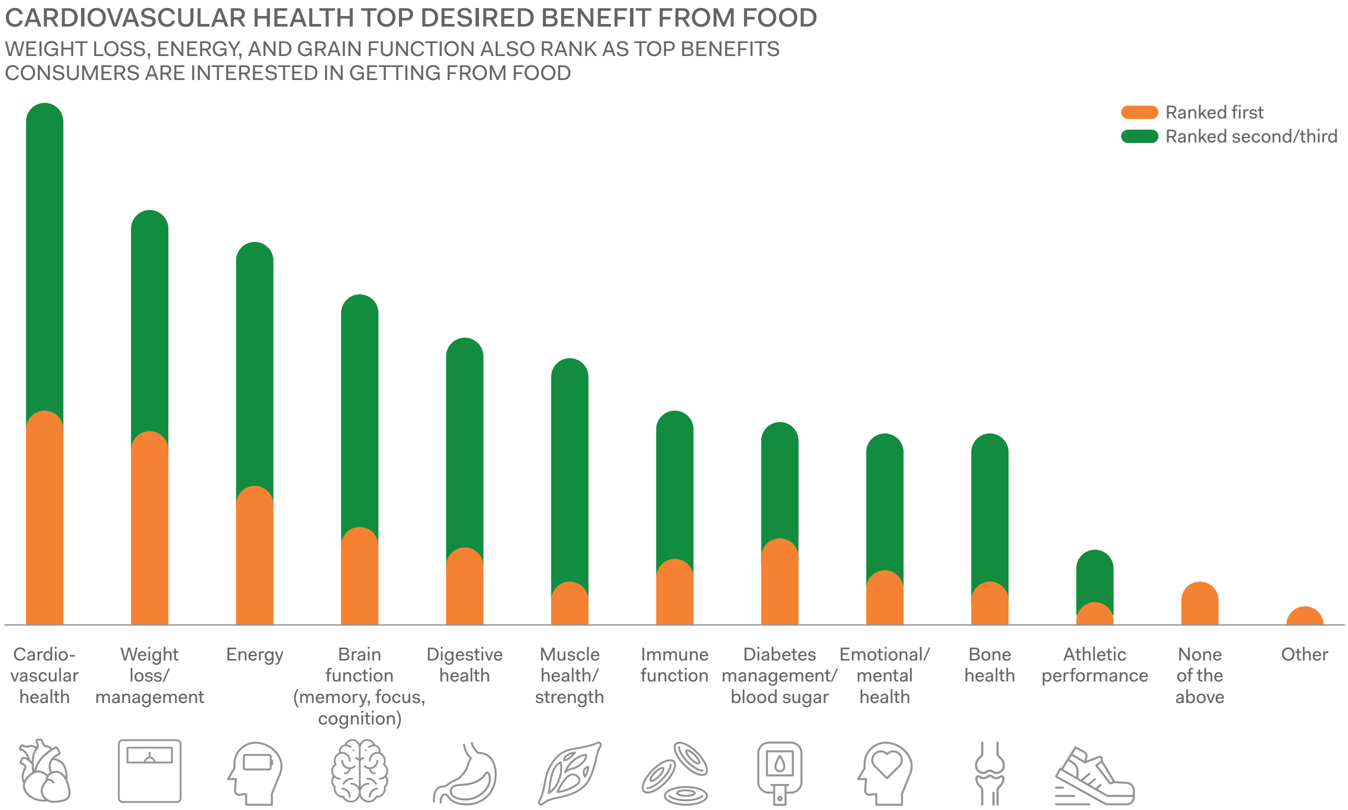
Consumer perspectives on wellness have changed dramatically, and the shifts continue. Food is now identified with a wider variety of health benefits and concerns. However, the story isn't uniform because consumers range widely in their attitudes and behaviors, based on variables that include age and income level, and more.

Food eyed as "medicine" to boost health

Consumers today increasingly look to specific foods for health benefits, against the backdrop of rising healthcare costs and a growing attention to self-care strategies. About two-thirds of shoppers view foods as "medicine for their body," according to research from FMI and Rodale. Cardiovascular health ranks highest on the list of desired benefits from food, based on findings from International Food Information Council Foundation, followed by weight loss/management, energy, brain function, and digestive health.

In addition, most consumers believe that fresh produce has positive health benefits. Many consumers identify produce as a category that supports health. About two-thirds of Americans believe fresh produce is a crucial part of a balance diet, based on findings in FMI's *The Power of Produce* report. (See Exhibit 1.)

Exhibit 1: Food eyed as "medicine" to boost health



Source: IFIC's 2018 Food & Health Survey

Different lenses for different generations

In assessing how consumers view health and wellness today, it's important to consider how trends differ by generation. For example, a lot of comparisons are made between baby boomers, born between 1946 and the mid-1960s, and millennials, born between the late 1970s and mid-1990s.

- Boomers are more likely than millennials—51 percent to 36 percent—to look at calorie/nutrition icons and graphics, IFIC found
- Boomers also more frequently check expiration dates, ingredients lists, and brand name, according to IFIC
- Younger adults, in contrast, are more likely to embrace nontraditional attributes, such as transparency about a product's impact on the environment and humane treatment of animals

Consumers equate family meals with health

Shoppers believe that food prepared at home is more likely to have a health halo. Eighty-eight percent of U.S. adults say they eat healthier at home than when they eat out, a recognition that home preparation allows for more control over aspects that range from ingredients to food safety, according to FMI's *Power of Family Meals*.

Consumers also believe in the importance of eating meals together at home with family, and that can contribute to their sense of well-being. For example, among shoppers with children, 84 percent say it's either "very or extremely important" to eat at home together with family.

The FMI Foundation's National Family Meals Month™ campaign aims to "encourage one more family meal – breakfast, lunch, or dinner – at home each week." The annual campaign in September garners participation from retailers, suppliers, and community collaborators. Key messages have reached consumers via in-store programs, social media, traditional media, and community activities.

Food safety ranks high on consumer radar

Even as consumers embrace new definitions of health, they are concerned about traditional food safety threats. The top concerns are contamination by bacteria or germs; residues, such as pesticides or herbicides; and product tampering. Lesser concerns include food handling in supermarkets and eating foods past the use-by or best-by dates.

Nevertheless, the overwhelming majority, 88 percent, are mostly or completely confident that the food in their grocery store is safe, a number that has edged up in the past couple of years, according to FMI's *Trends* research.

Eating well/shopping well and health

What's the difference between eating healthy and eating well? Health is a crucial component of eating well, but it's not the only factor. Consumers have evolved their concepts of eating well, according to research by the Hartman Group for FMI *Trends* 2018.

Years ago, eating well focused on "sustenance" and "eating enough." In recent times, it added the component of "health and nutritious." Today, the definition has broadened to include "enjoyment, discovery, and connection." These motivations tie into the bigger picture of well-being. Consider all the ways that consumers describe eating well:

- The health aspect includes eating nutritiously and in moderation, including the balancing of healthy and indulgent foods, and consuming foods and beverages with specific benefits
- The enjoyment component takes in tasty foods and beverages, eating with family and friends, and experimenting with preparation methods
- The connection part involves eating foods and beverages that were produced sustainably and ethically

FOOD LABELS, HEALTH, AND TRANSPARENCY

It's important to understand that shopper wellness perspectives and behaviors are changing, and the details are all-important. There are more variables than ever on how this is playing out, including shopper decisions based on ingredients, nutrition content, labels, organic, and transparency. Retailers need to take deep dives into all of these variables in order to formulate their strategies.

Growing momentum for "clean" and "clear" labels

Consumers have traditionally focused on the *ingredients in products*. However, as perspectives change, many are increasingly interested in *what ingredients are not in products*.

Consumers seek products with fewer and more recognizable ingredients, and products that are free from artificial ingredients, chemicals, and preservatives. They view these as healthier, even if their belief is not backed up by science. The food industry refers to this trend as "clean label," a subject explored in an FMI white paper on this topic. While clean label is widely used as an industry term, it's also somewhat misleading because it could be interpreted as implying that certain products are not clean.

"Clear label" points to what many believe is the next stage beyond clean label. Clear refers to the consumer's increased demands for more transparency and authenticity about ingredients and products across the supply chain.

Shopper demands regarding labels and ingredients are changing quickly, according to the FMI *Trends* 2018 report. Some 71 percent of shoppers attempt to "avoid negatives" by seeking out claims such as low sodium, low sugar, no added hormones, and antibiotic-free.

Organic's allure

Organic is a huge draw for consumers, even if the exact reasons have been debated over time. U.S. organic food and nonfood sales reached a new record of $49.4 billion in 2017, a gain of 6.4 percent from the prior year, according to a 2018 industry survey from the Organic Trade Association.

Given those figures, it's not surprising that some 16 percent of shoppers specifically seek certified organic claims, FMI *Trends* found.

The motivations for choosing organic are multi-layered, according to an article in the *Hartbeat Newsletter*. "While the absence of pesticides and other farm-based 'chemicals' is the primary motivator for organic purchase in store, the package of organic meanings has allowed consumers to use organic as a simple heuristic for 'better food.' They believe they can feel good about their organic purchases from a nutritional and ethical perspective."

Understanding the transparency imperative

Consumers are seeking more information about their food than ever before, and part of the reason is a lack of trust. Consumers still trust supermarkets, but for many that faith is no longer as unconditional as it once was. That's because consumers have become more skeptical about the actions of stakeholders across the supply chain, from farm to store.

All of this relates directly to health and wellness at retail. "Shoppers, for the most part, believe that packaging satisfies their needs for seemingly concrete facts about what is WITHIN products—fiber, sugar and sodium content, calories, and other nutritional elements," according to FMI's *Trends* 2017 report. "However, shoppers want stores to


Asparagus
$ 1 99
ORGANIC
Kale
$ 1 99
Collard
Greens
ORGANIC
Rainbow
Chard
2 69
Organic
Carrots
3 99

SMARTLABEL® AND TRANSPARENCY

Where can consumers turn when they need more information than is available on a package? Many products enable consumers to scan a QR code for deeper information. Among shoppers likely to scan a QR code, the top product claims sought are, in order of importance, sourcing of ingredients, country of origin, manufacturing processes, and animal welfare, according to FMI's *Trends* 2017 research.

The SmartLabel® digital transparency initiative is a high-profile food industry effort. It was created by Grocery Manufacturers Association (GMA) and FMI as part of the industry's Trading Partner Alliance. SmartLabel® provides information to consumers on a wide range of attributes that could never fit on a package label, ranging from purposes of ingredients to details on production to treatment of animals, as outlined in a GMA white paper on this topic. SmartLabel® information can be obtained in multiple ways, such as online, via smartphone scans of products using QR codes, and through toll-free phone numbers.

provide more information and clarity about the meanings and implications of what lies BEYOND products. Complicated notions of product sourcing and animal treatment that speak to ethical practices and fuzzy definitions of product purity (such as non-GMO, 'natural') that communicate minimal processing are areas where packaging tends to fall short."

Consumers seek greater transparency from food industry companies, and that transparency in turn drives trust.

REINVENTING RELATIONSHIPS WITH RETAILERS

Consumer attitudes are changing regarding the ways retailers should support their health needs. Retailers are expected to be health allies that provide education, personalized focus, and a plethora of wellness solutions in all departments. Shoppers in this day of radical personalization won't take no for an answer. They have too many other choices.

Wellness drives consumer perceptions of retail channels

Some 47 percent of shoppers said providing healthier choices is a way for food retailers to support consumers in eating well, according to FMI Trends. Here's a look at some shopper behaviors and perceptions regarding wellness at retail.

- **Health channel choices:** The top retail channels used regularly for health and wellness products, according to the *Hartbeat Newsletter*, are supercenter/discount stores (36 percent); grocery stores (34 percent); drugstore/pharmacy (32 percent); club store (17 percent); and natural/health food store (16 percent).
- **Channel choices equate with "effort":** Certain retail channels—including natural/organic stores, farmers' markets, and specialty food shops—are more likely to be frequented by consumers who put more effort into healthy eating.
- **Emerging players:** Consumers are getting more exposure to a growing number of innovative, upstart food brands with wellness-focused product attributes. This trend was chronicled in a *Consumer Goods Innovators Index* created by consultancy Oliver Wyman. Many of the brands included in this index are targeting highly popular trends, including plant-based products, healthy meals and snacks, and environmentally friendly propositions. The business models range from delivery to subscription.

Consumers trust their primary store as a health ally

For decades pop songs have extolled the virtues of friendship and support, with standards such as, *"You've Got a Friend,"* and *"Lean on Me."* As it turns out, these sentiments also are relevant in describing how consumers rely on retailers for health, wellness, and well-being.

Consumers view their primary store as an ally in their wellness, a perspective that has been gaining momentum, according to FMI *Trends* research. Asked to name their key allies in wellness, 55 percent of consumers surveyed in 2018 pointed to their primary store, up from 45 percent the year before. Moreover, 41 percent cited food stores in general, a jump from 33 percent the year before. (See Exhibit 2.)

Putting this in perspective, retailers don't rank quite as high as family, doctors, farmers, friends, and fitness/health clubs. However, the primary store outranks a range of other retail and foodservice channels, including drugstores, online grocery providers, and restaurants.

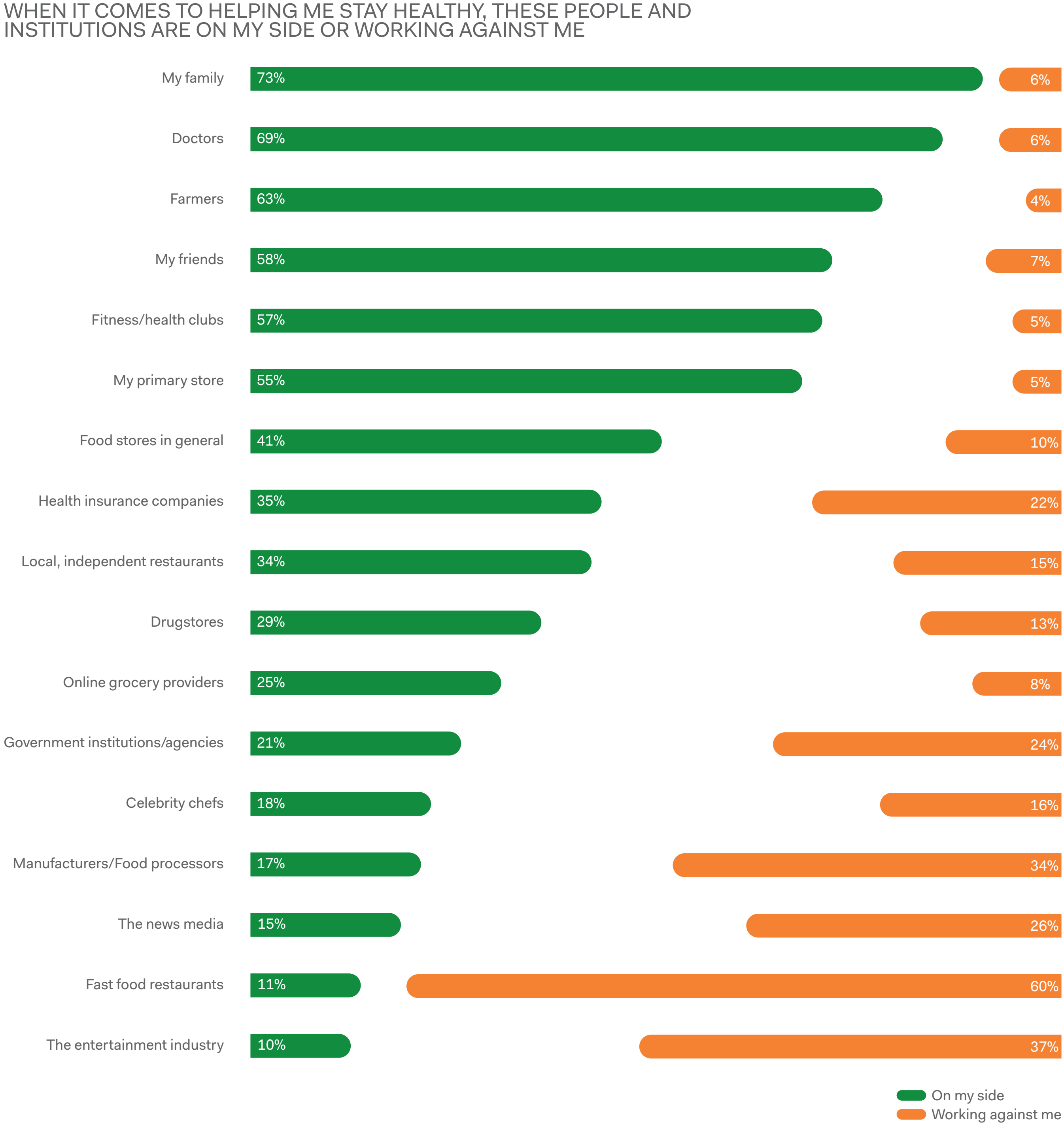
Private brands play bigger role

Private brands have experienced a growing connection to the wellness trend. Here's how this was explained in the 2017 FMI *Power of Private Brands report*: "Health has become mainstream. Ideas like clean label, antibiotic-free, and grow your own are no longer fringe—they are ubiquitous.

Private brands with health and wellness focus are gaining share. And it's not just about food. The health and wellness trend is impacting all industries, including personal care, fashion, household products, and even general merchandise. This includes a focus on hyper-targeted medical conditions."

FMI has further spotlighted this topic with a new report called, *Delivering Health and Wellness with Private Brands*. About three-quarters of retailers view health and wellness as a significant growth opportunity for these brands, according to FMI's 2017 *Report on Retailer Contributions to Health & Wellness*.

Exhibit 2: Consumers trust primary store as ally in health



Source: FMI U.S. Grocery Shopper Trends, 2018.
Q: “When it comes to helping you stay healthy, which of these people and institutions would you say tend to be on your side (helping you), and which tend to be working against you (making it more difficult to stay healthy)? (Select one response for each row/institution)” n=1.035.
Q: “All things considered, how would you rate the job each of these stores are doing in meeting your needs?” n=2,136.
Q: “How confident are you that the food in your grocery store is SAFE?” n=1,035

Omnichannel health preferences: Bricks vs. clicks

In an omnichannel environment, are consumers likely to find better health solutions in physical stores—or online? Consumers do not point to one format as superior in supporting wellness, but instead believe each provides different advantages.

Brick-and-mortar shopping stands out for freshness of perishable items, according to FMI's *Trends*. The top categories that 90 percent or more of consumers prefer to buy in person are fresh produce, deli foods, refrigerated dairy foods, fresh meats and seafood, fresh bakery items, and milk or dairy substitutes.

Online is viewed as helping to support sustainability and transparency. In the latter case, consumers gave considerably higher marks to online for attributes including access to detailed product information, selection of natural product offerings, selection of organic product offerings, and openness and honesty.

STEPS FOR ONGOING RETAILER COMMITMENTS

Consumer health needs are clearly on the radar of retailers. Food retail executives cited consumers' focus on health and wellness (81%) and leveraging food to manage and avoid health issues (72%) as the top two opportunities that could positively impact sales and profits, based on an industry survey conducted for FMI's *The Food Retailing Industry Speaks 2018*.

Retailers have made impressive strides, but it's important to keep adapting solutions for a range of requirements, including food safety, health and wellness, social good, and inspiration and discovery.

Retailer strategies need to be based on knowledge about individual markets and customer bases. That said, a number of strategies have been widely successful and are likely to grow in importance. FMI'S *Best Practices and Excellence in Fresh Department Health & Wellness Programming* is one of the many FMI reports that outline successful strategies.Here's a brief look at some proven approaches that will be useful as consumers continue to raise the bar on health and wellness.

