OLIVER WYMAN

FMI
THE VOICE OF FOOD RETAIL
Feeding Families Enriching Lives
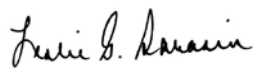
BOARDROOM

Volume 3

Foreword

Welcome to the third 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 retail executives shape strategies and improve performance throughout their organizations.

The food retailing industry today, and in fact the entire retail sector, is undergoing a period of great disruption. In this competitive, consolidating, and connected world, not only is change happening faster than ever, but the degree of change is increasing as well. New entrants to the market, omnichannel competition, and the drive to digital require that retailers rethink the way they do business. It is not enough for the food retailing industry to simply stay abreast of these changes.

Food retailers must prepare for and make a step change; it is critical to take a fresh look at the business, to differentiate yourself from the competition, to revolutionize operational efficiency, and to increase agility. This volume of *Boardroom* brings perspectives from leading experts to guide you in achieving radical change, whether by unlocking funds to grow your business, setting yourself apart from your competition, achieving smarter operations, or helping your business raise its speed limit and accelerate change.

We write about the importance of optimizing your existing and emerging assets, as well as leveraging your relationships with suppliers to provide you with a competitive advantage. We describe approaches you can use to differentiate your business from the rest, by building a winning private brands strategy or focusing on fresh offerings to your customers. We also clarify which of the plethora of emerging new technologies you should consider to take your business to the next level, and we make the case for elevating agility to be a top strategic priority.

FMI and Oliver Wyman created *Boardroom* for those senior executives responsible for guiding their companies in what may be the most challenging period in the industry's history. We believe this edition of *Boardroom* will provide you with insights that will enable you to galvanize your business and put you in position to turn today's disruption and discontinuity into opportunity.

Leslie G. Sarasin

President and
Chief Executive Officer
Food Marketing Institute

Mike Matheis

Global Industry Association Lead
Oliver Wyman

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IDENTIFYING CHALLENGES TO FOOD RETAIL

The food retail industry is no stranger to change and disruption. Over the past 25 years, new players—from so called "category killers," to discounters and online retailers—have entered the grocery market and broadened the definition of food retail. Despite increasing competition, the traditional grocers who remain have proven repeatedly that they can survive and thrive by constantly improving operationally and leveraging a deep personal connection to their customers. Today, however, disruption is coming at an unprecedented speed, and food retailers of all shapes and sizes will have to address these new challenges. But in a business where there is a constant battle over pennies on the dollar, it is often difficult to look up from the day-to-day operations of the business and see what's coming in the next few years.

This is where FMI adds significant value to its members and their trading partners. Through our *Emerging Issues* initiative, we identify issues that have the greatest potential to affect the food industry in the next three to five years. With the help of our strategic partners at Oliver Wyman, we have gathered insights and will share perspectives from focus groups, breakout sessions with the Board of Directors, a survey of our members, and interviews with forward-looking executives in the food retail industry. Here, we share these findings with you so that in your pursuit of excellence you can focus on the now, while also being able to look up and ahead.

In addition, this initiative will help inform FMI's Strategic Plan and set its agenda for future programs and services. Having identified the highest-priority emerging issues, FMI will determine how best to leverage its core services to deliver value to its members, whether through government relations, food safety, thought leadership on total store collaboration, or by acting as the voice of food retail.

FIVE MAJOR ISSUE AREAS

After synthesizing findings from external research and internal focus groups, FMI has identified five major categories of emerging issues: emerging new consumerism, artificial intelligence/technology, workforce, new marketplace, and food production. (See Exhibit 1.)

These issues are far-reaching and intertwined, with the implications from one area having consequences in the others. Each of these is described in greater detail in the following sections.

Exhibit 1: FMI has identified five overarching emerging issues

EMERGING NEW CONSUMERISM
New definitions of value for consumers, beyond just cost, taste, and convenience, calling for involvement in food choices

ARTIFICIAL INTELLIGENCE/TECHNOLOGY
The ways in which technology will transform the food industry and alter the role of humans throughout its processes

FOOD PRODUCTION
Shifts in food production caused by global changes, whether technological, environmental, values-based, or otherwise

EMERGING ISSUES

WORKFORCE
The impact of global changes on hiring, training, management, and corporate culture

NEW MARKETPLACE
Reimagined marketplace and the new role of the physical store

Emerging new consumerism

In some ways, the new consumer is not an emerging issue because it is already here. One of the defining features of the new consumer is demand for specialized products. Over the past year or two, retailers have seen an increase in demand for specialty, ethnic, and organic products, among others, and they expect this demand to continue to grow. Fortunately, over 80 percent of members surveyed are already implementing plans to address this trend.