- **Emphasize food as medicine:** Consumers realize categories such as produce are healthy, but retailers can further educate shoppers on how specific items can address various disease states.
- **Embrace transparency:** Retailers should make efforts to satisfy consumer transparency needs, including through a digital transparency initiative such as SmartLabel®.
- **Play up convenience:** Consumers are embracing both convenience and health, so offering creative solutions to both needs can produce winning solutions. These could include, for example, "pre-seasoned meat, poultry and seafood, or premade kabobs with fresh vegetables."
- **Prioritize portions:** Shoppers sometimes want to indulge in a department like bakery, but they also appreciate options for smaller portion sizes. Retailers can be an ally by offering a range of package sizes.
- **Promote local:** Consumers are often interested in the sources of food and sometimes prefer items from local producers. Retailers should accommodate this need and explain how "local" is defined in their marketing.
- **Boost private brands:** There's a big opportunity for store brands to further embrace wellness trends. These brands already have a strong head start on the organic front, and they have gained the attention of millennials.
- **Enhance trust:** Shoppers already trust their primary store as an ally in health. Retailers have the opportunity to further advance that status, using a range of solutions that enhance the proposition of total store wellness.

This Boardroom article is a condensed, customized version of FMI Foundation's *The Power of Health and Well-Being in Food Retail*, which can be found at https://www.fmi.org/forms/store/ProductFormPublic/power-of-health-and-well-being-in-food-retail. Readers interested in obtaining the report in its entirety can also contact FMI. The complete report includes a comprehensive list of sources and footnotes.

David Fikes

The More Complex Chicken and Egg Questions

CONSUMER CONSIDERATIONS OF CAGE-FREE EGGS AND SLOW-GROWTH BROILERS

The proverbial question regarding the chicken and the egg tends to focus on which came first. For food retailers, however, the issue is entirely different – particularly when considered within the context of an animal advocacy campaign highlighting this aspect of the food animal production system.

Recently, retailers have found themselves in the cross-hairs of animal advocacy groups regarding two poultry-related production issues: cage-free eggs and slow-growing broiler chickens. The advocate positioning on these topics is often based on optics, where the perception is contrary to the reality. Their view, moreover, tends to be rather myopic, seldom taking into account all the considerations and implications.

In the case of egg-laying hens, advocates may support a housing system that appears better but ultimately may not offer the best protection and safety for the bird; will likely escalate food safety issues; prove riskier for workers; have disadvantageous environmental impacts; and will be costly for egg producers to build and maintain. Appearances aside, advocacy positions on animal welfare issues are often not based on the best science of animal husbandry. Pressure campaigns by advocacy groups are laser-focused on getting the retailer to commit to a position that ultimately restricts consumer choice.

Such pressures offer sub-optimal conditions for decision making. Food retailer positions on issues such as animal housing system and production methods must carefully be considered, weighing all the factors: animal comfort, food safety, worker safety, and system costs. In addition, the retailer must keep in mind the ultimate impact on customers. As the purchasing agent for the consumer, retailers must be cognizant of the level of their customers' knowledge, beliefs, and willingness to pay for the production attribute being advocated.

This is especially relevant since activist demands rarely, if ever, contain funding plans for a seamless transition to new production methods, meaning that the cost burden is passed along to the consumer. Also, activists often fail to include contingencies for how their position affects low income and Supplemental Nutrition Assistance Program (SNAP) and Women, Infant and Children Assistance Program (WIC) customers. Cage-free eggs, for example, are not eligible for SNAP purchase in many states. If that is the only option available, SNAP customers will miss out on this important source of protein or else the retailer must take on the rigorous task of getting SNAP eligibility and approval for cage-free eggs.

Knowing that retailers must keep both the economic and ethical needs, wants, and preferences of their customers in mind, the FMI Foundation recently joined forces with the Foundation for Food and Agriculture Research and the Animal Agriculture Alliance to fund consumer research exploring the topic of consumer attitudes regarding cage-free eggs and slow-growth broilers. Jayson Lusk, Ph.D., a food and agriculture economist at Purdue University, led a research team that embarked on two separate studies at the end of 2017: one surveying 2,000 egg consumers regarding their egg purchase thoughts and practices and another surveying 2,000 chicken consumers regarding their understanding, preferences and willingness to pay for slow-growth broilers.

Trying to recreate a scenario that consumers may face in their local grocery store, the study asked respondents to make a series of choices among products that varied in price and other attributes: production practices (cage-free, pasture-raised, slow growth, and conventionally raised), labeling claims, packaging, product color, and appearance. The objectives of the two studies were to determine consumer awareness:

1. Knowledge about cage-free eggs and slow-growth broilers
2. Beliefs about the adoption of cage-free eggs and slow-growth broilers on animal welfare, retail prices, producer profits, environmental impacts, and the trade-offs among these issues
3. Willingness to pay for cage-free and slow-growth attributes relative to other egg and broiler characteristics that may be of importance
4. Responsiveness to information about production practices

The findings from this research were shared with key food and agriculture stakeholders to inform decision making on these issues in the retail setting.

The cage-free egg issue

In recent years a significant number of restaurants, foodservice providers, and food retailers have made public commitments to move to a cage-free egg supply by 2025. Currently, just shy of 17 percent of the egg industry house their hens in cage-free housing systems, and this number includes certified organic eggs, which require a cage-free housing system. That is about 52 million layers out of a 310-million egg-laying population. To meet the demands of the current pledges, about 240 million layers would need to be housed in cage-free systems. This would require more than half of the egg production industry to completely convert housing systems in less than seven years.

From the consumer perspective, there is also an added economic burden with cage-free eggs. In March 2018 the cost of conventionally housed eggs was about 12 cents an egg or about $1.44 a dozen. The cost of eggs produced in cage-free housing was about 20 cents an eggs or about $2.40 a dozen. While activists argue that the cage-free costs will go down when the systems become more prevalent, they fail to factor in that the costs of building all these new systems will have to be recouped (pun intended) by the egg farmer—and that means a higher-priced cage-free egg.

General consumer beliefs about egg consumption

Survey results substantiate why eggs are considered such a popular, customer–attracting grocery commodity. Almost nine out of 10 consumers agreed with the following statements: *eggs taste good, eggs are affordable, eggs are easy to cook, and eggs are healthy*. However, only three out of 10 consumers agree with the statement egg-laying hens are well treated. This low consumer perception regarding the treatment of egg-laying hens is an area of vulnerability and likely accounts for why many retailers felt the need to support the move to cage-free housing.

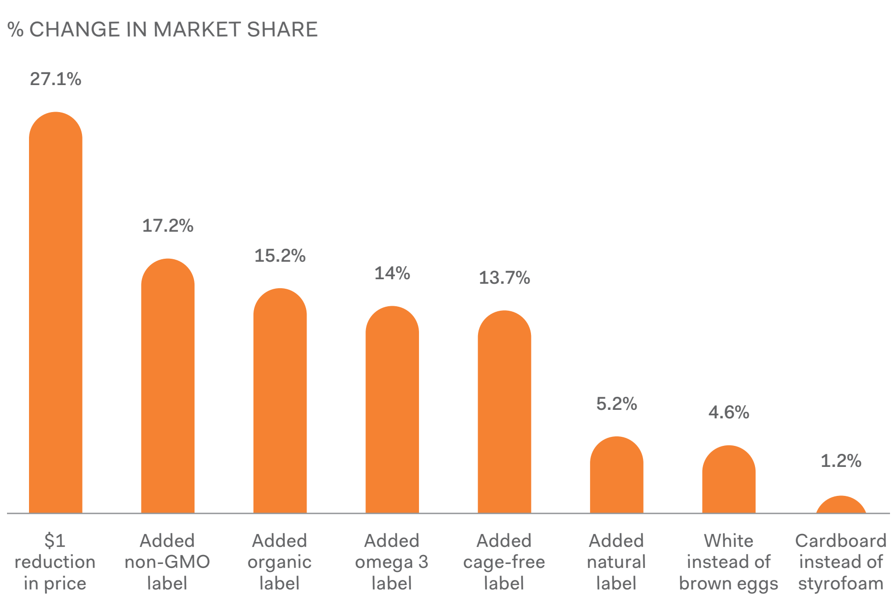
Our research findings regarding the consumption rate of eggs point to a very stable product, with 53 percent of survey respondents indicating their egg consumption has remained the same over the past five years, 41 percent saying theirs has increased, and only 6 percent stating they are consuming fewer eggs.

The egg choice experiment; the consumer willingness to pay for attributes

Through the online survey instrument, participants were given 12 opportunities to choose between two cartons of eggs, each carton bearing different combinations of label claims and offered at various price points. (See Exhibit 1.) From this information, we were able to extrapolate the market share power of each label claim and the amount consumers were willing to pay for each attribute. To our surprise, the most sought-after attribute was *non-GMO* with a median score indicating that most were willing to pay just shy of 50 cents more per dozen for non-GMO eggs. The next most preferred attribute was *organic*, followed closely by the *Omega 3 enhanced* claim: Both attributes had a median score signifying that most would be willing to pay a bit more than 30 cents more a dozen for these products.

The *cage-free* claim came next with most indicating a willingness to pay right at 30 cents more per dozen for this attribute. You may recall, the current differential is just shy of a dollar more per dozen for cage-free eggs. It is noteworthy that the cage-free claim had the largest mean differential, meaning a wider range of scores on the willingness-to-pay (WTP) scale. For instance, a strong majority were on one end of the spectrum in the *0 to 40 cents more a dozen* WTP range, while 25 percent were on the other end of the chart in the greater than *$3* WTP category. This indicates that for some customers the cage-free attribute is **very** important, but the number of customers holding such a deep-seated conviction is low. Given the low scores in the middle of the WTP range,

Exhibit 1: The egg choice experiment: Consumer willingness to pay for attributes



Source: FMI analysis

consumers either care a great deal about this issue or not much at all. There are not many for whom it is a lukewarm conviction. For now, and the foreseeable future, it appears that the majority of shoppers would pay a maximum of 40 cents more per dozen for cage-free eggs.

The egg choice experiment: consumer responsiveness to information

Survey respondents were divided into four equal groups: one group served as the control group and was given no preparatory information about cage-free eggs prior to making their attribute choices; the remaining groups were respectively given information that either supported cage-free housing, was basically neutral, or offered a mildly contrary opinion about the benefits of cage-free housing. In the final analysis, the information shared did not appear to make much difference in respondent opinion and willingness to pay for the cage-free attribute. This low receptivity to information indicates most consumers have already made up their minds regarding the cage-free issue.

The egg choice experiment: effects of limited choice

One other noteworthy finding was how removal of conventional eggs altered the share of consumers choosing to refrain from buying eggs. In each of the 12 egg choice scenarios, consumers were provided the option of "if those were my two choices, I would not buy eggs that day." In the scenario where both conventional and cage-free eggs were available, only 4 percent of the respondents chose the "no purchase" option. However, in the scenario where only cage-free was available, 17 percent opted for "no purchase." It appears that restricting or limiting consumer choice would have an adverse effect on egg purchase. What is not clear is how long-lasting or far-reaching that effect would be.

Consumer beliefs regarding cage-free eggs

Survey participants were asked to evaluate the various attributes – *organic, cage-free, all-natural, non-GMO, Omega-3 enriched* – across the five categories of Animal Welfare, Cost, Healthiness, Safety, and Taste. Consumers gave certified *organic* the highest marks in cost, healthiness, and safety. They gave *cage-free* the highest score in the animal welfare category, indicating that most consumers believe the cage-free housing system to be most beneficial for the comfort and well-being of the egg-laying hen.

Summary of the key findings regarding cage-free eggs

Price remains the most significant driver when it comes to the purchase of eggs, and this should be a matter of concern for those companies who have made a cage-free-only commitment. Though there is room for the cage-free market to grow, it will likely never reach majority market share. While a few shoppers are willing to pay a significantly higher price for cage free eggs, as already noted, the strong majority indicate their willingness to pay for cage-free tops out at 40 cents more a dozen.

This is significantly below the current near-dollar more difference between cage-free and conventionally raised eggs.

Consumers apparently feel well informed about cage-free eggs, have established viewpoints on the subject, and are not particularly receptive to new information.

Broiler chickens – the issue

In 1957, the average broiler chicken weighed only 905 grams. By 2005, due to improved breeding, better feedstock, and enhanced poultry care, the average boiler weighed 4,202 grams. To be clear, this dramatic increase in average broiler weight was **not** the result of genetic modification, but rather natural breeding and better feeding. Some have pointed to this 364 percent increase in average broiler weight as resulting in birds with legbone disorders, unable to support their own body weight, and incapable of displaying natural bird behaviors such as roosting.

Activists have contacted restauranteurs, foodservice providers, and food retailers urging them to commit to standards that – among other things – support the exclusive use of slower-growing breeds of broiler chicken.

The broiler chicken survey

As was the case with the egg survey, the 2,000 participants in the broiler chicken study were asked a series of questions about general consumption habits; inquiries gauging their understanding of industry practices; questions accessing their beliefs about various label attributes; and finally, their options in 12 separate choice tests of packaged chicken breasts, bearing various label attributes and offered at differing price points.

General consumption of broiler chickens

Survey scores registering general consumer opinions about broiler chickens revealed favorable shopper views on the taste, affordability, healthiness, and preparation ease of today's pullets, with all these areas recording "agree" scores in the mid 80s to low 90s. The *chicken is sustainable* score of 69.8 percent was obviously lower, and the *all packages of chicken taste about the same* score of 46.5 percent strongly disagreeing with the statement and only 32 percent agreeing, raises the specter of consumer concern about consistent quality of broiler meat. However, an area of vulnerability for the broiler industry is revealed in the response to the statement: *Meat producing chickens are well treated*. Only 28 percent of consumers agreed with that statement, while 26.6 percent said they disagreed with it.

Consumer consumption of broiler meat appears very stable, with almost half of the survey respondents indicating their chicken consumption rate has remained the same in the past five years, 47 percent stating it has increased, and only 4 percent recording that they've decreased their chicken servings.

Willingness-to-pay results of the broiler chicken choice tests

Analysis of the willingness-to-pay (WTP) for slow-growth broilers reveals a limited range of conviction about this concern, with few revealing deep-seated opinions about the issue. Just over a quarter of consumers indicated they would pay between 0 and 20 cents more a pound for slow-growth broiler meat. Almost 30 percent recorded they would pay between 60 and 80 cents more a pound for a slow-growth product, and the WTP span taps out at $1, with just over 40 percent saying they'd pay that additional amount per pound for the slow-growth attribute. Comparing those numbers to the more than 35 percent who indicated they'd pay up to $3 more a pound for *organic* chicken reveals a concern that is still in its infancy, with limited committed subscribers. (See Exhibit 2.)

Consumer responsiveness to broiler information

Cross-analyzing the willingness-to-pay results with each group's exposure to preparatory information further substantiates that the broiler issue is in the early stages of development. Comparable to the egg survey methodology, the broiler survey respondents were broken into equal groups, with one group receiving no information, the second group receiving pro-slow growth information, and the third group being exposed to an anti-slow-growth infographic.

The results were telling, showing that consumers are receptive to information about this concern and that their opinions are far from being settled. Among those who saw the anti-slow growth infographic, 100 percent registered a WTP of less than 40 cents a pound more for slow growth broiler meat. It should be noted that this was the choice bearing the least amount possible. Among those receiving no previous information, almost 30 percent recorded a less than 40 cents a pound willingness to pay and 70 percent indicated they would pay between 40 cents and $1 more for a pound of slow-growth broiler meat. Those who were presented pro-slow information split almost evenly to into two groups: those whose WTP capped out at $1 more per pound and those willing to pay more than a $1 more per pound.

Very seldom in research is the data so clear, but the results here can't be confused. Whatever information the respondent was given – either pro or con – was persuasive and shaped their responses.

The relative importance of broiler chicken attribute labels

Interpreting the impact on market share of the various labeled attributes creates the pecking order of consumer preferences. The attribute with the greatest market share impact was *$1 reduction in price*; addition of *non-GMO label* was a distant second; *organic* and *no-hormone label* almost tied for third; and the slow-growth label trailed in fifth place but was kept out of the cellar by the *no antibiotics* attribute, which came in sixth.

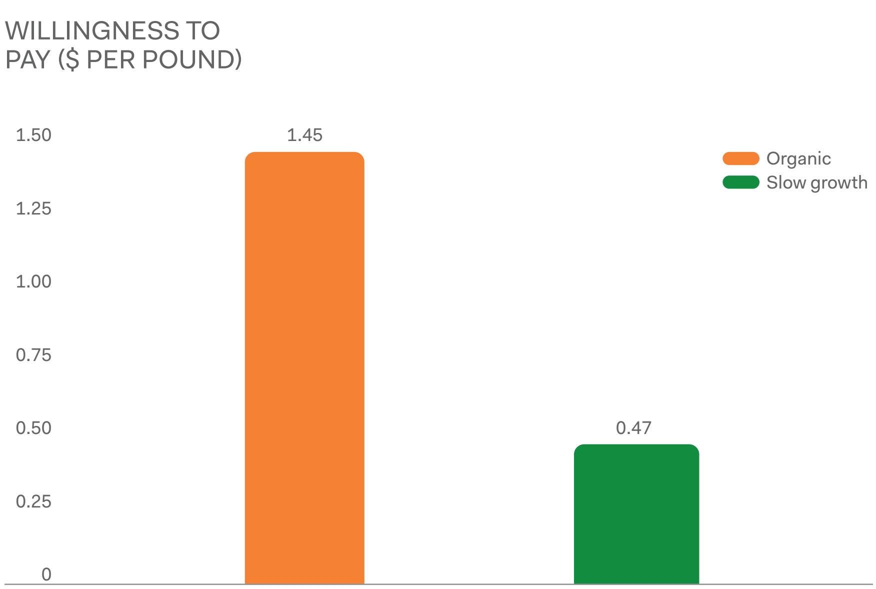
As could be expected, regardless of the information they received, the market-share percentages deceased as the price increased for slow growth broilers. The most dramatic plummet came in the no-information group: If there was no cost difference for slow growth broiler, about 60 percent indicated they would choose it; however, as the price rose, that number steadily declined, with only 30 percent saying they would select slow-growing broilers if the option was $1 more per pound.

The telling results of the broiler chicken belief questions

Survey respondents were asked a series of questions meant to test their knowledge of broiler industry production practices. The results reveal a startlingly huge opportunity for the chicken industry to improve consumer awareness of broiler handling and care practices. Fewer than 3 percent of those surveyed knew that all broilers produced in the U.S. are raised in a cage-free housing environment. Only 12 percent were aware that meat producing chickens in the U.S. are NOT fed added growth hormones. When asked, "How long does the typical meat producing chicken live", the most frequently picked answer was *about 12 weeks*, which is twice the six-week life span of the average broiler.

Perhaps the most revealing results came when consumers were asked to evaluate the *organic, no-antibiotic, all natural, non-GMO,*

Exhibit 2: The broiler chicken choice test: Consumer willingness to pay for slow-growth broilers



Source: FMI analysis

no hormones added, and slow-growth claims according to these qualities: healthiness, cost, taste, safety, and animal welfare.

For the control group, *organic* outpaced the other attributes, taking top scores in the healthiness, cost, safety, and animal welfare categories. This group also rated the slow-growth attribute as last in the healthiness, taste, cost, and safety categories and only granted it a third-place position as providing better animal welfare for the broilers.

However, there is a different story among the group exposed to the pro-slow growth information that touted the better animal welfare features and improved taste qualities of the slow-growth attribute. This group rated *organic* highest in the cost and safety categories, but in line with the information they had been given, the group named the *slow-growth chicken* as the top vote-getter in the taste and animal welfare categories.

Summary of the key findings regarding slow-growth broilers

When it comes to broiler purchase decisions, price remains the significant driver for most consumers.

Significantly, the consumer has a low level of knowledge about broiler production in general and is particularly unfamiliar with slow-growth chickens. The research conclusively shows that consumer choices and willingness-to-pay for slow-growth are sensitive to information. All indications are that the consumer is something of a blank slate regarding broiler production practices and will be swayed by whatever compelling case they are exposed to.

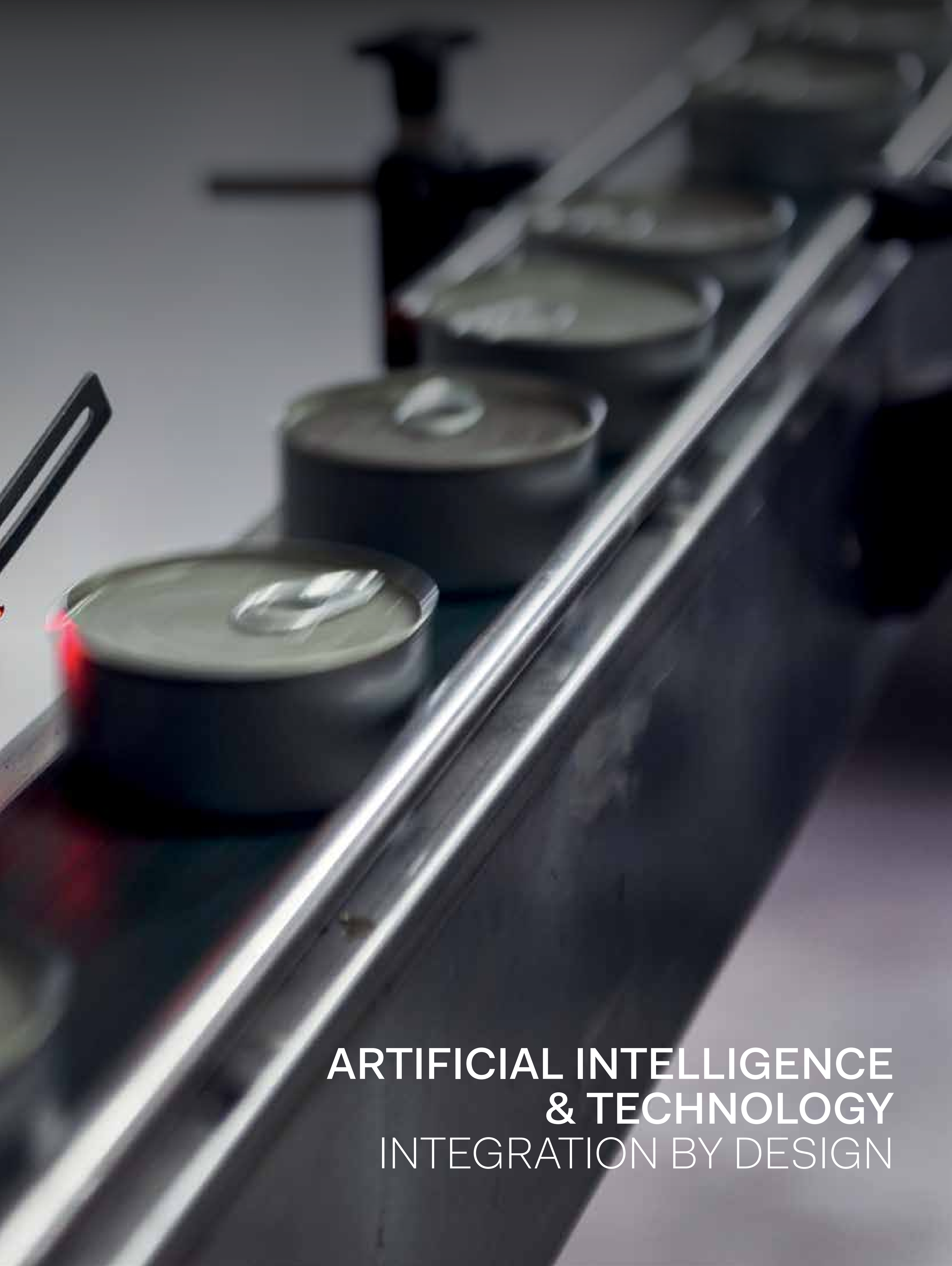
Finally, most consumers do not currently have a positive disposition toward slow-growth claims. It simply is not a term that resonates with the most shoppers or holds positive animal welfare connotations for them.

Conclusion

The chicken and egg issues for the food retailer remain far more complex than simply a matter of which came first. The research funded by FMI Foundation, the Foundation for Food and Agriculture Research, and the Animal Agriculture Alliance regarding consumer perceptions of cage-free eggs and slow-growth broilers point to a number of complicated chicken and egg considerations, the top two being.

- Retail companies that have made a cage-free only commitment should take a serious look at the fact that the cage-free egg market may never reach majority market share
- The current low level of consumer awareness regarding broiler production is an open opportunity to inform shoppers about all the considerations that must be explored in determining a position about slow-growth chickens

When considering such complicated issues as animal housing systems and production methods, food retail decisions must carefully view the concern from multiple vantage points. This process is made more difficult when facing pressure from activist groups, but the many different perspectives of animal comfort, food safety, worker safety, system costs, supplier consequences, and the ultimate cost and effect upon their customer should all be factored into the retailer's decision-making equation.



ARTIFICIAL INTELLIGENCE & TECHNOLOGY

INTEGRATION BY DESIGN

Thomas Kochan

AI Integration – A Better Approach

Robotics, artificial intelligence, and machine learning—these technologies are no longer separable, and increasingly must be integrated into a digital strategy alongside human workers. For many retailers and consumer goods manufacturers, this means moving from the evaluation of individual elements and solutions to an integrative approach to the entire technology ecosystem.

We are at the brink of fundamental technological breakthroughs that have long been predicted. The most striking innovations—such as autonomous driving, fully automated manufacturing, and home care delivered by robots—combine robotics, artificial intelligence, and machine learning. AI, for example, has a role as a stand-alone technology, but it is more often just a piece of a more complex technology strategy.

Significant changes in design and implementation will be needed if the technology is to realize its full potential. My recent research, in collaboration with Oliver Wyman and Mercer, has identified how to better manage the digital transformation process. In the past, a sequential approach dominated: vendors developed products, sold them to CTOs or CIOs through what were often prolonged negotiations (neither side fully understanding the other), and then managers struggled to integrate the new technology with their workforce to achieve business objectives.

Now, our new approach features an integrated model that links the design of a digital strategy with the design of new workforce practices right from the beginning. We believe this new model gives companies a better shot at successful transformation and improved productivity. (See Exhibit 1.)

In the new integrative model, collaborative design—engaging vendors, workers, and managers—merges technical and business knowledge and applies it directly to business operations. Design considerations include how technology can augment human inputs or fully replace it to allow for higher-order human inputs.

WHERE DOES AI WORK?

Consider the use cases in which artificial intelligence can substitute for human decisions. (See Exhibit 2.) AI serves as a successful substitute in domains with frequent, structured, and specific tasks. Because using AI requires training, it works better in areas where there are a greater number of events or data points. Events with more structure and specificity also provide for an easier learning process.

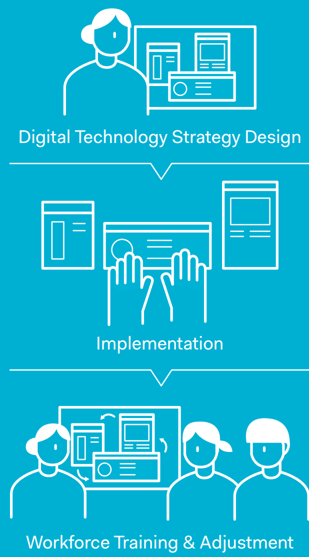
Within the realm of insurance, for example, AI is suitable for evaluating health claims in countries with standard codes, because those claims are both frequent and structured. Conversely, AI is less suitable for making decisions on claims for serious bodily injuries, which require more human judgment. In these situations, however, AI might help provide data and information to support human judgment and thereby augment work.

In banking operations, there are a number of repetitive tasks involving data entry and re-entry, particularly for compliance, reconciliation, and accounting purposes. Robotic process automation (RPA), a form of AI, uses software bots for repetitive, rote tasks. The bots function like humans, as virtual users interacting with screens and applications. They primarily perform repetitive, manual, simple cognitive tasks.

As data volumes increase, it can become prohibitively time-consuming for humans to process it. Thus, RPA is increasingly deployed to free up human capacity from standard tasks and processes and direct it toward more complex and analytical tasks. And, of course, humans can manage the technology to mitigate the risk of error and intervene in the event of an RPA system breakdown.

Exhibit 1: Two models for digital transformation

TRADITIONAL APPROACH
SEQUENTIAL PROCESS



KEY FEATURES

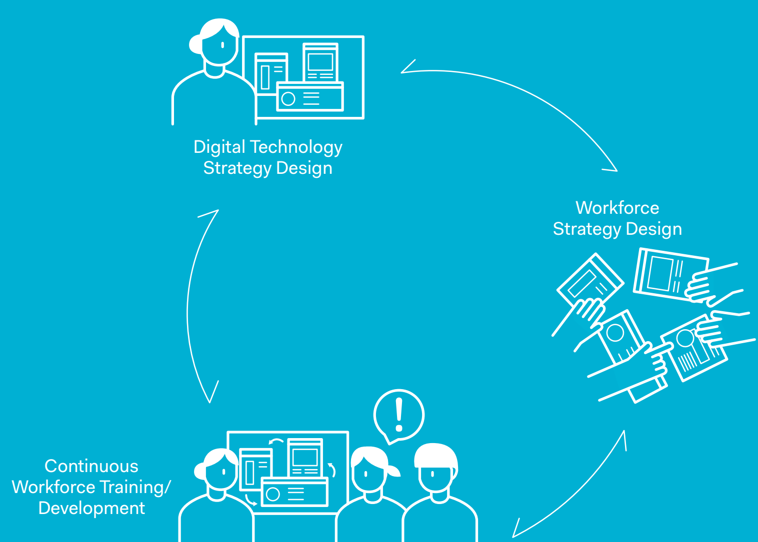
1 Sequential process in order to react to changes in the digital design

2 Reactive approach to retraining and rebalancing the workforce as technology is introduced

3 Vendors and top managers define the technology solutions, and HR manages the workforce adjustments

4 Top-down workforce strategy definition based on employee capacities and business unit alignment

NEW APPROACH
INTERRELATED PROCESS



KEY FEATURES

1 Integrated process directly relating workforce strategies with business strategies

2 Continuous and multidimensional training to prepare for new technologies and embed optionality

3 HR and the workforce help to define the problem, solution options, and workforce adjustments

4 Interrelated workforce strategy development building on worker engagement

Source: Oliver Wyman analysis

Cautionary Tales: GM and Tesla

As vendors and internal IT developers recognize the importance of using collaborative design to create complementary technologies, they will produce more targeted, useful solutions. Consider the use of AI as a piece of a more integrated process with machine learning and robotics. Too often, firms have sought to automate their way out of productivity and labor problems. In the 1980s, for example, General Motors spent more than $50 billion on robotics in an effort to catch up with more efficient Japanese producers. At the end of the decade, GM remained the high-cost producer because it failed to upgrade its workforce and change its work practices in ways needed to make the new technologies pay off. Toyota, by contrast, achieved world-class levels of productivity by taking an integrated approach—introducing new technologies gradually, while simultaneously investing in team-based work systems and high levels of workforce training.

Ironically, in the same plant in Fremont, California, where Toyota achieved high levels of productivity, Tesla is now following a total automation strategy but failing to meet its production goals, falling prey to the same mistake GM made 30-plus years ago. Not surprisingly, workers at the Tesla factory are trying to organize a union in protest of what they see as persistent safety problems, overwork, and low wages. Investors are worried the company's cash reserves are running low.

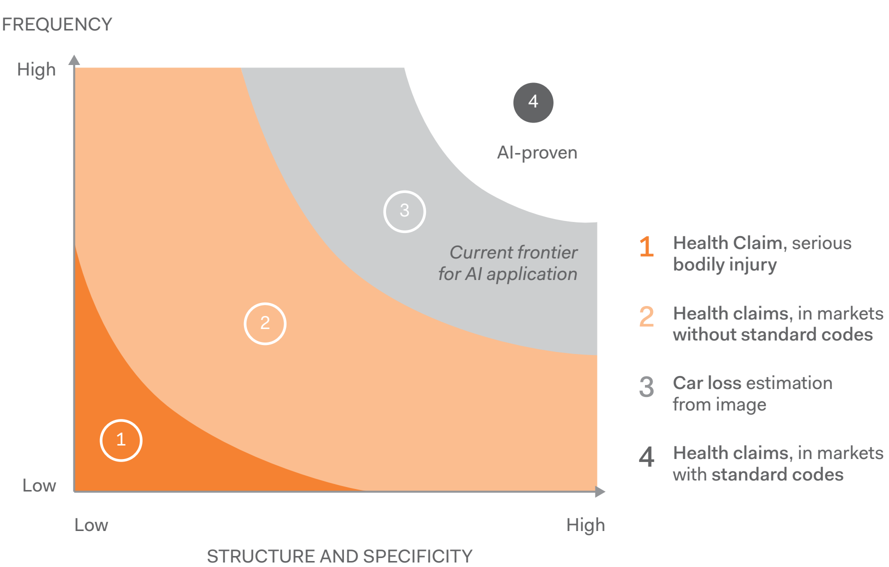
COLLABORATIVE TECHNOLOGY DESIGN

Conversely, when technology developers and designers proactively consider and engage the workforce as part of a collaborative-design process, the resultant solution is more likely to fit the needs of the business and the specifications of the user.

Cisco, for example, applied the principles of user-led design in a 24-hour "breakathon" intended to break down and rebuild its HR program. Over 800 employees, 65 percent from HR and the rest from services and engineering, took part in the event, with offices around the globe participating in a "follow-the-sun" manner. Taking inspiration from hackathons, employees split up into small teams to identify problems they had experienced while doing their job and pitch ideas for solutions.

Exhibit 2: Where does AI work?

MATRIX SHOWING FREQUENCY AND STRUCTURE OF EVENTS



The hackathon resulted in several solutions across talent acquisition, onboarding, development, and leadership. One such idea resulted in the creation of YouBelong@Cisco, a mobile app that guides new employees and their managers during their initial weeks of work.

One CPG firm I looked at also applied the technology-integration mindset to its recruiting and onboarding process. They post targeted job advertisements on social media. Potential applicants who click the job descriptions are brought to a site where they can apply for the job with information sourced from their LinkedIn profile. From there, skill assessment is conducted through a series of online games. Applicants who pass that stage submit prerecorded video interviews through a website or app. At each phase, AI algorithms screen the applicants and narrow down the pool of potential hires who qualify for an in-person interview. Once hired, candidates can sign their offers digitally, access the onboarding system, and connect digitally with other recent hires.

From start to finish, the use of digital tools and advanced analytics for recruitment and onboarding has streamlined the recruiting process from four months to two weeks and reduced recruiter screening time by 75 percent. Candidates benefit from a quicker process and also less human bias, as AI has proven to be more objective.

The guiding principle is not to throw technology at a problem: that's likely to create even larger, unforeseen issues. The guiding principle should be to look for elegant solutions to problems and ask how technology can help workers achieve the end goal faster and cheaper. It's a mistake to perceive technology as unmalleable. It is malleable, and, when shaped collaboratively to augment human inputs, it is much more effective—as are the humans who are relieved of tedious, repetitive work.

General-purpose vendors often lack knowledge of industry-specific work processes. This gap in understanding can create resistance and bottlenecks when developing technology solutions. The solution lies in partnerships: between technology vendors and business managers, between humans and machines, and between developers and the frontline workers, who will be the ultimate end users.

This article first appeared on BRINK.

Wai-Chan Chan

James Yang

Partnerships: Key to Success in the Online Age

Brick-and-mortar retailers worldwide have been impacted by e-commerce, but the effect in China appears to be bigger and developing faster. Though just 11 percent of China's population had internet access in 2006, today a third of the population – more than 460 million Chinese – shop online. Even more significant is the willingness of Chinese consumers to go online to buy food – the largest retail segment. Encouraged by densely populated cities that favor rapid, efficient home delivery, nearly 10 percent of the Chinese population shops for groceries online regularly, compared to just 3 percent in the United States and 6 percent in the United Kingdom, one of Europe's highest rates.

There are a few lessons for American retailers to draw from the Chinese experience, but one of the most important may be the reliance on partnerships and larger alliances with native online platforms. Brick-and-mortar retail in the United States is significantly stronger in both capabilities and financial standing than the typical Chinese physical player. And yet from the smallest independent operator to the larger multiregional chains, retailers should be considering whether they are taking advantage of the potentials of partnership to enhance customer experiences.

The other reason to watch China closely is that significant room for expansion remains. Already, an estimated 5 percent of Chinese shoppers buy groceries exclusively online, indicating the potential for more people to abandon physical stores. New shopping formats – dubbed O2O, or online-to-offline – are being rolled out. These combine online shopping's convenience and wealth of information with the social experience and physical contact with products that people enjoy in traditional, brick-and-mortar stores.

TWO COMPETING MEGA-ECOSYSTEMS

The innovations are not occurring in a haphazard way; they are being orchestrated by two emerging retail empires led by e-commerce giants. One is centered on Alibaba, which owns two of China's largest e-commerce platforms, Taobao and Tmall, as well as an electronic payments system, AliPay. Its rival is an alliance between JD.com, a leading online retailer, and Tencent, an internet and digital-technology

Exhibit 1: Empire of JD/Tencent and Alibaba

	EXPERIENCE	ONLINE RETAIL	PHYSICAL RETAIL	ONLINE INFLUENCE	OFFLINE INFLUENCE	SOCIAL
JD/ Tencent	Mobike, QQ University, Tencent Cloud, QQ Gaming, DiDi ChuXing	Vip.com, Little Red Book, YHD.com, Zhuanzhuan	Walmart, Yonghui, Wanda, Carrefour	Tencent Video, Dianping, Sogou, QQ Music, WeChat Pay	WeChat Pay, JD logistics, Meituan	WeChat, QQ, LY.com, Qzone, Pengyou.com
Alibaba Group	Ali Health, Taobao Education, Amap.com, Xiami, Eleme, DiDi ChuXing, Ali Cloud	Etao, Taobao, Hema, Tmall, Suning.com	Intime Retail, Hema, New Huadu, Bailian, Century Mart, Sanjiang, Sun Art	MGTV, Yicai.com, 36Kr, SCMP, Alipay	YTO express, Cainiao, Alipay, Ali LST, Koubei	Sina Weibo, Momo, Qyer.com, AcFun, Youku

Source: Oliver Wyman analysis

conglomerate that owns WeChat, China's most popular social app. Together, they process 97 percent of mobile payments, providing them with valuable data on customer spending habits. Recently, Alibaba and Tencent/JD.com set their sights on physical retail. They have acquired stakes in six of China's top 10 hypermarkets, the country's biggest electronics retailer, one of the largest department stores, and the largest commercial property and entertainment conglomerate.

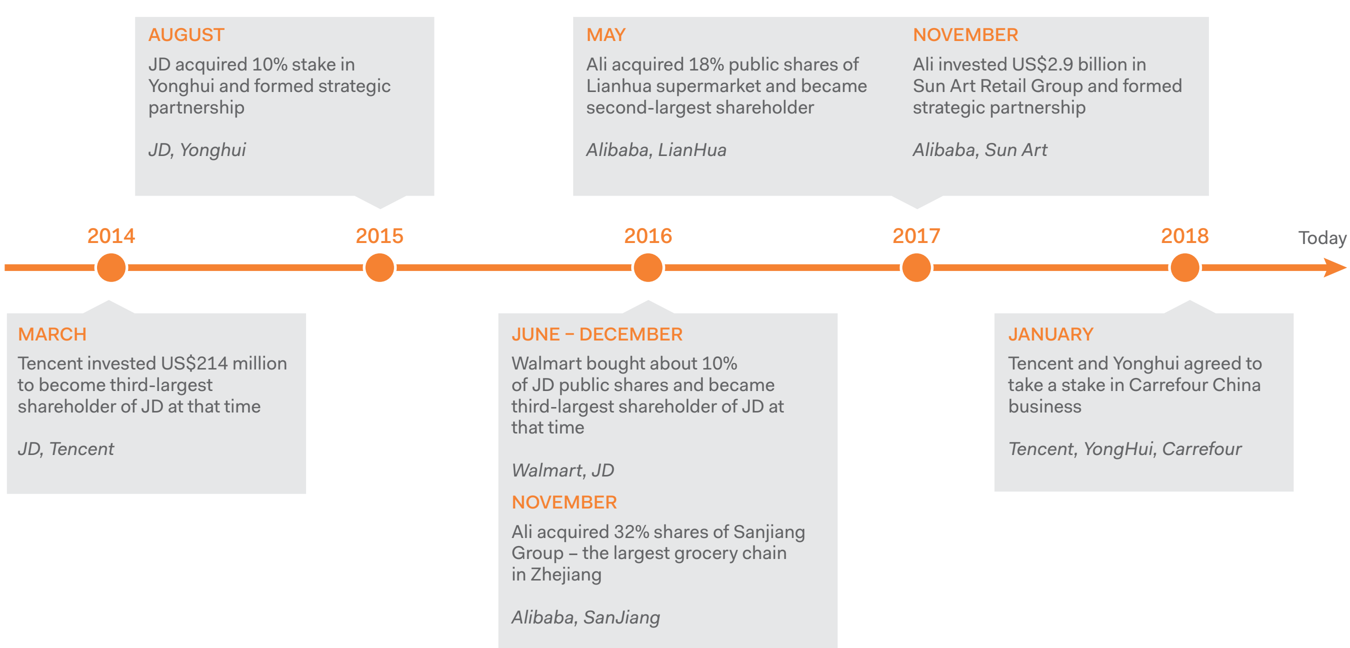
In contrast to this ambitious expansion, traditional grocers are struggling. Their sales have declined in real terms over the past three years, while the total number of stores is lower than five years ago – in spite of China's annual GDP growth having remained above 6 percent. The best survival plan for these stores: Ally with the very e-commerce giants that are invading their space. Both Alibaba and JD.com have developed logistics systems based on centralized, large-scale networks of warehouses, which can replace traditional distribution. Their payments and marketing systems can easily be scaled to large networks of physical stores. They can therefore help traditional retailers attract new customers and become more efficient.