The new consumer also is increasingly focused on health, wellness, and lifestyle considerations. Although indulgent foods are still in the top five selling items, consumers are putting a greater emphasis on fresh foods and produce. But demand for personalized health and wellness goes beyond healthy food: Retailers are bringing dietitians and nutritionists into their stores and allowing their pharmacies to play a larger role.

Tying in our pharmacies with our food offerings to provide a total wellness offering will be an advantage for us as an industry.

The ability to seamlessly integrate food and personalized care can provide a real competitive advantage.

When it comes to paths to purchase, cost, taste, and convenience are still very important, but the value equation is expanding to include the aforementioned health and wellness concerns, product safety, and corporate social responsibility. The latter is increasingly influenced by activists, nongovernmental organizations (NGOs), and the media. The emerging consumer has a higher degree of skepticism due to the availability of digital information, and she and he expect more visibility into ingredients, sustainability, nutrition, and social impact. Food retailers must focus on building trust with their customers through transparency, experience, and education.

New marketplace

To a certain extent, demand for new product assortment is part of the normal food retail business cycle. However, the emerging new consumer is also ushering in an era of the new marketplace. Across the board, members surveyed agreed that these issues are among the highest on their list of priorities, but many are unprepared for the changes that are coming.

One of the key issues is the speed of change and disruption. Part of the challenge is that as disruption happens at an accelerating rate, retailers still have to remain committed to their core competencies. This means having clean stores with fresh offerings and great staff, while also giving customers what they want, where they want, how they want it.

This expectation from the customer will change the role of the brick-and-mortar store.

We don't see brick-and-mortar [stores] going away any time soon, but retailers must offer customers options or they will not be considered as a place where the customer wants to shop.

Online shopping, delivery, and meal kits are challenging traditional operating models, and, though the store should continue to play an integral part in food retailers' offerings, grocers must determine which omnichannel demands they are going to meet.

This dynamic is also blurring the boundaries of the industry. Nontraditional food retailers have challenges of their own, but they are undeniably playing a larger role in the market. Traditional food retailers are often looking outward for partners to help them achieve scale, whether relying on virtual chains to provide data solutions to members, or finding their own third-party vendors for technology and logistics solutions.

Artificial intelligence/ technology

Advancement in technology provides enablers for the new marketplace, as well as an enhanced ability to gain a competitive advantage. The increasingly digital shopping experience yields a treasure trove of data to food retailers, but to take advantage of that data, food retailers must make the requisite investments in technology or partnerships. Artificial intelligence and machine learning especially allow retailers to make suggestions to consumers that can help increase basket sizes.

We learn much more about our customers through e-commerce than through brick-and-mortar [stores], but we have been able to take the online learnings and apply them in store.

There are obviously other benefits of new technology on top of better consumer insights: One of the top three issues identified by FMI members is the impact of technology on industry operations. As the cost of robotics and related technologies comes down, automated picking and replenishment will become more widespread and automated front ends will become more prevalent. Tech-savvy retailers will also be able to drastically streamline their supply chains, giving them a huge cost advantage.

One of the less understood emerging issues is the impact technology will have on the role of humans in food retail. Companies will need to balance embracing robotics and automation while recognizing that consumers still demand high touch in the right places. They need to identify the areas in which they want to invest and the balance the business strikes between tech and touch will ultimately determine the impact on its labor force.

Workforce

Food retailers will have to consider the public relations and other aspects of potential workforce reductions enabled by technology, but one of the top issues they need to figure out first revolves around talent identification and recruiting. There needs to be a balance between service roles and production, filling traditional service roles while also obtaining higher-paid knowledge workers to support and harness new technology. The right approach will vary by business: some will elect to partner with third-party providers to gain these capabilities, while others will choose to recruit and develop new types of talent in-house.