BIG-BOX RETAIL EXPERIMENTS WITH E-COMMERCE

Stores are finding the new environment challenging, because they typically operate under franchise models in which store operations and products are not coordinated effectively. Survival necessitates drastic change, but we believe change is unlikely under current setups. Most stores already operate with thin or negative margins and may not have sufficient funds to invest.

Big-box retailers have tried their own O2O and online shopping services. Hypermarket chain RT-mart launched its own B2C online platform Feiniu.com in 2014, while Carrefour China tried a similar system a year later in Shanghai. But these and other initiatives failed. One reason was that traditional brick-and-mortar stores lack adequate distribution capabilities: Fresh food typically requires 30-minute delivery, which is only possible with a sophisticated and large-scale logistics operation. Big-box retailers have tended to invest more in marketing and promotion, and focused less on logistics. Their store layouts are intended to guide shoppers towards products, rather than to make it easy to pick items for delivery.

Exhibit 2: Key M&A/partnership deals in China grocery retail



Source: Oliver Wyman analysis

Moreover, picking for home delivery requires additional storage space, usually more than exists in typical supermarkets. Although big-box retailers are starting to build their own logistics systems, their capabilities are still far behind those of online natives such as Alibaba and JD.com. Another reason for the big boxes' difficulties is that they typically only generate O2O traffic from their own platforms, while internet and e-commerce companies bring in customers through multiple contacts in their daily lives, including payment services, social media, and online purchases.

In contrast, partnerships with the tech empires benefit from complementary strengths, as technology from the online retailers helps the brick-and-mortar stores generate incremental revenue. For example, Alibaba installed shelves from its Tmall Supermarket online grocery service in some RT-Mart branches. The shelves direct Tmall's best-selling products to RT-Mart stores in categories such as snacks, household essentials, and beauty products.

From early 2018, RT-Mart has been offering one-hour delivery for these products to locations within roughly two miles of the stores in six cities. Alibaba has also contributed features such as mother-and-baby areas.

Next, Alibaba plans to help RT-Mart optimize its in-store O2O infrastructure. All of the more than 300 RT-Mart stores will be integrated into Taoxianda, the Taobao mobile app's fresh-delivery section. This will direct some users to RT-Marts, while customers will be able to order fresh products from RT-Mart through Taoxianda. RT-Mart operations will use Alibaba's database of historical consumer purchasing data, so that stores can match their product lineups to consumer tastes.

Walmart has a strategic partnership with JD.com and is using its O2O unit JD Daojia as the service platform for more than 150 Walmart stores in order to attract online traffic. JD.com's strong delivery capabilities will offer one-hour delivery. Planned upgrades to better support O2O services include picking areas in warehouses and a larger space devoted to fresh food. Wi-Fi will be available, so customers can self-checkout via a feature in the WeChat app.

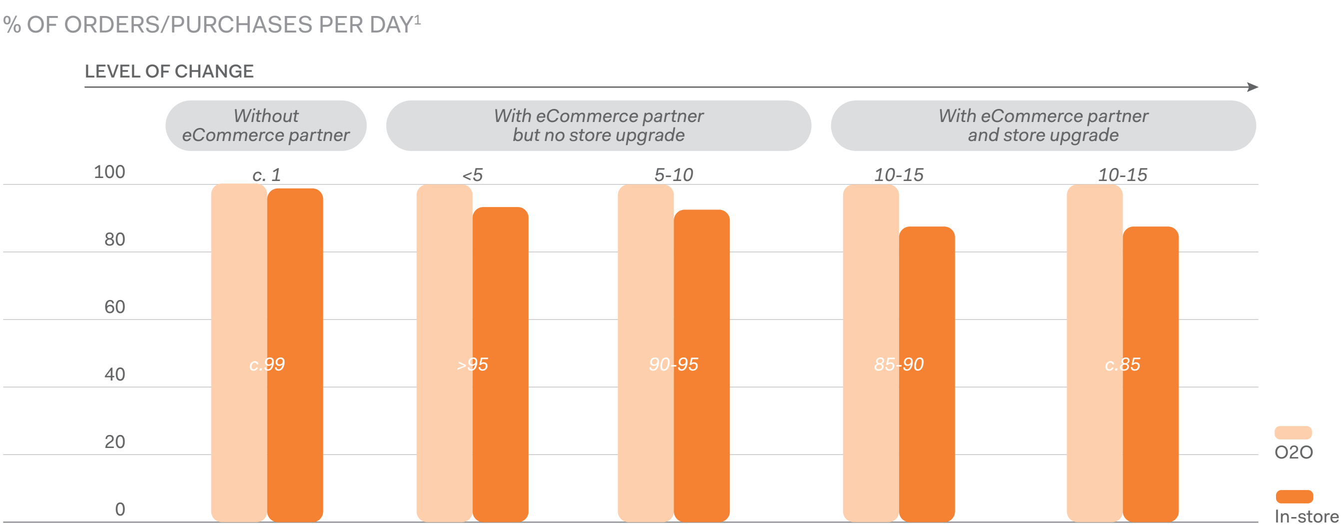
In Shenzhen, Walmart has opened the first of a new chain of "smart" supermarkets, Huixuan, with an app-based shopping system in which customers scan and pay for items with their phones. The new stores will be relatively small – approximately 10,000 square feet – but have space for ready-to-eat food. Delivery is being handled by JD Daojia and is available in less than 30 minutes within one mile of the first store.

Other recent strategic alliances include the January 2018 agreement by Tencent and Yonghui Superstores to take stakes in Carrefour China, as part of a plan for smart retail, mobile payments, and data analysis.

MOM-AND-POP STORES REINVENTED

Smaller chains, too, can benefit from the e-commerce giants' systems and transform from old-fashioned corner shops into slick, digital convenience stores.

Exhibit 3: O2O business contribution in majory grocery retailers

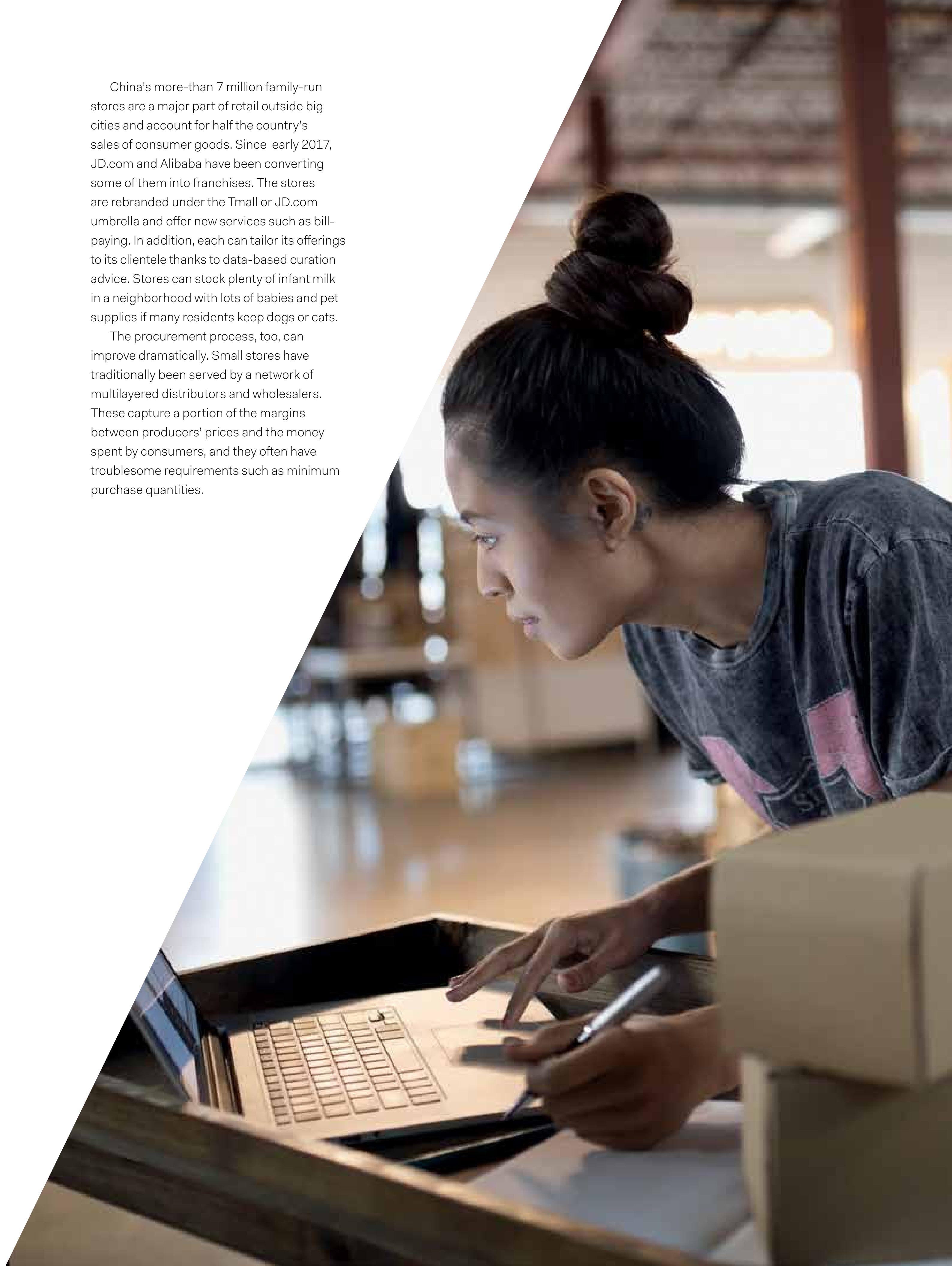


	Carrefour (before recent acquisition)	Walmart	Sanjiang[1]	Super Species[2]	RT-mart[3]
O2O ORDER # PER DAY	c.50	c.100	150-200	c.300	c.800
FORMAT	Hyper	Hyper	Super	Super	Hyper
ECOMMERCE PARTNER	None	JD	Alibaba	JD	Alibaba
O2O PLATFORMS	Carrefour/ Meituan	JD Daojia mainly	Meituan mainly	Yonghui/ JD Daojia	RT-mart/ Meituan

1. Not all stores operate O2O
2. The online order # only accounts for c.5% in Yonghui Bravo Luban Rd. Store in Shanghai
3. A new format store located in Yangpu, Shanghai
Source: Primary research, store visits, desktop research, Oliver Wyman analysis

China's more-than 7 million family-run stores are a major part of retail outside big cities and account for half the country's sales of consumer goods. Since early 2017, JD.com and Alibaba have been converting some of them into franchises. The stores are rebranded under the Tmall or JD.com umbrella and offer new services such as bill-paying. In addition, each can tailor its offerings to its clientele thanks to data-based curation advice. Stores can stock plenty of infant milk in a neighborhood with lots of babies and pet supplies if many residents keep dogs or cats.

The procurement process, too, can improve dramatically. Small stores have traditionally been served by a network of multilayered distributors and wholesalers. These capture a portion of the margins between producers' prices and the money spent by consumers, and they often have troublesome requirements such as minimum purchase quantities.



The two e-commerce giants have thus developed ordering systems that store owners can operate on their smartphones: Alibaba's Ling Shou Tong (LST) and JD.com's Xin Tong Lu (XTL). Goods arrive from centralized warehouses in less than three days and often on the day the order is placed. That contrasts with delays of weeks for traditional wholesalers. Alibaba and JD.com will capture new customer data and insights through these expansions. They are also likely to dominate the growing market for ordering systems, which could be worth around $58 billion over the next five years.

Weijun Supermarket is a family-owned store in Hangzhou that in 2017 became the first franchise in a planned chain of Tmall corner shops. The store had been run down, and products were presented in an unattractive and hard-to-find manner. After renovation, the format is now similar to that of chain convenience stores such as FamilyMart and 7-Eleven, with a stable assortment of products laid out so that shoppers can find things easily.

Alibaba's agreement stipulates that franchises must contain a shelf of Tmall products and purchase products worth at least $1,400 a month via LST.

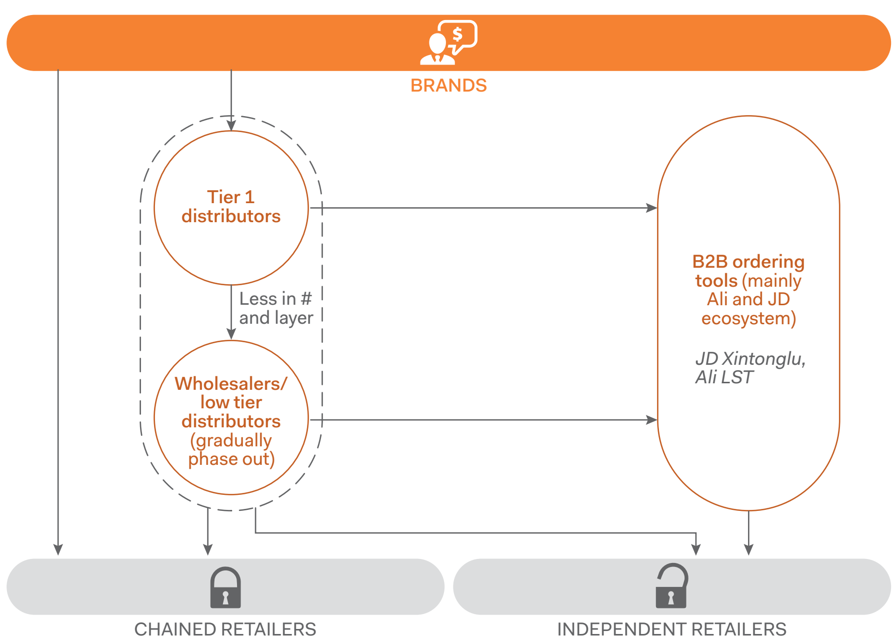
In the case of Weijun, about a third of the assortment comes from LST, giving it products that have proved themselves as online best-sellers. These, plus the Tmall brand, raised Weijun's profile, and it soon achieved sales growth of 45 percent and a 26 percent increase in foot traffic.

The two alliances have slightly different strategies. Tmall has announced plans to open 10,000 franchises by 2019, mainly in tier-2 cities and is focusing on store operations: The floor area must be over 500 square feet and the staff must be trained. But JD.com is targeting all kinds of cities, as well as rural areas, and hopes for one million stores by 2021. Its selection criteria for stores are less stringent: JD.com will provide the products and put its brand on the stores, but décor and logistics are covered by the franchises.

EMPIRES OF THE FUTURE

Some leading convenience stores in China should be able to survive on their own in the short term. 7-Eleven and Lawson, for instance, will continue to benefit from impulse buying. Moreover, they still have room for expansion to meet unfulfilled demand in

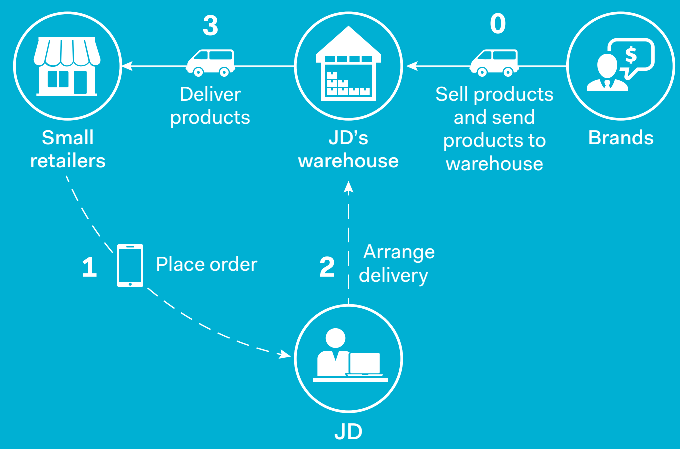
Exhibit 4: Disruption of traditional distribution model with B2B ordering tools



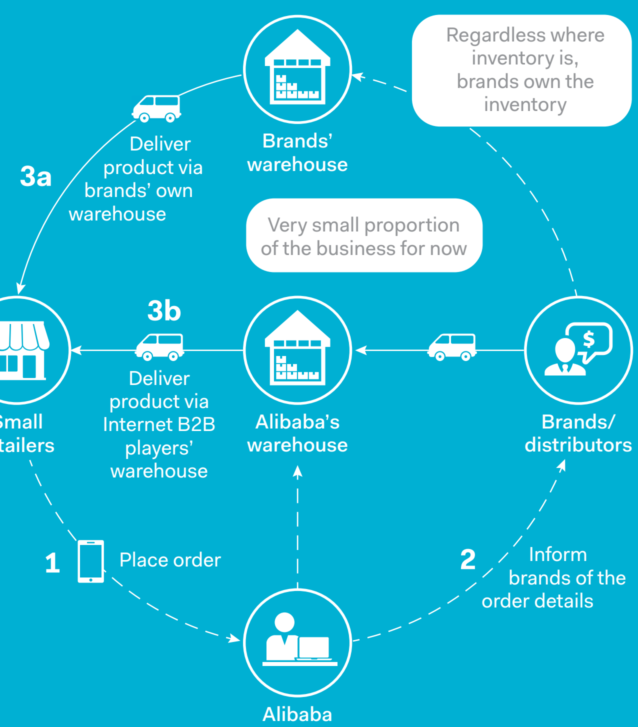
Source: Oliver Wyman analysis

Exhibit 5: JD Xin Tong Lu vs. Alibaba Ling Shou Tong

DIGITAL SELF-OPERATED RESELLER: JD XIN TONG LU



DIGITAL PLATFORM: ALIBABA LING SHOU TONG



KEY: INFORMATION FLOW PRODUCT FLOW

MAJOR DIFFERENCE OF TWO MODELS

Stock ownership (working capital management)	JD	Brands
Level of transaction visibility to brands	Mid-depending on JD' willingness to share information	High
Decision power of assortment and pricing	JD to decide	Brands to decide

Source: Primary research, Oliver Wyman analysis lower-tier cities. But over the long term, even their growth will stagnate, and they will come under threat from family-run stores revived in the franchise networks of JD.com and Alibaba.

New O2O retail formats will increase the pressure. Many large supermarkets worldwide now offer online services in parallel to their physical supermarkets, so that customers can order via a website and have food delivered. Alibaba is going further, with a network of Hema stores where customers use their smartphones to see product information and pay. They can choose to have their purchases delivered to their homes, or even to eat some of their food in the store.

Early signs indicate that O2O will go beyond an interesting experiment and significantly change the retail landscape. Hema stores are already attracting young, wealthy, tech-savvy shoppers, a coveted group. Though they are expensive to set up and run, the O2O contribution has boosted productivity, and they should soon be able to break even. We believe there is potential for at least 1,000 stores in major cities with total revenues of $29 billion.