In both service roles and tech roles, competition for labor is a growing issue for the food retail industry. This competition happens on multiple fronts, with restaurants and nonfood retail posing threats to traditional roles and pure-play online and technology startups vying for engineers and data scientists. The current food retail leadership started in a time where you could start as a bagger and work up to management positions, but that career path is losing its luster for younger workers. Talent strategy should be a priority for all companies as long-standing veterans begin to retire and new skill sets are needed.

One selling point for the industry may be a total rewards approach to compensation and benefits. Over the next few years, companies will have to deal with the challenges posed by a rising minimum wage, but they also have an opportunity to bolster the trust with their employees. One executive remarked that the desire of millennials to make a difference is often underestimated – emphasizing the culture and values of your company, not only the pay, bonus, and benefits, can help attract new talent and build a strong workforce in the coming years.

Food production

Of course, as companies deal with these emerging issues, there are certain areas that require consistent attention. In the new era of both globalization and localization, understanding the regulatory environment and proper food safety practices is crucial for food retailers, and is also a key role of FMI.

As consumers demand more local and specialty food, it is important to keep sight of food safety requirements and increase visibility into the supply chain to ensure products actually meet them. An incident with one retailer negatively impacts the entire industry, and increasing information availability will only exacerbate the effects of these scandals. As demand for transparency and social responsibility grows and omnichannel puts pressure on the supply chain in the coming years, grocers must be leaders in maintaining the integrity of the food supply. Also, as retailers source more products from abroad, a thorough understanding of product-safety standards, and foreign supplier verification requirements, among other things, is critical to preserving the security and integrity of the supply chain.

CONCLUSION

It is sometimes difficult to take a break from dealing with day-to-day challenges and to look to the future. That future presents new obstacles, but it also presents opportunities for those who are able to identify those obstacles early on. Food retailers have already noted that consumer preferences are changing, and they have already begun implementing plans to respond to the new product choices and services that consumers are demanding. These demands involve much more than changing the assortment of food. The new consumer is shopping in a way that is changing faster than ever, forcing food retailers to reimagine industry boundaries and the role of the brick-and-mortar store.

The demand for omnichannel retail and constant technological advancement will change the way companies operate, with competitive advantages going to those with strong data and analytics capabilities. As a result, food retailers will compete more against other industries to attract new talent, not only to support traditional workforce roles but also to meet these newer technical demands. In the face of all these emerging issues, food retailers must always keep food safety top-of-mind and stay aware of government intervention and regulation within the industry.

As FMI and Oliver Wyman have worked through the process of identifying these issues, we have also considered how the issues will impact our agenda going forward. Look for us to leverage our core services to provide you with resources and education that will help you determine the path forward to respond to the disruption in the food retail industry.

Frederic Thomas-Dupuis

Nick Harrison
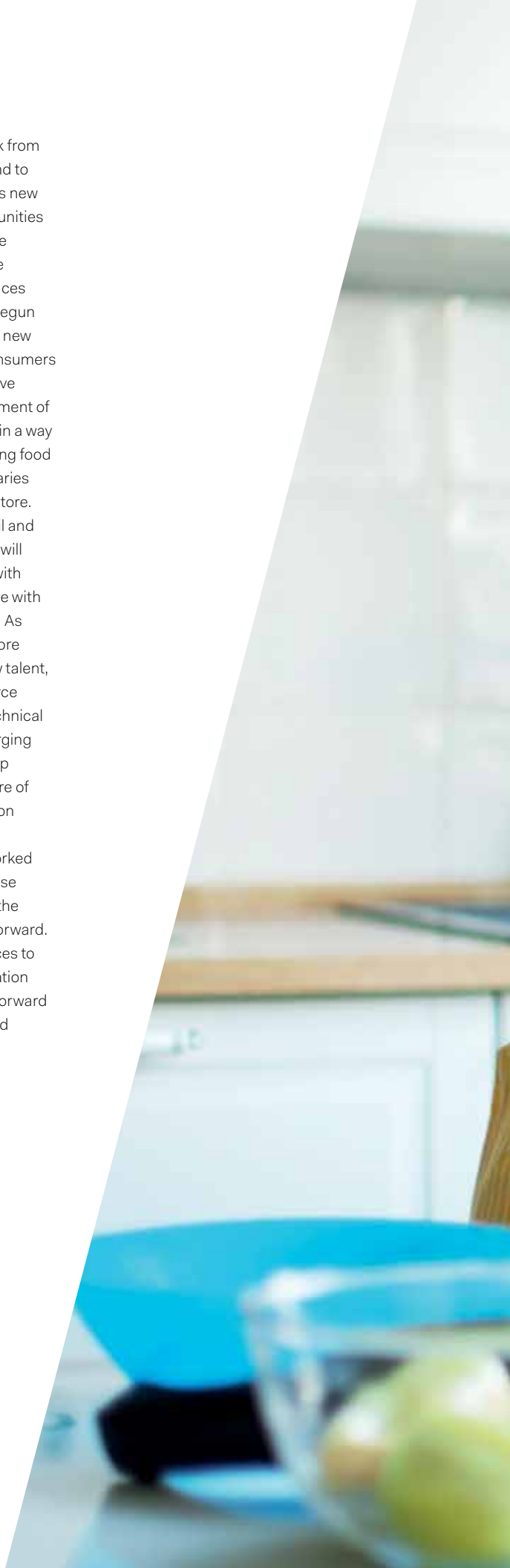
Future of Retail and Consumer Goods: A Preview