Moreover, the two empires' domination of mobile payments gives them additional expertise and access to data. Mobile payments are already used for 35 percent of grocery purchases, and even when customers shop outside the big e-commerce platforms, they can still be a valuable source of data. The empires learn where, when, and what customers are buying, as well as which websites they like to visit, the apps they use, and whom they follow on social media.

To facilitate these combinations of e-commerce and traditional retail, the groups have carried out a wave of acquisitions and partnerships over the past four years. Alibaba has made strategic investments totaling $21 billion in retail alone in just the past two years. The two empires already account for around a tenth of grocery retail, and these plays will attract more consumers through different activities and channels. Their share of grocery shopping could increase to around 30 percent over the next five years, at which point it could be worth an estimated $58 billion in gross merchandise value.

FACING THE CHALLENGE

Traditional Chinese retailers need to plan the best way to function in a retail world dominated by the two empires. The first step is to figure out how a strategic alliance can leverage the empires' tools and platforms. These will include ordering and payment systems, as well as data analytics that use customer transaction data to facilitate product selection and inventory management. Eventually, stores will be able to integrate their online and offline businesses.

Brands, too, need to engage the new tech empires. Just as anchor tenants in malls get preferential treatment thanks to their role in attracting shoppers, brands should establish themselves as part of store networks' core propositions, so that they benefit from prominent display and favorable financial terms. In the current system, the intermediaries that supply small stores make it hard for brands to ensure that their products – and only genuine products – find their way onto shelves and that they are appropriately priced. Working with the new tech giants could help to fix these problems and make distribution more efficient. At the same time, brands should maintain relationships with other distributors – if these survive – to avoid being completely dependent on the e-commerce giants.

EMPIRES IN AMERICA?

We have yet to see the same cross-business empires form in the United States, and indeed, it may never happen. However, technology platforms and logistics platforms have been signing more and more retailers into their own functional ecosystems. Retailers tend to view these partners as service providers, and the partners in turn act as such.

Looking to China shows not only how important the partnerships are to retailers' success, but also what it looks like when the technology players drive the agenda. To survive and thrive, incumbent retailers need to find ways to partner or co-exist while continuing to own the customer relationship.

WORKFORCE
PLANNING FOR TOMORROW, TODAY

Nick Harrison

Better but Fewer Jobs

Today, most jobs in retail are still related to its traditional role of distributing products through stores. The work involves transferring goods from warehouses to stock rooms and from stock rooms to shelves; the tasks are typically low skill and often low agency, with a high degree of standardization and control. These jobs make a significant contribution to most economies, and retailers are the source of a significant proportion of entry-level jobs. Furthermore, retail jobs tend to be distributed around a country, often providing employment in places that offer few alternatives. For this reason, job losses from the collapse of traditional stores and chains have been a concern in many countries—and the shift to online sales is often seen as the culprit.

However, the idea that further growth in e-commerce will destroy jobs may be a red herring. In most sectors, selling online typically does mean fewer jobs compared with running stores—particularly if some of these stores are underperforming. But some of the biggest growth in online penetration from now on will come in the food industry, where many retailers are taking on labor-intensive item gathering and distribution work that customers previously did themselves and for free. The effect can be seen in the cost structures of pure-play online retailers such as Ocado, which, despite significant efficiencies at the head office, is less labor-efficient overall than physical incumbent competitors such as Sainsbury's. Moreover, online giants in both the food and nonfood sectors are now building a physical presence, adding jobs in the process.

What will remove jobs across the retail sector is task automation, a major trend in many industries. In particular, automation will hit low-skill store and supply-chain jobs, as well as repetitive tasks in head offices. The first casualties have been at supermarket checkouts, where a single employee can staff between four to six automated self-service terminals. Task automation will often be led by disruptors. It is no surprise for example that online supermarket Ocado is leading the pack in the automation of warehouses, or that Alibaba was fast on the heels of Amazon Go with its own fully automated convenience store, Tao Café. Traditional retailers will have to follow quickly in order to compete.

We see a silver lining, however, in the higher-skill, higher-agency jobs that will be created by many of the new business models we predict to grow. To stay competitive, retailers will have to improve productivity and drive out routine tasks—and, hence, lower-paying jobs—from the system. At the same time, completely new jobs will be created; for example, delivering packages to customers' front doors, where previously customers would have picked them up from a store themselves.

Product businesses will rely on expert teams of creative designers and skilled sourcing managers. They will also need strong frontline connections with customers to receive and analyze feedback. Choice intermediaries are likely to rely heavily on technology to provide customers with large numbers of high-quality recommendations, but they will also need a small number of highly skilled staff, for example, to direct algorithms and provide human advice on top. As these intermediaries' function is entirely new, so too will be these jobs. If choice intermediaries became a $40 billion industry across multiple retail sectors and had the same revenue per employee as Expedia or pure-play online apparel platform ASOS, this would create more than 80,000 high-skill jobs in the United States alone. Magnetic platforms, too, will likely create new, high-skill technology jobs.

Customer experience champions will need skilled store staff that may also use technology, for instance, to look up relevant product specifications or rapidly supply expert advice. Digital chat—which has long been used to field routine customer service queries—will also require remote salespeople who enhance the online shopping experience by offering high-quality advice. An example is the Gearheads at Backcountry.com. Fulfillment intermediaries may one day rely on automated delivery, but until then they will need a relatively large number of employees to pick products, pack them, and deliver them to customers' homes. And some will differentiate themselves by deploying drivers on stable routes, so they can get to know the customers.

These changing labor demands mean that retail jobs in the future will, on average, be more interesting and more rewarding. But the trend could pose challenges for society, as retail has long provided highly localized, entry-level jobs with relatively flexible hours. Other labor-intensive sectors, such as catering, and jobs requiring a human touch, such as social care, may well benefit from the increased labor supply, but only if people are able to retrain and are given support to make the transition.

HOME DELIVERY PRESENTS NEW ENVIRONMENTAL CHALLENGES

The growth of online shopping—and hence home delivery—has increased the number of delivery vehicles on the streets and led to a corresponding rise in emissions of carbon dioxide and pollutants, as well as in the noise and hazards caused by the extra traffic. On the other hand, home delivery—particularly of groceries—typically means fewer individual shopping trips by car. That said, online shopping has taken off fastest in cities, where customers are more likely to use public transport anyway. The net results of these effects are not yet clear, and they may vary between countries and between urban and rural areas.

Still, there is clearly significant potential for reducing waste. Now, multiple vans from different retailers often serve the same household on the same day, while a different set of vehicles serves the neighbors. Over time, new fulfilment intermediaries will need to find ways to deliver more efficiently, maximizing drop densities and consolidating orders from multiple retailers into a single run. If customers are flexible enough to allow retailers to plan efficient routes, the result could be a net reduction in vehicle emissions and traffic. This will be the case especially if the fulfillment business consolidates to a small number of winners in each area. Indeed, some local governments might even mandate such consolidation to increase efficiency and reduce traffic densities. Secondary packaging constitutes another potential environmental impact, as products are often shipped in cardboard boxes, paper, and foam—even though they are often already protected by the primary packaging they left the factory floor in.

Changing consumer attitudes toward minor damage to primary packaging would help reduce secondary packaging. But ultimately, the solution lies in a coordinated industry move to create secondary packaging standards that reduce wasteful duplication. Governments may step in to back this up with legislation, as they already have with mandatory charges for supermarket carrier bags in Europe. For instance, they could work with reusable bags and boxes that could be picked up on the next delivery run. Fulfillment intermediaries could prove instrumental in driving these efficiencies, just as they could play a consolidating role in routing.

DEPLOYING CAPITAL WHEN A BUSINESS IS IN DECLINE

In any industry disruption, some incumbents will reinvent themselves, while others go out of business. The story will be no different in retail. Successful reinventions are full of risks and unknowns, making the business case for them hard to write. For many retailers, there simply isn't one. In such cases, the most efficient way forward, both for investors and for society as a whole, is to recognize this early and allow resources to be redirected toward business models that can create value for society.

In practical terms, this means no longer reinvesting for the long term, but instead running these businesses as cash machines to fund innovation and new models elsewhere in the sector. One trap that often prolongs the decline of doomed retailers is the relative ease of pursuing short-term measures that boost performance.

These include new product development, promotions, and store refurbishment programs, and they can provide limited uplifts. However, they will not address the fundamental shifts in consumer expectations and, hence, behavior. Furthermore, management teams are often reluctant to manage decline; it is not what most went into business to do. It is the role of capital owners to nudge them in the right direction.

Axel Miller

Stefanie Hasse

Antonis Christidis

Modern Learning for Retail

TRANSFORMING TALENT FOR THE DIGITAL ERA

Rapid digitization has huge talent implications for the retail industry. Technological advances are altering consumer preferences and behavior, changing everything from supply chains to customer journeys. The scale of transformation requires a new type of workforce, one that is equipped to translate the reams of digital data into actionable food operations and that can function seamlessly with machines to deliver a better customer experience. How, then, can retailers develop the critical skills required for the digital era?

The challenges of equipping the workforce with appropriate skills at the right time are not new. But given the speed and scale of disruption faced by the retail industry, firms must be increasingly agile and proactive in recognizing and developing the skills necessary for competing and remaining relevant.

Faced with an era of unprecedented change, workforce issues are moving beyond traditional worries about succession and retention. Instead, effective reskilling and retraining will become more and more critical to the successful delivery of strategy. But retailers' learning and development practices have not kept up, changing little over the past decade. The transformation demands a rethinking of learning practices, requiring a much more flexible system that reinforces a culture of continuous learning.

HOMEGROWN TALENT FOR THE DIGITAL ERA

Technology has been changing job functions ever since the start of the Industrial Revolution, but the future pace of change will outstrip that earlier transition. Automation and artificial intelligence (AI) will dramatically alter the tempo of workforce transformation. The workforce of the future will need to possess strong technical knowhow for positions such as data engineers, robotics experts, software developers, cybersecurity experts, and user-experience designers. Additionally, companies will have to address shortcomings in roles that call for advanced cognitive and emotional intelligence, for jobs needing problem solving, persuasion, leadership, and management of complex relationships. The retail sector will continue to experience the onslaught of rapid automation, placing new demands on employees. In the future, the focus will shift away from traditional roles, such as stock and inventory systems, to areas such as facilitating wider interactive store experience and multichannel sales growth.

There is no set formula to tackle these challenges, but establishing a continuous source of homegrown talent is a good start, continuing a long tradition in the industry of promoting talent from the stockroom to the boardroom. Redeploying and upskilling existing talent makes practical sense on many levels. Aside from the bottom line, employee retention offers improved business continuity; preserves existing knowledge of company activities, customers, and the industry; and, importantly, contributes to a strong company culture. It also ensures the sector can continue to attract the brightest entry-level talent, which will be critical to understanding the needs of tomorrow's digitally engaged shopper.

Existing learning and development programs, however, were not designed with agility in mind. How then should firms go about modernizing their learning practices to prepare for the new era?

THE SWEET SPOT BETWEEN EMPLOYER-DRIVEN AND EMPLOYEE-DRIVEN LEARNING

Changes to learning need to be attuned with the changing times, and firms need to move away from traditional learning and development models to take a more agile, proactive, and creative approach. Many businesses have begun taking steps to improve their ability to equip their existing workforces with new skills. According to a recent Mercer Global Talent Trends survey, 42 percent of firms have upskilling programs focused on digital skills, 40 percent are increasing access to online learning, and 38 percent are deploying rapid internal skills courses. It is a step in the right direction but, in many cases, learning practices are still prescriptive and do not foster a culture of innovation. Only 50 percent of organizations were deemed as having a culture that encourages employees to stretch themselves, try new things, and operate outside of their comfort zone.

The challenge is straightforward: Many firms still follow traditional models, where learning is too often planned and implemented from the top down, with not much room for employees to learn new skills outside the immediate curriculum. There is little point asking employees to be "creative," "flexible," and "innovative" if their options for testing and acquiring new skills are rigid.

In contrast to traditional training, employee-driven learning capitalizes on workers' own motivations to develop, progress, and acquire new skills. So, curiosity and the drive for self-development need to become a core part of the organizational DNA. Workers should be given the flexibility and encouragement to engage in learning that might be outside of their core job requirements, for example providing sales staff with the option to learn basic coding skills. Encouraging employees to develop a broader skillset can help them drive novel problem-solving approaches that they might not otherwise achieve in day-to-day work.

To get where they want to go, firms need to adopt a "modern learning" approach that combines both employer- and employee-driven training. Modern learning allows firms to recommend courses they think workers will need and provides employees with the freedom to pursue training that interests them. Employees can prioritize their training requirements based on a combination of the organization's demands and the individual's personal interests, career goals, and ambitions. Importantly, this approach ensures that the skills taught and acquired are in line with current and evolving business demands.

DESIGNING THE FUTURE OF LEARNING

Modern learning must fit the individual organization, and there is no single off-the-shelf solution. What works for retail may not be appropriate for other industry sectors. It should incorporate a continuous feedback mechanism to accommodate constant adjustments and adaptation to changing

circumstances. Below are four practical ways in which firms can take a modern approach to learning.

1. Identify key requirements for the future

The first step is to conduct a thorough analysis of the skills and capabilities the organization will require to fulfill its future strategic goals, being mindful of the potential for rapid, far-reaching disruption in the future. Exact skill gaps will be difficult to predict. Companies must be ready to look at tomorrow's challenges and opportunities, and be prepared to map their target learning goals against changing business needs. Firms will also have to make tough decisions about which skills and capabilities to develop in-house and which to contract, redeploy, or hire in – and, in some cases, retrench.

2. Establish the key principles for the future of learning

These are the underlying principles of the new modern learning offering. While the goal is greater flexibility and balance between employer-driven and employee-driven learning, there are several key questions concerning structure, content, and delivery. With many employees already being stretched, managers should seek input from colleagues around the practicalities of teaching new skills and workers' existing responsibilities. Organizations will need to consider several factors.

How do we balance employer-driven and employee-driven learning? Broadly, a modern learning approach should implement employer-led learning to the extent required to accommodate for business needs. This should be complemented by a range of discretionary learning content to provide flexibility to employees to broaden their skillsets in other areas of their choosing. This combination will vary and will need to be monitored regularly.

Which delivery mechanisms should be prioritized? Organizations typically employ a range of delivery methods (such as online, face-to-face, and on the job) for different purposes, yet the options available for discretionary, employee-selected learning are often limited. It may be necessary to revisit existing preferences to provide more variety for employee-driven learning. Partnering with external content providers (see below) is an excellent way to broaden the content base and delivery channels.

Should we build our own content or source content from external providers? Learning alliances can be an effective way to source L&D content while reducing internal resource expenditure. Partnering with providers enables an organization to make good use of existing content, program design, and external accreditation. The choice will depend on the size and maturity of the existing L&D offering and the organization's operating model.

3. Modernize content

When designing the content of the new platform, it is vital not only to ensure that the programs are relevant to the needs of those using them, but also to actively demonstrate that they are relevant to the organization's goals and the day-to-day job. This means including plenty of experiential opportunities, which workers can apply to their everyday work situations, such as simulating real-life scenarios. Providers should intersperse practical demonstrations, exercises, and tasks throughout the curriculum, using techniques such as nudges and teach-back to encourage sustainable learning across the program.

Not all the content needs to be new or developed in-house. Partnering with professional learning and development providers, such as edX (which offers open online courses) or General Assembly (a for-profit education organization), can be an effective way to source content and structure the platform. This offers a more agile approach, ensuring that content remains up to date and contemporary, and that firms can access the latest analytical tools and technology.

4. Win the hearts and minds of employees

For many, moving to a modern learning approach represents a major shift, but one that feels better tailored to the needs of both the organization and the workforce. As with any major cultural change, however, there is no guarantee of employee buy-in. Past experiences often shape current attitudes; transforming behavior patterns and long-established mindsets will not happen overnight.

An important step is giving employees adequate support to fully understand the new learning approach, how it fits with the organizational objectives, and how it will benefit them personally. It is vital to communicate clearly and generate excitement about the new opportunities, for example by regularly publicizing success stories from an early stage. This marketing approach ensures employees witness tangible positive examples, as they learn to take more control over what and how they learn.

THE FINAL WORD

Digital transformation is not just about changing technology, but more importantly about changing people. For retailers, it will be key to attract not only the right skills, but also engage a workforce that is agile, responsive, and flexible as the industry adapts and transforms. The way a company shapes, reskills, and reorganizes its employees will play a fundamental role in its ability to respond to the future of work. Modern learning ensures that responsiveness becomes ingrained and, when done right, a source of competitive advantage.

EARLY MOVER IN THE DIGITAL AGE

L'Oréal recognized that its future marketing teams will require better data, analytical, and technical skills if they are to be effective in managing customer interactions. The company implemented a digital upskilling plan comprising two main modules: the first focused on digital marketing, including personalized customer messaging; the second was broader to provide general digital upskilling. Over 14,000 employees benefitted from the initial phase of the program, with a completion rate of 90 percent.

MULTISKILLING FOR THE DIGITAL AGE

Wipro's L&D initiative shows the balance between employer-driven and employee-driven learning in practice. In response to a changing environment, Wipro launched a training program designed to instill multiple skills in its technical workforce.

Through a library of over 1,850 online courses, the program encouraged employees not only to deepen their understanding in core technical fields, but also to try out those new skills linked to their own career aspirations. As a further incentive, Wipro introduced a system of credit points tied into participation.

NEW SKILLS IN RETAIL

Retail has been hit particularly hard by automation, and many brick-and-mortar stores are fighting back against the online trend by offering interactive shopping experiences. Sephora, for example, introduced a program through which entry-level cashiers are eligible for free training to become beauty advisers, through courses such as Science of Sephora and the Skincare PhD.

These are designed to enhance the level of personalized advice employees give to customers. REI Adventures, a travel agent and outdoor equipment retailer, has programs where its store employees can embark on trips around the world sponsored by the company; in turn, employees gain experiences they can use to interact and engage with customers in-store.

In the future, core retail training may include answering in-depth customer product questions, techniques for managing the whole customer relationship, training on consumer psychology, and understanding purchasing behavior across different store channels, such as online versus offline.

STUDENTS BECOMING TEACHERS

Google launched a novel approach to its learning environment by implementing employee-to-employee learning principles. The program, called "g2g" (for Googler-to-Googler), places employees across departments in teaching roles. It includes a core curriculum, as well as modules that the employees themselves initiate and design.

Giving employees teaching roles makes learning part of the way Google employees work together, rather than something they are told to do. It facilitates greater engagement by employees in the learning opportunities on offer.

EFFECTIVE CONTENT PARTNERSHIPS

DBS took the partnership development path when creating its digital skills training program. It partnered with Workforce Singapore to create a program designed to help its workforce adapt to the ongoing digital transformation occurring in the financial sector and to support the vision to make Singapore a Smart Financial Centre.

The new platform delivers content through a wide variety of channels and learning partners, offline and online, including bite-sized e-learning, paid sabbaticals, and scholarships. The platform also uses AI to make personalized course recommendations to participants in the program.

NEW MARKETPLACE
CHANGES IN-STORE

Hunter Williams

The Decline of Center Store: Fight or Flight?

FMI and its strategic partner Oliver Wyman are pleased to provide you with this white paper summarizing key insights from FMI's Senior Merchandising Executive (SME) Forum presentation and discussion, which focused on key strategies for increasing sales in the center store and beyond.