Retailers who do not sufficiently meet the challenges identified in the last chapter will struggle to thrive – or will go under. It would be a mistake, however, to think that merely meeting those challenges will be enough to guarantee long-term success. The trends that are affecting nonfood retail – most notably the **rise of online shopping** – are only just beginning to impact food. Consumers report that digital retailers can offer better value and more convenience than a brick-and-mortar experience. Even the most casual observer of the industry could cite aggressive moves by the largest players in this space. Current trends would suggest between 5 percent and 10 percent of sales will be conducted online by 2030. The demand, however, is much greater.

The biggest, most disruptive changes are yet to come: The shape and composition of the **value chain will change dramatically** in response to shifts in how customers shop. Brick-and-mortar retailers will experience new pressures and will need to **innovate** to survive and thrive. The necessity of scale for funding innovations will further drive firm consolidation. In turn, these behemoth retailers will put pressure on manufacturers and drive those that can to develop new, direct-to-consumer channels. Retailers and manufacturers will start to compete directly, in more expansive channels in which neither is completely on home turf.

New intermediaries and platforms will flourish, pressuring the value chain further. Some intermediaries will be technology innovators who can deliver a more-personalized shopping experience. In speaking to industry leaders, almost all agreed that the online consumer food shopping experience is not what it could be. Yet few are taking steps to address its deficiencies. This sets the stage for innovators outside of the retail space to bring forth solutions.

Others will offer fulfilment solutions to mitigate the additional costs of individual order fulfilment and last mile delivery. Not all intermediaries will be upstarts though. Large logistics players who have traditionally been irrelevant to the food sector could now become relevant. Alibaba's Jack Ma credits three elements ("Iron Triangle") to his company's success: one of them is the company's logistics network of third-party providers.

Exhibit 1: Tipping point innovation

COST

Infrequent drop times
Retailer-logistics partnerships to unlock "spare capacity" of vans already passing

Central fulfillment
Automated fulfilment for individual orders

High delivery cost for cold chain
Passive cooling technologies – transport fresh in any truck

CHOICE

Unwieldy product selection
"Buy this recipe" plug-ins

Personalized shopping experience
Weekly shop planning

PRODUCT TIMING

Unpacking goods
In-fridge delivery service

THE FUTURE OF RETAIL IS OMNI-CHANNEL

Most consumers love the idea of shopping online, but share remains low. Why?

People hate shopping online because the web interface can be slow and clunky, providing poor photos and confusing information. Delivery costs are high and waiting at home for a delivery is inconvenient. Worst of all, there's rarely anyone to speak to for help.

People love shopping online because they can consult a limitless catalogue, filter rapidly by feature and price, and consult user and expert reviews. They can also compare retailers for the best prices. Best of all, they can skip physical stores' check-out queues and the traffic jams en route.

An omnichannel model that gives consumers the best aspects of traditional shopping – and spares them the worst – will be a key to the future of retail. Online shopping has already taken over sectors such as music. Yet in other sectors, such as in food, it has been slow to spread.