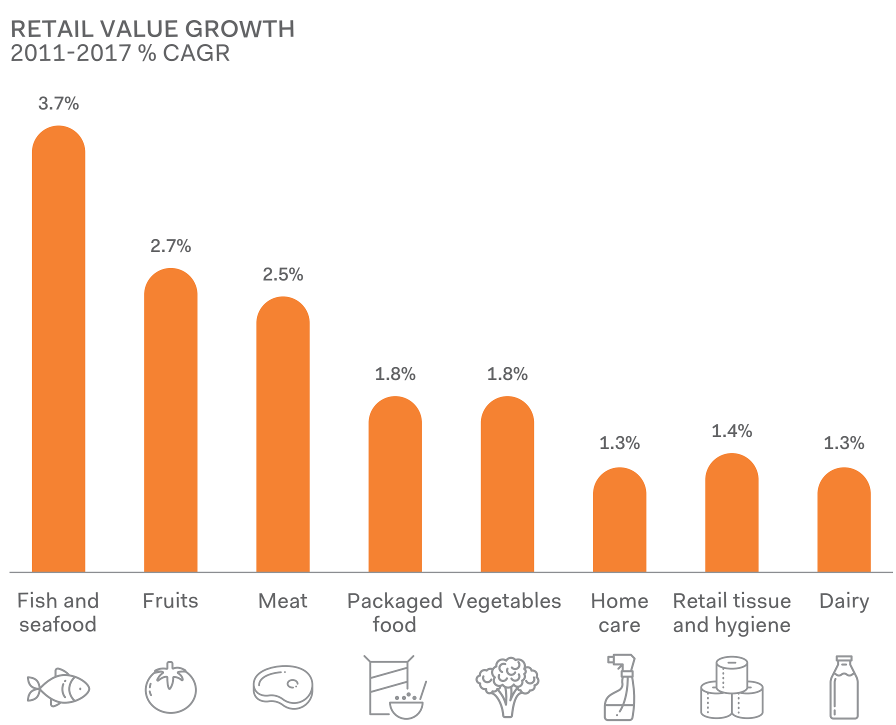
GROCERY STORE DEPARTMENT SALES AT A GLANCE

In recent years, it has become clear that the center store is becoming less and less "central." The value and volume growth of the sales in the center store are lagging that of perimeter categories. In some specific categories, the decline is particularly steep – such as in cereal bars, toaster pastries, juice, or sugar – while perimeter areas like deli, fresh, and bakery are exhibiting strong growth, as seen in Exhibit 1.

However, this is far from the "death of the center store," as eight out of 10 baskets at checkout contain center store items, according to Supermarket News.

Clearly these categories are still fundamental to sales, but the frequency at which center store items are added to shopper baskets is declining. From 2016 to 2017, center store purchase occasions (per shopper) dropped by 2 percent. In the grocery industry, a small percentage change in traffic can make or break the profitability of a store.

Exhibit 1: US market size growth by department



Source: Passport Euromonitor International 2017, 2018

DRIVERS OF THE DECLINE IN CENTER STORE SALES

There are three significant headwinds placing sustained pressure on center store performance, including: 1) greater suitability of center store categories for e-commerce adoption, 2) consumer preferences shifting towards food-service offerings with an emphasis on convenience, and 3) lack of product differentiation and excitement amongst center-store product categories.

First, center store categories are suitable for e-commerce adoption. They are ambient, packaged, and have a significant shelf life compared to fresh products.

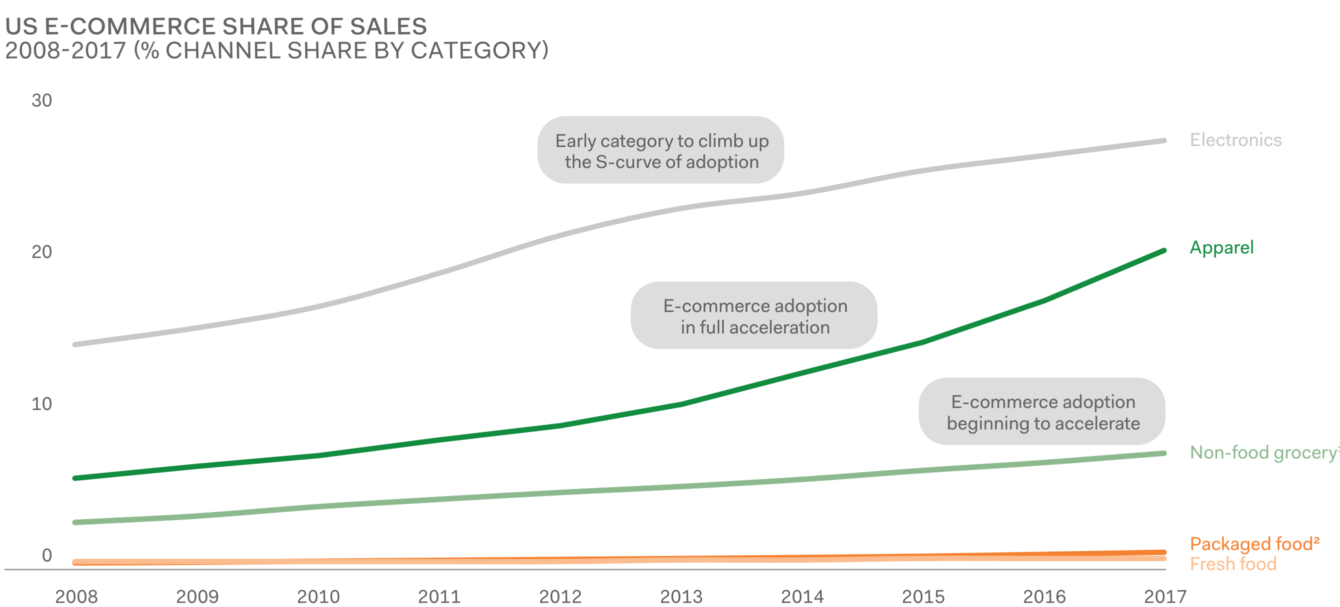
As such, sales of these categories, particularly the nonfood portion, are moving online. E-commerce adoption has proceeded at varying rates for different categories, as seen in Exhibit 2. Adoption follows a classic S-curve category by category, starting slowly, accelerating to exponential growth, and then flattening. Durables such as electronics and apparel were first to transition and food and nonfood grocery will follow as "blockers" to e-commerce adoption are removed.

Second, at least half of all food and beverage dollars are now spent on out-of-home consumption. For the first time, the lines between at-home and out-of-home expenditure have converged, as seen in Exhibit 3. The rising share of food service is putting pressure on traditional grocery, and the center store is no exception. The more dining occasions that are taking place out of the home, the less packaged food needs to be purchased at the grocery store, not to mention the napkins and dish detergent that would be used during and after the meal.

How consumers buy for their at-home consumption is changing, as consumers increasingly opt for "food as a service" rather than "food as a product," driving increased share of fresh-prepared, on premise dining, takeout, and subscription meal-kit services. These offerings pose a threat to fresh and center store categories alike.

Third, there is a lack of differentiation and excitement in center store categories. Many center store category purchases are driven by necessity, making it difficult to create incremental sales from spontaneous purchases. Thinking of ways to address this will be important moving forward. Grocers have struggled to differentiate themselves in the center store, as many of the products look the same, especially in packaged goods. Sales have struggled most where innovation, differentiation, and excitement were lacking.

Exhibit 2: US ecommerce percent share of sales



Source: Passport Euromonitor International 2017, 2018

RETAILERS ARE ASKING THEMSELVES: FIGHT OR FLIGHT?

Against this backdrop, many retailers are asking themselves what to do about the center store space: fight or flight? Should retailers work to reinvigorate growth in the center store and fight back against these trends? Should they accept that some sort of decline is inevitable and focus on making up for the sales elsewhere? Retailers have options that they can deploy to boost sales and take a new perspective on a historically integral section of the grocery store.

FIGHT STRATEGY

We see three primary ways in which retailers can fight to reinvigorate the center store and reverse declining productivity:

1. Differentiate assortment by focusing on high-growth categories or private brands
2. Increase the level of excitement and engagement in center store categories
3. Operate leaner to increase the profitability of each dollar of center store sales

1. Differentiated product offerings

Differentiating with competency in emerging growth categories can be one way to increase productivity. Ethnic foods, specialty items, nutritional products, better-for-you categories, organic, and locally sourced items all present opportunities for growth within the center store. Grocers can double down on these categories to inject vitality into the center store and differentiate from competitors.

Private brand products are another lever grocers can pull to increase margins. Private brands are still underpenetrated in North America, and we expect its share to continue to grow. Part of that effort will be expanding private brands to cover the full range of "good, better, best," rather than just entry price. Sainsbury's is an example of a company that provides private brand options throughout the center store that cover the full range of consumer price points, as seen in the example of their tea range in Exhibit 4. The issue of utilizing private brands programs as a strategic asset has been presented at a previous FMI SME Forum. The associated white paper is available through FMI or on the SME Forum micro-site.

2. Increase excitement

Another strategy for making the center store more productive is to increase excitement in product categories. Some examples include locating in-store dining such that it is surrounded by related products. Eataly, the notable Italian marketplace, has taken this concept to the extreme. Another example is tying center store categories closer to the perimeter – such as placing chips next to the cheese or buns, ketchup, mustard, and relish near the hot dogs – to create a seamless occasion-driven buying experience for customers.

Leveraging in-store special events, whether seasonal or for fun, can also generate traffic and excitement around center store categories. Many grocers have started offering in-store wine and beer tastings to inspire activity in those categories. Other retailers such as Costco in the US and Don Quijote in Japan have fully integrated the "treasure hunt" concept into their business model, leveraging limited time offers or strategic product placement to inspire purchasing, as seen in Case Study 1.

Grocery retailers have historically lost share to "category killers" and have dubbed them as a threat to the business. In the present context, however, retailers can take a different stance and look to them for inspiration. Retailers like PetSmart, Sur La Table, and Bed Bath & Beyond are entirely dedicated to a particular category – what can traditional grocery retailers learn from them? In the case of cookware, grocers can learn from players like Sur La Table by leveraging cooking classes to advertise and sell cookware and other prep/cooking products.

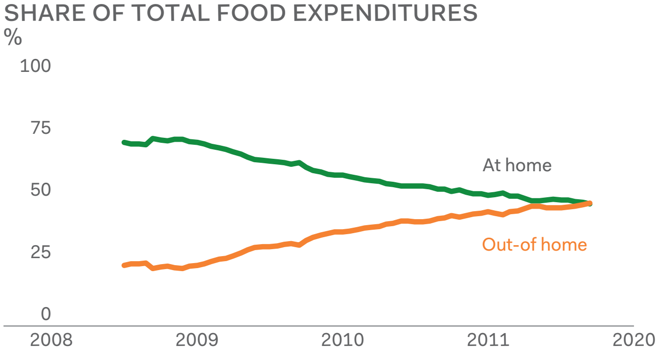
3. Operate leaner

The third lever retailers can pull for the "fight" strategy is efficiency – that is, how to reduce costs in the center store and maximize profitability. Oliver Wyman has developed an activity-based costing model to analyze store operations and found that center store accounts for between 35 percent and 40 percent of total in-store labor hours, as seen in Exhibit 5. Shelf maintenance and goods handling are particularly cost prohibitive. Making those as efficient as possible can lead to material savings for retailers.

Labor allocation savings can be realized through a combination of tactics such as supporting associates with better tools and information or leveraging technology to improve upstream services for the store (such as shelf-ready packaging, enhanced schematic development, and coupling in-store with velocity data).

Exhibit 3: US at-home and out-of-home share of total food expenditures

SHARE OF TOTAL FOOD EXPENDITURES



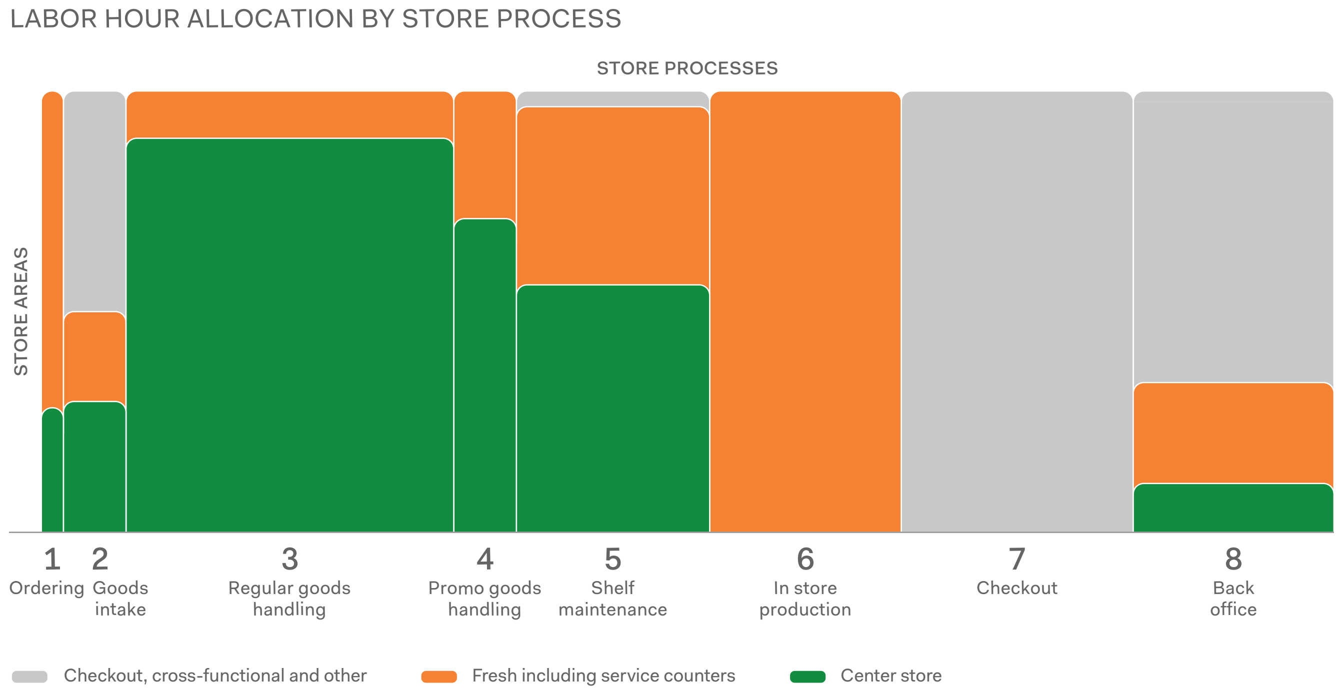
Source: Oliver Wyman analysis based on GIRA data; NPD Group

Exhibit 4: Private brand architecture in Sainsbury's tea

BEST	• Regional specificity in Kenya • "Taste the difference" and "fair trade" branding	£2.75/unit
BETTER	• Premium red color • "Fair trade" branding	£1.10/unit
GOOD	• Simple, basic packaging	£0.50/unit

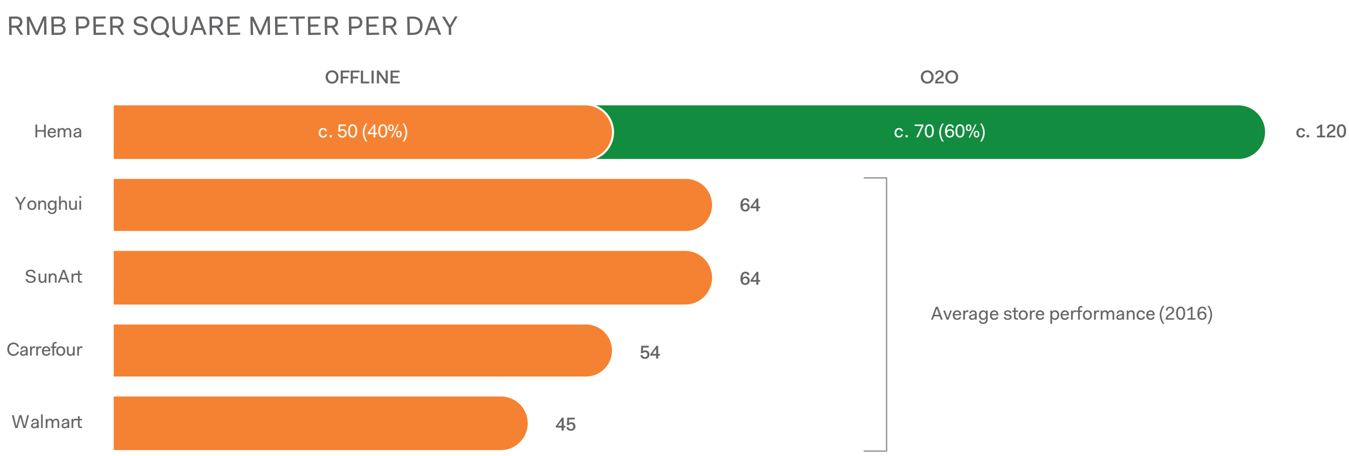
Source: sainsburys.co.uk

Exhibit 5: European supermarket labor allocation



Source: Oliver Wyman analysis

Exhibit 6: Estimated sales density



Source: Oliver Wyman analysis

CASE STUDY 1: EXAMPLE STRATEGIES TO INCREASE EXCITEMENT IN CENTER STORE

IN-STORE SPECIAL EVENTS

- Exclusive in-store samplings and displays
- Leverage seasonal promotional events to offer activities and pairings to sell more center store products

"TREASURE HUNT" CONCEPT

- Turns shopping into a "treasure hunt" experience for customers, complete with interactive displays along the way
- Fun products and experiences exclusively available in stores (for example, teddy bear)

CASE STUDY 2: EXAMPLE STRATEGIES FOR INNOVATING GROCERY PERIMETERS

Promote local products by inviting local owners to set up stands in stores

Additional services (for example, smoothie bar)

Credible expert zones in fresh (for example, dry aged meat, "cheese paradise")

Deli with a seating area for immediate enjoyment and consumption

FLIGHT STRATEGY

On the other hand, retailers can choose to pursue a "flight" strategy in which they acknowledge this decline and focus on making up for sales elsewhere. This can be done in several ways:

1. Capture business moving online
2. Double down on the perimeter
3. Repurpose the center store space

1. Capture business moving online

If the tide of e-commerce adoption is irresistible and consumers are going to shop online anyway, how can a traditional grocer make sure to capture a significant portion of those sales migrating in that direction?

There are many options for retailers entering e-commerce. There is no "one size fits all" solution, and taking a critical lens to choosing the right model is paramount.

Many retailers have developed a preconception that online delivery offerings will only shift dollars spent, with no incremental sales or substantial incremental costs. However, Alibaba's Hema grocery in China has dispelled this myth. Hema's futuristic stores are able to achieve sales densities similar to more traditional hypermarkets in brick-and-mortar operations while effectively doubling sales densities through online delivery, as seen in Exhibit 6.

Mainstream and mass hypermarkets and grocers in China are investing to ensure they are not left behind. Yonghui is an example where stores are being reinvented to be fully online-to-offline (O2O). When ordering using the online application, shoppers can enjoy free 30-minute delivery for orders above 18 RMB – or about US$3. The store is increasingly a true O2O experience, with shoppers able to use the store as a showroom, adding items to their mobile app cart by scanning QR codes on the shelf tags for later delivery to their home. In previous SME Forum events, we have analyzed the click-and-collect model, which can be found on the FMI SME microsite.

2. Double down on the perimeter

Another common "flight" response is to react to the decline in the center store by doubling down in the perimeter. Promoting local fresh or investing in deli are examples of this tactic. Some stores have invested in "expert zones," such as Edeka's "cheese paradise" or Rewe's smoothie bar, as seen in Case Study 2.

3. Repurpose the center store space

Condensing the center store and repurposing some of the freed-up space is another option for retailers to consider. In Europe, Edeka and Migros have both replaced portions of their center store with areas dedicated to nontraditional household categories, as seen in Case Study 3.

This concept is reminiscent of traditional bookstores' reaction to declining sales as a result of e-commerce. Retailers like Barnes & Noble found ways to repurpose some of that space for coffee shops, both to increase traffic as well as generate incremental revenue. They also branched out into new, non-traditional but adjacent categories like toys and board games.

In recent years, we have seen that grocery can be on the other side of this equation. Department stores are suffering from weak traffic and poor productivity, seeking ways to revitalize the space. One example of this was the recent Kohl's and Aldi partnership. Early in 2018, Kohl's started renting out center-store space to the popular German-owned grocery chain, Aldi, in an effort to drive traffic and increase productivity of the space.

THE FUTURE CENTER STORE

The center store will continue to evolve as retailers play out these strategies in the coming years. Will much of it be housed in the backroom, for delivery? Will some of it be repurchased for a food court? Will it be in part a "showroom," with consumers scanning what they want now for delivery later?

WHAT'S THE VERDICT: FIGHT OR FLIGHT?

The future grocery store will likely include a smaller yet more productive center-store space. Lines between the center store and perimeter will continue to blur, and retailers will be forced to capitalize on growth where it can be found, whether that be within categories in the center store or in alternative channels and departments (such as online and perimeter).