Our 2017 Digital Shopping survey shows that over 70 percent of consumers are open to shopping online: they either already shop online regularly, or would switch if the experience or value for money improved. While there was a slightly higher prevalence amongst under-45s, even our 60+ age group was 50-60 percent open to online shopping for at least some products. Despite this, online sales still only account for 15 percent of the nonfood market in much of North America and Europe, and just 3 percent in food.

Two factors in particular have been blocking greater penetration by retailers' online businesses to date, thus holding up the growth of online or omnichannel retail overall: the digital shopping experience and the costs of fulfilment and last-mile delivery. However, we think developments in both areas will lead to big advances.

Make It Fun, Make It Easy. The online shopping experience has come a long way in the past 15 years. Still, for many shoppers online browsing is not as intuitive as walking through a store – particularly when assembling complex baskets as customers do for groceries. For customers who are less comfortable with the web or mobile browsers, voice-recognition technology such as Amazon's Alexa or Google Home could help make digital shopping a daily activity. Further innovations – for instance through augmented and virtual reality – could make the online experience more compelling, and add some of the theatre put on by physical stores. For example, VR applications that let consumers experiment with different looks help sell makeup online.

In some respects, the digital experience has the potential even to surpass physical stores. Some sectors might develop personalized curation services, such as those offered by Cladwell and Thread. These provide customers the advice they would get from the best stores – perhaps better, as they work with algorithms that know far more about the customer than even the best shop assistants. This kind of digital technology will advance the more it is used, because it improves after training on larger, more-diverse data sets. It could be licensed to multiple retailers, saving them the development costs.

Efficient fulfillment and last mile operations are essential for all retailers, as the costs of picking and delivering online orders are substantial. In food, for example, delivery fees can run to over 10 percent of the average basket, discouraging new customers. Today, retailers typically either pass some of these costs on to the customer through high fees or a large minimum order, or they take a profit hit from absorbing these – which means they tend to offer fewer delivery slots to save costs. So reducing the cost of last mile delivery will be the key to improving this aspect of the consumer experience and increasing adoption.

By understanding these drivers, we can model the effects of rising consumer demand, fees and other barriers, and the supply-side cost structures of different countries. We can then predict the likely online share in each sector under different scenarios. The UK is one of the world's most advanced grocery markets, but costly packaging and delivery still necessitate fees or minimum basket sizes. Our prediction shows that if current fee levels persist in the UK, then the online share of food retail will probably peak at 8 percent, not far above the current level of 6 percent. However, if costs decline and fees disappear, online share could rise to 16 percent by 2030, and continue on up. It will be easier to reduce delivery costs in densely populated areas, where a large number of deliveries can be made in a given journey time. But if cost-effective delivery also becomes feasible in sparsely populated areas, the online share of food might be as high as 19 percent by 2030.

Partnerships Save Time and Money. To date, many retailers have struggled to deliver these improvements in online shopping. Some of the new capabilities are costly to develop, and many physical retailers lack the right skills. They also have less innovation in their DNA; they face a higher cost of capital than online incumbents and well-funded startups; and they fear that their efforts could result in self-cannibalization.

One solution – which is becoming more prominent – is to obtain the necessary capabilities from elsewhere. Traditionally, a store has sent round its own truck for home deliveries, but from now on someone else might fulfil the task, as DHL does for Amazon Fresh in Germany. A greater variety of services will likely crop up: Passive-cooling packaging is widening the range of options, as non-refrigerated vehicles can be used. That might allow Uber-Eats-type arrangements to emerge, with retailers taking advantage of networks of freelancers. In future, delivery might be supplied as a utility. To enhance the shopping experience, rather than trying to develop voice recognition algorithms in-house, Walmart has partnered with Google Home to use its mature software to deliver a seamless voice-ordering experience.

Forming this kind of partnership is far from straightforward, but retailers of all sizes are increasingly adopting the tactic. Smaller supermarkets such as Morrisons are turning to Ocado, an online supermarket with no stores of its own. Primark, GNC, and Trader Joe's are partnering with e-commerce platform specialists such as Aptos.