So what are retailers to do: fight or flight? The reality is that this is a false choice. Retailers will need to pursue a combination of both and consider all the strategies mentioned above, as the trends discussed are real and will continue to play out. Above all, grocers will need to be agile, flexible, and entrepreneurial as the pace of change in our industry accelerates.

Tanja Ebner

Jens Torchalla

The Future Supermarket

HOW DIGITAL OPERATIONS WILL ENABLE A WINNING CUSTOMER EXPERIENCE, AT MUCH LOWER COST

The move to online shopping has dominated retail trends for many years. Lately, successful e-commerce merchants – from Amazon in the United States to JD.com in China – are increasingly opening or buying physical supermarkets. However, online retailers want to transfer some of their digital efficiency to their new brick-and-mortar stores, so they are experimenting with new forms of automation. That raises an important question for supermarkets: How many people will be needed to operate the stores of the future? At the Amazon Go concept store, shoppers first register and can then remove items from shelves and leave without going through a checkout process; the payment is automatically deducted via smartphone. Checkout is not the only store operation that can be automated, though. Overall, a high degree of digitization could reduce the labor hours needed to run a future supermarket by around 40 percent.

THE ROLE OF STORES IN AN OMNI-CHANNEL WORLD

As shopping migrates online, brick-and- mortar stores will need to respond, in particular by turning shopping from a transaction into a pleasurable lifestyle activity.

Our publication "Retail's Revolution" shows how physical stores will play an important role even in a world of rapidly growing online sales. However, given the convenience of online shopping, if physical stores are to survive – let alone thrive – they will need to give customers new reasons to visit them.

Exhibit 1: Stores have a clear role to play in retail's future...

...but successful store will need to play more specialized roles than they do today

		KEY SUCCESS FACTORS IN THE FUTURE
VALUE	DISCOUNTS MODELS "I want to pay as little as I can"	• Ruthlessly efficient operating model • Own-label sourcing and rigorous quality control
CONVENIENCE	CONVENIENCE STORE "I need it now"	• A well-curated assortment that serves the most common customer needs out of limited shelf space • Broad store network in high-traffic areas
	CLICK-AND-COLLECT PICK-UP POINT "I need it today, on my schedule"	• A strong online assortment covering most additional customer needs – that can be rapidly delivered to store • Broad store network in high traffic areas
EXPERIENCE	EXPERIENCE "I want to enjoy shopping"	• Well-trained, highly-engaged workforce • Innovative and exciting store designs
	MANUFACTURER BOUTIQUE "I want access to the newest and best products from the brands I trust"	• Strong general brand recognition • Unique product offering
	OMNICHANNEL SHOWROOM "I want to experience the products for myself and get advice if I need it"	• Dynamic environment to support in-store consumer trials • Commercial terms with manufacturers that can support showroom economics
SOCIAL ENGAGEMENT	SOCIAL INTERACTION "To me, shopping also means meeting people"	• Well-trained, highly engaged workforce • Well-located stores that support social shopping occasions with communal spaces or events
AFTERCARE AND TRUST	SERVICE CENTER "I want support if the product breaks"	• Expert employees with access to spare parts and replacement products

Source: Oliver Wyman analysis

We think that people are likely to remain an essential feature of stores because of their role in creating social engagement and an enjoyable experience. Well-trained, knowledgeable service staff members are the best way for grocers to connect with their customers and give them a memorable and differentiated experience.

FOOTFALL FROM EXPERIENCE AND SOCIAL ENGAGEMENT

The supermarket of the future will need to inspire customers and improve their overall experience. Upgrades could include superior fresh-food offerings, food courts, gastronomic areas, and cooking classes. Each of these features will need to be combined with expert advice; this will be labor-intensive and, therefore, expensive. To fund this investment, stores will need to deploy modern automation technologies that free up staff from routine operations. These freed up hours can then be invested in activities that add greater value for the customer.

While the most visible changes to supermarkets will be these new customer-facing features, digital tools will transform operations in less obvious ways. Before customers arrive in a store, they will have assembled their shopping lists using online apps informed by artificial intelligence, which could recognize their consumption patterns. As they sample products in-store, they will flip through recipes on a tablet or smartphone and make online orders for home delivery or for picking up as they leave the store.

MANUAL TASKS NEED TO BE AUTOMATED

Some stores have already introduced automatically updated electronic price tags for display shelves, saving the bother of swapping paper tags.

The electronic tags can also facilitate dynamic pricing, to discount overstocked products or those about to reach expiry date, for example. In the future, customers' smartphones may display personalized prices. This would allow supermarkets to make tailor-made offers that take into account a customer's profile, shopping history, and current location in the store. Interaction with customers will become highly individual, both in stores and online.

THE CENTER STORE GOES VIRTUAL

Floor space for the new features can be freed up by shrinking the space currently allocated to canned and packaged products. Detergent, washing-up liquid, and paper towels form part of "chore" shopping and provide little to attract consumers to a store. Supermarkets could create a virtual version of the center store, where customers scan items on a wall of barcodes to add to their virtual baskets. They would then pick up the items later or have them delivered. The products themselves will mostly remain in the backroom storage areas, simplifying the picking process.

To smooth the flow of goods through their stock rooms, stores will need more effective picking systems. Depending on lead times and customers' use of digital shopping lists, some orders will be picked in centralized warehouses in different locations. These items will then be combined with products that shoppers add in the supermarket, providing a seamless experience across every shopping channel.

Stores' forecasting and ordering decisions will be fully automated, using machine- learning algorithms and real-time out-of-stock alerts. Smart tools and algorithms will help to plan just the right level of convenience food production. At the food court, employees will use standardized meal kits to maintain high levels of product consistency and operational efficiency.

JD.com aims to launch one million stores across China over the next five years. Alibaba aims to turn six million convenience stores into smart service centers.

WAREHOUSE AND BACKROOM

The backroom will house the center store assortment and serve as a picking area. Some online orders will be picked here for home delivery or in-store pickup. Shop-floor replenishment teams can be relocated here.

Potential increase of labor hours: 100+%

FRESH COUNTERS AND IN-STORE SERVICES

An addition to today's meat counter and fresh bakery, this area will be very important. A food court will offer expert advice, a place to socialize with barista-served coffee, and tastings of meals for home delivery or pickup.

Potential increase of labor hours: 40+%

CHECKOUT

No lines, one-click payment: The future store will offer a much better checkout experience than today. Most customers will use scan-and-go systems, others self-checkout terminals.

Potential reduction of labor hours: 60+%

THE CUSTOMER OF THE FUTURE

The future customer will want to shop anywhere, anytime. A trip to a store will need good reasons. These could include services such as recipe tastings and lunch in the store, or a highly personalized offer and price. Shopping will need to be fun, hassle-free, and experienced through multiple channels.

ORDERING AND REPLENISHMENT

Forecasting errors will be reduced by machine learning algorithms, making stock management much easier. Center store products will be bought online or from virtual shelves. The stocking of perishables will be a higher priority.

Potential reduction of labor hours: 50+%

SHELF MAINTENANCE

Electronic shelf labels will enable automatic price updates and reduce effort – especially for discounted products. Personalized prices seen on a smartphone may even replace unified shelf prices. But tasks such as fresh and quality controls will stay relevant.

Potential reduction of labor hours: 50+%

THE WORKFORCE OF THE FUTURE

Taking advantage of new tools and technology requires staff to develop a new skill set. Managers need to leave their offices and engage with customers, as good restaurant owners do. Staff at new areas like the food court will require a customer-centric mind-set and a new training approach.

ADMINISTRATION

Smarter tools and automation will massively reduce back-office work. Streamlining and digitization will mean managers won't have to work through long paper lists and daily reports. The new checkout experience will also minimize hassles such as cash management.

Potential reduction of labor hours: 60+%

CHECKOUT WILL BE CUSTOMER-LED AND SUPPORTED BY TECH

Automation is already changing the supermarket checkout process. In the future, customers will expect no lines, no transaction time, and one-click cashless payments. Amazon Go uses a combination of digital technologies to check which items each customer has taken from the store's shelves. This kind of system will be too expensive for most supermarkets, at least for now. However, scan-and-go systems that greatly simplify the checkout process are gaining popularity among shoppers. Many retailers offer self-checkout terminals, a number of which can be overseen by a single member of staff.

FUTURE STORES WILL BE ABLE TO OPERATE WITH A 40 PERCENT REDUCTION IN LABOR HOURS

A number of these store upgrades will be costly, but technology presents huge opportunities to save money by simplifying basic tasks, while also providing a better customer experience. We think retailers could free up 20 percent of their labor using existing technology and by systematically optimizing and simplifying day-to-day processes.

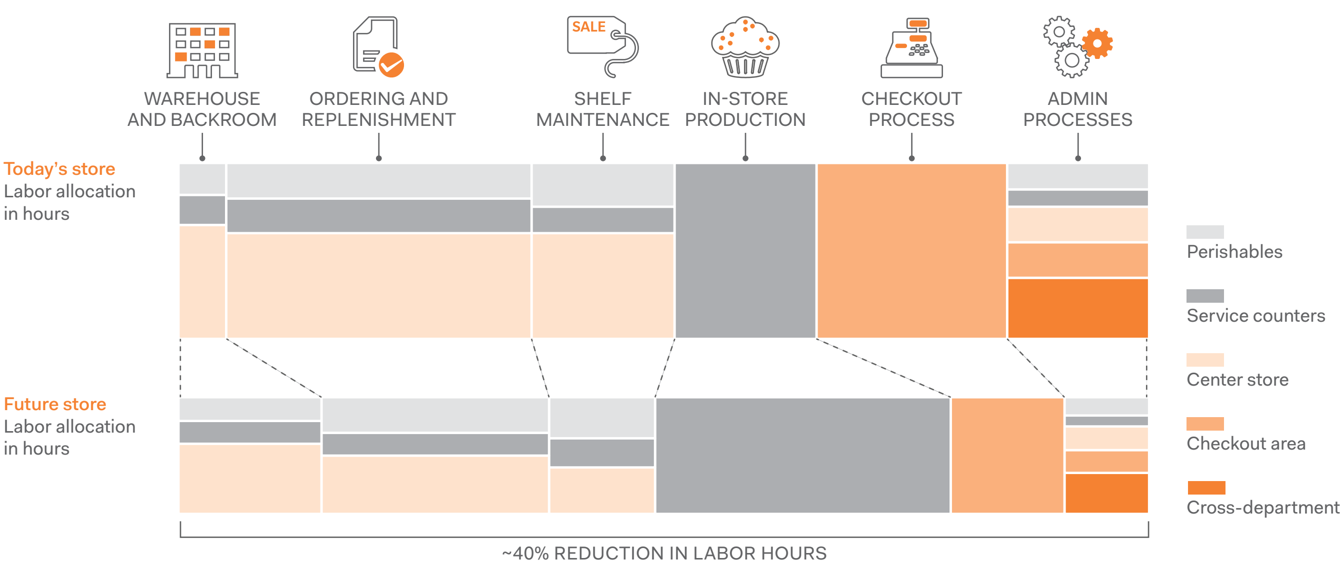
By adding the cost savings from massive automation and the transformation of supermarket sections, such as the center store, the future store will be able to operate with labor hours reduced by 40 percent from their levels today. (See Exhibit 2.)

Highly efficient digital operations will thus enable supermarkets to create a superior customer environment that will be well placed to compete against online stores.

CONCLUSION

The growing share of online grocery continues to draw much attention from both the retail industry itself and broader coverage by the press and the analyst community. Even as that share grows, physical grocery stores are undergoing a quiet revolution of their own. Brick and mortar stores will continue to meet most of the demand for food for the foreseeable future. Retailers who invest in the future supermarket now will find their stores likely to continue to thrive as an important part of the omnichannel future.

Exhibit 3: O2O business contribution in majory grocery retailers



DRIVERS OF CHANGE FOR LABOR-HOUR DEMAND

WAREHOUSE AND BACKROOM

Robots to support backroom picking for click and collect and online delivery

Home for center store items (shop-floor shelves will be virtual)

ORDERING AND REPLENISHMENT

Manual ordering fully replaced by automated, sales-based ordering with better forecasts

Center store product restocking will be minimized thanks to virtual shelves

SHELF MAINTENANCE

Electronic shelf labels will reduce labor effort

Personalized prices seen on smartphones may replace uniform shelf prices

IN-STORE PRODUCTION

Emphasis on food court experience

Areas for customers to socialize and be inspired by offerings such as barista-served coffee and in-store cooking classes

CHECKOUT PROCESS

Customers to take more control of the checkout process with scan-and-go systems and self-checkout terminals

Reduced number of cashiers needed, though still present to assist customers

ADMIN PROCESSES

Smarter tools and automation will massively reduce back-office work

Store managers freed up to leave offices and engage with customers

1. Not all stores operate O2O
2. The online order # only accounts for c.5% in Yonghui Bravo Luban Rd. Store in Shanghai
3. A new format store located in Yangpu, Shanghai
Source: Primary research, store visits, desktop research, Oliver Wyman analysis

FOOD PRODUCTION
MONITOR, PROTECT, AND LEAD

Hilary Thesmar

Food Safety Foresights

An interview with Dr. Hilary Thesmar, FMI's Chief Food and Product Safety Officer & Senior Vice President of Food Safety.

What are some of the major food safety issues that retailers and product suppliers need to be thinking about now that might be new to them?

We have seen many changes in the food safety regulatory framework over the past five to ten years and its implementation is manifesting itself in the form of recalls, enforcement issues, and public health concerns. Multiple factors have come together, forcing retailers and product suppliers to think differently about food safety. Ultimately, the most important change can be summarized in three words: whole genome sequencing. It's a game changer for food safety across several dimensions: enforcement, public health measures, and managing food safety in preparation areas and throughout the food chain.

To provide some clarity, whole genome sequencing (WGS) in the context of food safety, is the DNA sequence of bacterial pathogens. Significant parts of a microorganism's genome are individually sequenced to provide unprecedented detail about the type of organism, its virulence, what else it is related to, and where it might have come from. Whole genome sequencing is the same technology used in the Human Genome Project, but with respect to food safety, scientists are specifically interested in the genetic make-up of the pathogens related to food safety. For example, we now know the DNA sequences for E. coli, Salmonella, Listeria, Campylobacter and other pathogenic microorganisms and this information is stored in accessible databases. WGS enables scientists to determine exactly which type of Salmonella is in a facility or in a food and what else it is related to, based on similar genetic patterns or even a "match." This new development gives public health officials new tools to identify the sources of outbreaks. Thus, the speed at which they can determine an outbreak's cause and source has gone from the order of weeks and months to days and even hours. Scientists can identify these strains with a precision that has not been possible before. Just as genetic identification revolutionized criminal detection, it's a game-changing detective tool for the entire food industry. Due to advances in molecular biology, we are seeing more recalls, more reported outbreaks, and links that would have been missed because we would have never known that the illness and the food were linked.

Why is it different? Previously, there would be sporadic illnesses not attributed to foodborne disease. A family may have become ill from a contaminant, but usually not a large swath of people. Now, like matching fingerprints – only at a genetic level – scientists can identify and connect an illness in Iowa with one in Texas. Before, doctors may not have been able to connect those two cases. Now, the matching is done, and the links are made. This gives us the ability to locate the source and determine the cause of an outbreak with very few samples.

The Food Safety Modernization Act (FSMA) passed into law almost 8 years ago with the goal of improved food safety. In 2018, there have been numerous outbreaks and recalls unlike anything seen before. However, there's been this perfect storm of regulation and technological improvement. Scientists are identifying the pathogens sooner, enabling industry leaders, regulators and public health officials to respond quicker. This has led to the perception that food safety is falling apart, but quite the opposite is true, it is actually working better than ever. Consumers may not realize that these are outbreaks that we simply may not have known about five years ago. The risks have not changed but the awareness of foodborne illness has changed. The cost of improved awareness of outbreaks is ultimately borne by the industry because they are the ones who must remove products from the shelf.

It is important to note that the food industry is also adopting these same technologies for compliance and preventative controls. For example, food industry leaders can use environmental monitoring programs and genome sequencing on samples to determine what resident bacteria exists in facilities. Thus, they can ensure their cleaning and sanitizing programs are effectively removing these pathogens. The industry is working with regulatory officials to better understand what regulators are doing and what types of microorganisms they are looking for. All of this is shared on public databases, one of which is GenomeTrakr, which is used to share genome sequences of pathogens internationally.

We've talked a lot about the technology that is now supporting the food industry and regulation. Do you think there's a role that blockchain can play in all of this?

Blockchain is a powerful tool to share data and can be used for traceability purposes. But, more important is the data that the companies are collecting and then sharing. So, I see blockchain as an important potential conduit for exchanging information, but I think the focus right now needs to be on how retailers and suppliers collect information first.

Consumers are demanding more transparency when it comes to their food. How can retailers and food producers better satisfy this consumer need?

We've known for a long time that consumers want to know where their food is coming from, what ingredients are in the food, and who is making it. The industry has an opportunity to share that information with consumers in innovative ways beyond what is printed on the label. For example, a growing number of food and consumer goods companies are using the digital tool SmartLabel™ to go beyond the limitations of the physical label and share information on how and where the food is made. I have a personal passion for teaching people about agriculture and farming and helping consumers fulfill their desire to get connected to the true source of their food. Many people have the perception that food just comes from grocery stores and don't realize the involvement of farmers and family farms.

I had an opportunity to share information on the SmartLabel™ system with some food experts. They were amazed by it and enjoyed seeing the in-depth information available and this audience was interested in the details on certifications. There is certainly even more that can be done to bring this information to consumers. Advances in technology will make this information accessible but more than simply having it available, making consumers aware of how to access the information will be important.

How can retailers and product suppliers more actively engage consumers in food safety?

There is always an opportunity to do more to engage consumers. Every retailer has a different relationship with their shoppers based on company style and profile, demographics, or the region that their customer base resides. But regardless of style, size, or locale each retailer can add value by listening to the specific needs of their customers.

What we've seen consistently over time is that consumers expect the food sold at retail to be safe. They trust their local store to carry products that are safe for their families to consume. There might be some level of distrust of the food industry, but shoppers trust their neighborhood supermarket and local grocer. People recognize it as "my store," and they trust their store. But as we know, trust is hard won, but easily lost, so we must carefully nurture that trust and potentially utilize it from a food safety, nutrition, and wellness standpoint.

The food value chain is evolving more than ever. Where does food safety fit into the equation?

Food safety fits everywhere along the food value chain. Broadly speaking, there are two strategies with food safety: prevent contamination and introduce interventions along the way. By interventions I mean a step to kill pathogens. So, we either prevent the problem from happening or take steps along the way to get rid of pathogens. For example, the working assumption is that there are likely active bacteria in milk. Here, contamination is prevented through the pasteurization process. For other products, such as fresh produce, measures must be taken to prevent pathogens from reaching consumers. If each link in the value chain takes responsibility for food safety, then we would have a very safe global food supply. As the last link in the value chain prior to food products reaching the consumer, I think retailers have a significant responsibility for ensuring food safety measures are maintained along the value chain. After all, they have the purchasing power that enables them to define the specifications upstream.

If retailers have the largest responsibility because they are the ones interacting with consumers, how do some of the newer roles in the food value chain, such as delivery specialists, fit in?

Consideration is given to where they sit in the regulatory framework and what regulations apply. Typically, these newer companies are covered by some part of the compliance piece, depending on where they have control of the food. For example, food delivery services would need to be trained in maintaining food temperature if they are delivering to a customer. Even if the regulatory framework is not comprehensive in covering them, then they still have a responsibility to the consumer to not contaminate food. That is the bare minimum: to do no harm. There is work underway to make sure that there are fewer regulatory gaps, thereby ensuring that companies that transcend the historical food value chain are covered under local, state, or federal regulations.

How do you think food safety will evolve over the next five years as the pace of change within the food industry continues to accelerate?

There certainly have been shifts. We used to see stand-alone temperature monitors in food trucks transporting food only measure the temperature as the truck was leaving the facility. Now, many companies have wireless temperature monitoring. Just consider how technological advancements have revolutionized our mobile phones; that same portable technology is at play in the food industry as well, improving our information sharing and technological efficiency. We've been able to justify to the government to have more flexibility on regulations related to sophisticated refrigeration systems with alarms set to monitor changes. These measures were put in place for inventory control to protect companies from loss but also have a food safety benefit. If a freezer loses temperature control, alarms notify people within minutes, allowing for instant action to be taken, instead of the food being out of a controlled environment for hours.

Technology will continue to be utilized by retailers and the food industry more broadly. As technology becomes more available and costs go down, it will only make it easier to do our jobs. Technology is changing the way food is grown, produced, harvested, transported, and stored. From farmer to producer, from trucker to wholesaler, every link in the food chain is realizing the benefits of using technology.

From a regulatory standpoint, how is food safety impacted by differences in policies between the two major parties?

Food safety has always been bipartisan. I mean, who wants to go down in history as being opposed to food safety? Consequently, it is difficult to argue with food safety regulations. We do see fluctuations in the volume of regulations, but generally speaking, food safety is bipartisan, suffering less fluctuation when there is a transition between the party in power.

Retailers and product suppliers are always under more pressure to reduce costs. What's the case for investing in food safety?

In the FMI US Grocery Shopper Trends reports, consumers report preferring to shop and return to stores that are clean, well-lit, and have nice prepared food departments. Shoppers want to see that stores are investing in sanitization and that they are clean and are pleasant to shop in. It is clear from years of FMI Trends research, that stores with a reputation of being well kept are the stores that consumers return to. We also know that stores that tout food safety as a corporate value and communicate with their consumers about food safety receive positive feedback from their customers.

When stores have issues with food safety, it can be very costly. This includes recalls or food safety problems involving contamination by the retailer. For example, an employee that causes a foodborne illness or scare from not washing his or her hands can financially devastate a retailer, costing them hundreds of thousands or even millions of dollars. Consequently, retailers recognize investments in food safety to be a wise use of money and these investments do not always have to major capital projects in innovative technology. Even smaller investment, such as having a proper training program and awareness is important. Creating a food safety culture starts at the top, with management playing a large role in how food safety is valued. Sometimes, it might be as simple as communicating that employees should be comfortable staying at home when they are sick. It can save a company a lot of money.

Are there any other trends you would want to call out to close?

Recent years have seen more communication taking place between supply-chain partners, and we see this trend only growing. It will be increasingly important for food retailers of all sizes to communicate with suppliers and with farmers, so they have the information at hand that their customers are requesting. Communication is key and as we know, it is only successful when everyone is fully engaged in the process.

Much of this information sharing can now be done through technology. That said, there is also a strong relationship component of people talking face to face and knowing who they are working with. With technology, we become increasingly detached. The companies that will succeed are those recognizing that consumers are still just people and their food industry partners are still just people.

Sirko Siemssen

Michael Lierow

Sustainable Retail in Grocery

Most retailers agree that sustainability will be a key competitive advantage in the future. Unfortunately, however, there remains a gulf between their ambitions and reality. Moreover, a growing mismatch between supply and demand could erode the profits of the entire food industry within four decades: Global demand for agricultural production is expected to grow by 70 percent by the year 2050, and average per capita caloric intake globally is projected to increase by about 40 percent. The problem is that global food production already utilizes about 50 percent of the earth's available arable land, and the global agricultural sector consumes about 70 percent of the freshwater available for human use.

Our research reveals a broad consensus among retailers who recognize that they will almost certainly face wrenching cost and availability problems as a result of the growing divide between food supply and demand. Most believe that they will also be confronted with very different demand patterns as customer priorities and regulations change. Ninety percent of the top 50 global grocery retailers market their own private-brand organic products. (See Exhibit 1.) In their annual reports, 82 percent of groceries retail chief executive officers cite sustainability as a key priority. More than one in three has opened "green" pilot stores.

Nevertheless, the reality behind these flagship initiatives continues to be largely "unsustainable." While sustainability now routinely figures in evaluating investment decisions and corporate projects, it's had little effect on the key commercial activities of the business – buying, store operations, or supply-chain decisions. In most cases, sustainable product lines account for only a fraction of sales revenues, and, with new product development and space decisions still dominated by other priorities, change will continue to be slow.

Although retailers' advertising campaigns are increasingly built around green messages and products, their in-store price promotions largely ignore them – and these account for a very significant proportion of sales. The vast majority of new stores also have little to do with their "green" concept stores. More than 99 percent of all stores are still "traditional," "non-green" entities.

WHY SUSTAINABILITY IS NOT "STICKING"

Retail is characterized by low margins, pressing daily challenges, and complex global supply chains. Where sustainability and climate change represent long-term challenges, retailers are focused on near-term, urgent matters and leave sustainability in the backseat. Even deeply committed retailers struggle to achieve real impact.

In our experience, there are two reasons for this. First, retailers fail to incorporate sustainability into their daily decision making. At many retailers, decision making is spread out across hundreds of buyers, category managers, procurement managers, store associates, logistics specialists, and ordering managers.

Forty-two percent of the top 50 global grocery retailers have established a sustainability function, and 14 percent now have a "Chief Sustainability Officer." But only 10 percent of these grocery retailers actually measure and incentivize personal performance against key performance indicators of sustainability. In this context, it's not surprising that sustainability often remains limited to a few corporate "lighthouse projects," and rarely trickles down into decisions, such as which products to carry or what to promote next month. If sustainability is not an important factor alongside sales,

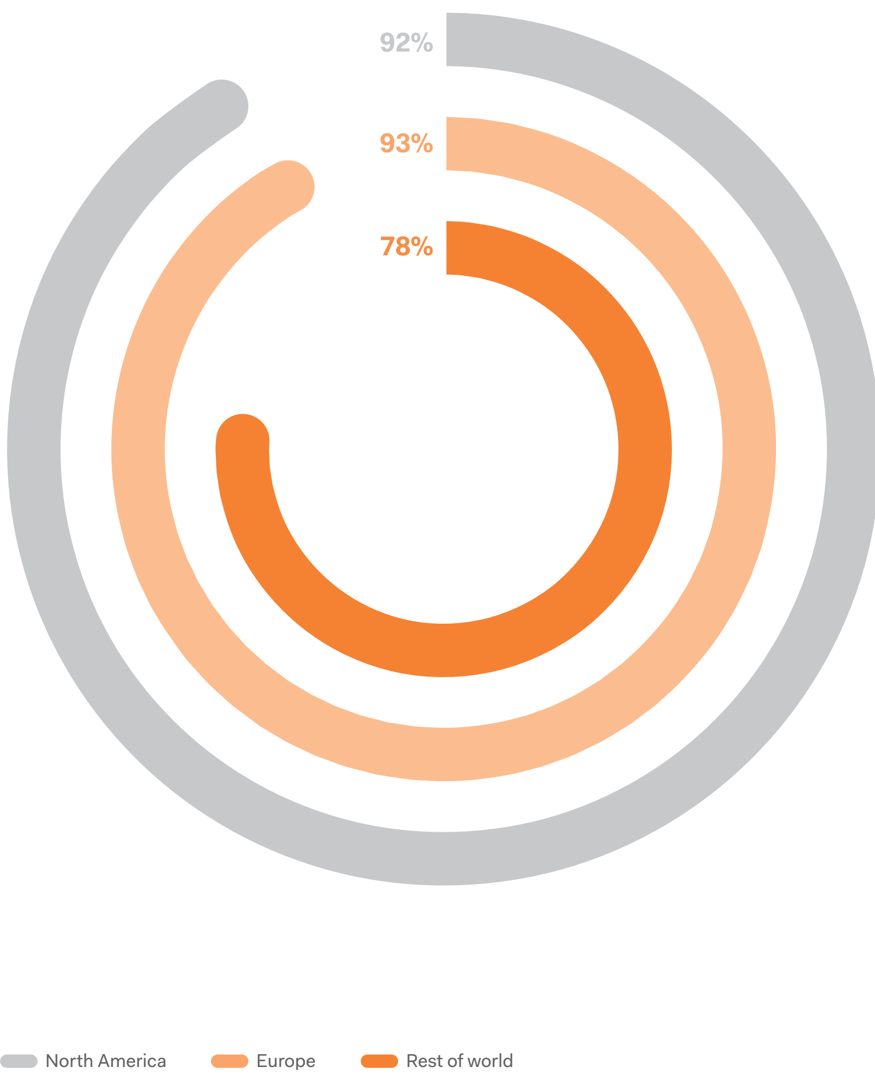
82% of groceries retail chief executive officers cite sustainability as a key priority volumes, and margins, decision makers will tend to ignore it.

The other challenge retailers face is that they cannot manage what they do not measure. In order to make their core business model sustainable, retailers must understand the financial impact of sustainability initiatives. But only eight of the top 50 grocers evaluate how sustainability efforts translate into financial outcomes. As a result, it is hard to define realistic targets, shape decision making, and measure progress. Identifying and generating the right key performance indicators can be a difficult undertaking. Often, there is insufficient data. Even when such data exists, disentangling the link, for example, between improving a company's ecological footprint and its economics is far from straightforward.

MAKING SUSTAINABILITY HAPPEN

Nonetheless, leaders in sustainability have shown that it is not only possible to find ways to measure the impact of their efforts, but also to use this knowledge to achieve their ambitions. Given how decentralized decision making is in a typical retailer, making sustainability a reality requires getting "into the bloodstream" of the whole organization, particularly those working in trading and operations.

Exhibit 1: Share of top 50 grocers worldwide



Our work with clients points to five important success factors:

1. **Clear, strategic intent.** Organizations must establish a clear strategic plan that is regularly reinforced over multiple years. Achieving this requires continuous and unambiguous top-level support. A company's management team must acknowledge the organizational and cultural challenges involved in targeting longer-term and more holistic objectives – while not losing focus on short-term sales, costs, and margins.
2. **Greater transparency.** Measuring the ecological and social footprint of an organization's products and operations is difficult, especially on the product side, as most resources are used earlier on. But the task is not impossible. To date, most retailers have focused on availability, cost, and time-to-market in their attempts to better understand upstream supply chains. In the future, supply-chain management and supply-chain collaboration will need to put as much, if not more, emphasis on resource usage, renewable resources, and social standards.
3. **Defined targets.** Realizing a sustainability strategy requires quantified, operationalized objectives for functions and individuals, for both the short and long term. For sustainability to become a reality, decision makers need to place it on par with financial performance. This requires setting specific goals.
4. **Inclusion of sustainability in daily decisions.** Sustainability needs to be incorporated into daily decision making in a dispassionate, transparent, and quantitative way. To be effective, there needs to be a detailed understanding of how, when, and by whom decisions are being made, as well as how to influence and change them. Just throwing more data at buyers and at category and operations managers is not enough.
5. **Measuring the impact.** Organizations must be vigilant in measuring detailed and quantified results delivered against the targets set. As described earlier, ongoing measurement using key performance indicators is a vital part of embedding sustainability into the organization. Without that, it is very difficult indeed to know how successful the strategy has been, or to ensure that sustainability remains top of mind for those making day-to-day decisions.

CONCLUSION

Building a sustainable retail business model is not easy. It costs money, and is not without risk. The argument for becoming sustainable is fundamentally underpinned by a need: coping in a world of finite resources and increasingly stark trade-offs. The business case for sustainability is fundamentally long term, driven by the need to address emerging but foreseeable realities – ones that only become obvious over time.

However, sustainability offers immediate tangible opportunities to drive growth and reduce costs. In Switzerland, sales of the Coop Group's private-brand sustainability brands and quality labels have reached $2 billion – more than 18 percent of its food revenues. Coop Group's market share in Switzerland in organic products exceeds its overall market share by more than 100 percent. Initiatives like this are driving changes in all aspects of supply chains, including fleet transportation and operational energy use. Similar to adopting energy efficiency initiatives, Marks & Spencer in the United Kingdom has generated more than $168 million in net benefits by reducing packaging, decreasing landfill waste, and improving transportation efficiency systems.

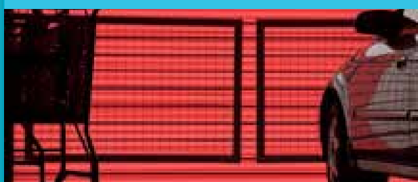
These and other pioneers have shown there is a path to profitability in sustainability. Over the coming decades, companies that follow in the footsteps of these early and intrepid leaders, as opposed to those that do not, may find the key to prospering in an increasingly harsh landscape lies in doing the "right thing" and building climate resilience.

In Case You Missed It (ICYMI)

TOMORROW

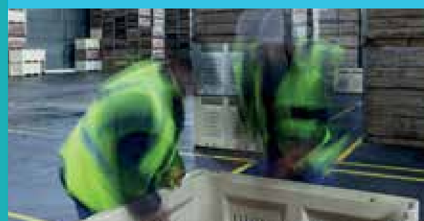
The Future of Retail

Consumer preferences are already leading to new ways of retailing. Where is this all heading and what should retailers and consumer goods manufacturers do about it?



Better but Fewer Jobs

Task automation and robotics will lead to a reduction in jobs in the retail and consumer goods sector, but the remaining jobs will be better in quality and productivity



The Future Supermarket

The supermarket of the future will incorporate technology to inspire customers and give them new reasons to visit brick and mortar stores

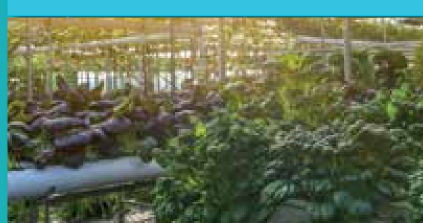
SHORT-READ

AI Integration – A Better Approach

Robotics, AI, and machine learning offer companies the promise of new capabilities if properly integrated with workforce strategy

Sustainable Retail in Grocery

Sustainability will become a key competitive advantage for firms who can translate it from corporate messaging into day-to-day decisions



How to Turn a Job into a Product

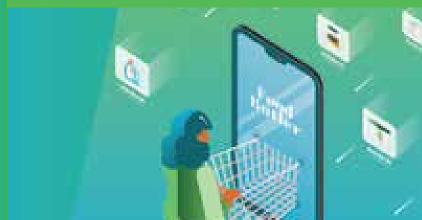
A new framing of product innovation asks retailers and manufacturers to think not just like designers but 'job' applicants looking to perform a service for their customers

Modern Learning for Retail

Rapid digitalization is forcing retailers to revamp their learning and development programs to meet the challenge of equipping their workforce with the appropriate skills for the digital era

Embracing the Information Age

Boardroom travels to the future. The most successful food retailer in the year 2028 discusses the strategic moves in 2018 that set them up for success



The Decline of Center Store: Fight or Flight?

Consumer demands continue to shift away from the center store – particularly brick & mortar players. Should the industry yield to the trend or double down on reinvigorating packaged goods?

LONG-READ

Partnerships: Key to Success in the Online Age

China offers a preview of where e-commerce is heading as partnerships between physical stores and online platforms create omnichannel customer ecosystems

TODAY

Food Safety Foresights

Food safety expert Dr. Hilary Thesmar discusses the latest developments in food safety

Power of Health and Well-Being in Food Retail

Consumers are changing both their definition of eating healthy and the role they expect the retail and consumer goods industry to play

The More Complex Chicken & Egg Questions

FMI's recent research sheds light on just how much consumers really value cage free eggs and slow-growth broiler chickens

Boardroom Contacts

MARK BAUM
Food Marketing Institute
Senior Vice President & Chief Collaboration Officer
mbaum@fmi.org
+1 202 220 0706

MIKE MATHEIS
Oliver Wyman
Global Industry Association Lead
mike.matheis@oliverwyman.com
+1 203 249 6283

Authors

SUE BORRA
Food Marketing Institute
Chief Health & Wellness Officer & Executive Director, FMI Foundation
sborra@fmi.org
+1 202 220 0654

WAI-CHAN CHAN
Oliver Wyman
Partner, Retail & Consumer Goods
Wai-Chan.Chan@oliverwyman.com
+852 2201 1702

ANTONIS CHRISTIDIS
Mercer
Partner and Global Products Innovation Leader
Antonis.Christidis@mercer.com
+1 212 345 0689

CORY CRUSER
Lippincott
Partner, Innovation
Cory.Cruser@lippincott.com
+44 20 7852 7934

TANJA EBNER
Oliver Wyman
Principal, Retail & Consumer Goods
Tanja.Ebner@oliverwyman.com
+49 89 9394 9467

DAVID FIKES
Food Marketing Institute
VP, Communications and Consumer/Community Affairs
dfikes@fmi.org
+1 202 220 0720

TADDY HALL
Lippincott
Partner, Innovation
Taddy.Hall@lippincott.com
+1 212 521 0074

NICK HARRISON
Oliver Wyman
Senior Partner, Retail & Consumer Goods
Nick.Harrison@oliverwyman.com
+44 20 7852 7773

STEFANIE HASSE
Oliver Wyman
Principal, Operational Effectiveness
Stefanie.Hasse@oliverwyman.com
+44 20 7852 7853

THOMAS KOCHAN
MIT Sloan School of Management
Co-Director of the MIT Sloan Institute for Work and Employment Research
tkochan@mit.edu
+1 617 253 6689

MICHAEL LIEROW
Oliver Wyman
Partner, Operations
michael.lierow@oliverwyman.com
+49 89 9394 9757

AXEL MILLER
Oliver Wyman
Partner, Operational Effectiveness
Axel.Miller@oliverwyman.com
+49 89 9394 9854

DAVID ORGEL
David Orgel Consulting LLC
Principal
davidorgelconsulting@gmail.com
+1 908 518 7780

SIRKO SIEMSSEN
Oliver Wyman
Senior Partner, Retail & Consumer Goods
Sirko.Siemssen@oliverwyman.com
+49 89 9394 9757

HILARY THESMAR

Food Marketing Institute
Chief Food & Product Safety Officer & SVP, Food Safety Programs
hthesmar@fmi.org
+1 202 220 0658

FREDERIC THOMAS-DUPUIS

Oliver Wyman
Partner, Retail & Consumer Goods
Frederic.Thomas-Dupuis@oliverwyman.com
+1 514 350 7208

JENS TORCHALLA

Oliver Wyman
Partner, Retail & Consumer Goods
Jens.Torchalla@oliverwyman.com
+49 89 9394 9784

HUNTER WILLIAMS

Oliver Wyman
Partner, Retail & Consumer Goods
Hunter.Williams@oliverwyman.com
+1 312 345 3317

JAMES YANG

Oliver Wyman
Principal, Retail & Consumer Goods
James.Yang@oliverwyman.com
+852 2201 1715

ADDITIONAL CONTRIBUTIONS:

Heather Garlich,
Bobby Gibbs,
Kaitlin Hirsch,
Holger Kirschbaum,
Rachna Krishnan,
John Lezcano,
Sebastian Moffett,
Cyrus Motanya,
Robert Rosenberg,
Sue Wilkinson

DESIGN

Campbell Reid, Creative Head
Vla Stanojevic, Senior Designer
Doreen Tan, Designer

Food Marketing Institute proudly advocates on behalf of the food retail industry, which employs nearly 5 million workers and represents a combined annual sales volume of almost $800 billion. FMI member companies operate nearly 33,000 retail food stores and 12,000 pharmacies. FMI membership includes the entire spectrum of food retail venues; single owner grocery stores, large multi-store supermarket chains, pharmacies, online and mixed retail stores. Through programs in public affairs, food safety, research, education, health and wellness and industry relations, FMI offers resources and provides valuable benefits to almost 1,000 food retail and wholesale member companies and serves 85 international retail member companies. In addition, FMI has almost 500 associate member companies that provide products and services to the food retail industry. For more information, visit www.fmi.org and for information regarding the FMI Foundation, visit www.fmifoundation.org.

Oliver Wyman is a global leader in management consulting that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation. In the Retail practice, we draw on unrivalled customer and strategic insight and state-of-the-art analytical techniques to deliver better results for our clients. We understand what it takes to win in retail: an obsession with serving the customer, constant dedication to better execution, and a relentless drive to improve capabilities. We believe our hands-on approach to making change happen is truly unique – and over the last 20 years, we've built our business by helping retailers build theirs. For more information, visit www.oliverwyman.com.