So, the consumer of the future will increasingly make purchases online. Penetration will increase with changes in attitude and technical literacy, but mainly because of barrier removal: innovations that make e-commerce more efficient and more fun. The winners in the new era will be those who beat the peloton to offer these sooner, without wasting millions on doomed attempts to develop capabilities in-house. Once the right technical or business process solutions have been found, they can be adopted rapidly across the industry thanks to the rise of specialists and strategic partnerships – which will be major accelerators of online penetration.

Consumers may soon find they have many more reasons to love online shopping than before – and shift their habits accordingly.

Exhibit 2: In France, last mile innovators are pushing into the market (teamed up with incumbents), turning click & collect into delivery models

RETAILER	PARTNER	DELIVERY METHODS	PRICEPOINT[1]
WEBEDIA/ POUR DE BON	CHRONOFRESH	• Run online marketplace Pour De Bon for independent fresh food retailers (butchers, bakers) • Deliveries through existing networks with isothermal packaging	€6.90 (free for orders >€30)
AUCHAN	COLISWEB	• Promises <2h delivery lead times, enabled by efficient courier selection and routing • Trial online delivery in Bordeaux	(General/Subscriber) Express: €8.90/€5.90 By Apt: €5.90/free
CARREFOUR	STUART	• On demand delivery specialist, offering grocery delivery in <1h • Leverages Carrefour's store network and store picking to guarantee delivery timetable	€4.90

Source: Oliver Wyman analysis, "Marché de la 'Foodtech' " and "Last mile delivery"; retailer and partner websites
1. Determined by comparing identical grocery baskets (~€10) across sites and recording delivery fees; also leveraged internal Oliver Wyman assessment in France

As the food ecosystem reconfigures, traditional labels of "retailer" and "manufacturer" will become obsolete as new business models emerge. There will be many successful models, but these preliminary archetypes will likely feature strongly.

- There will be **product-led companies** who make exactly what their customers want; selling through their own stores, but also utilizing other third-party channels and direct routes to market.

- There will be businesses which win customer loyalty by creating **magnetic platforms**, such as Amazon with Dash and Alexa, and Nike with connected sports devices, clothing, and virtual communities.

- We will also see businesses which increasingly, customers go to first, acting as the **choice intermediary**. These companies may know the customer – such as AI assistants automating product selection, or they may know the product really well – such as review aggregators.

- Some businesses will emerge as **customer experience champions**, who offer engaging shopping experiences in-store, online, and over the phone. Stores may not actually hold stock; they might get paid by manufacturers for showrooming their brands.

- There will be companies who bet big to win on the **fulfilment intermediary role** – creating a network of hub-and-spoke sites and delivery routes that any partner can plug into.

- The last archetype will be companies who shape the **retail real estate of the future** – owning and developing key sites based on the shopping patterns and habits of tomorrow's customers.

Firms that do not conform to one or more of these archetypes will see significant share erosion and a loss of enterprise value. **It is not yet known what firms will best take advantage of changes to the value chain to flourish**. Each set of players (incumbent brick-and-mortar retailers, pure-play online retailers, CPG manufacturers) has specific strengths that could play out as winning models if they can adapt appropriately.

But it is not only the competitive landscape that will shift. Fundamental changes are afoot in how retail and consumer companies will interact with their customers, each other, capital funders, and with the governments that regulate them. The responses we have seen from industry have been wide-ranging. From one end, we have heard leaders express hope that governments will play a limited role and "stay out of the way!" during the coming transformations. At the other end, we have heard sizeable

regional players express hope that the largest players be broken up "like Standard Oil." But whatever a firm's stance is, it cannot afford to wait for government to respond. Retailers and manufacturers need to get ahead of these trends.

To help retailers, Oliver Wyman is conducting a study on the following question: Who is preparing for changes ahead, and who is doubling down in the ways of the past? We have engaged dozens of industry leaders including several FMI board members, the FMI SME and global leaders across food retail, nonfood retail, CPG manufacturers, capital funders and government regulators. The study is a collaboration with a series of industry veterans, including Richard Pennycook (formerly Co-op UK), Marc Poulin (formerly Sobeys), and Dominique Schelcher (Vice Président, Système U). This longer-term view will complement Emerging Issues as firms "future proof" themselves.

2. RADICAL EFFICIENCY
UNLOCKING GROWTH OPPORTUNITIES

Chris Baker
Nick Harrison
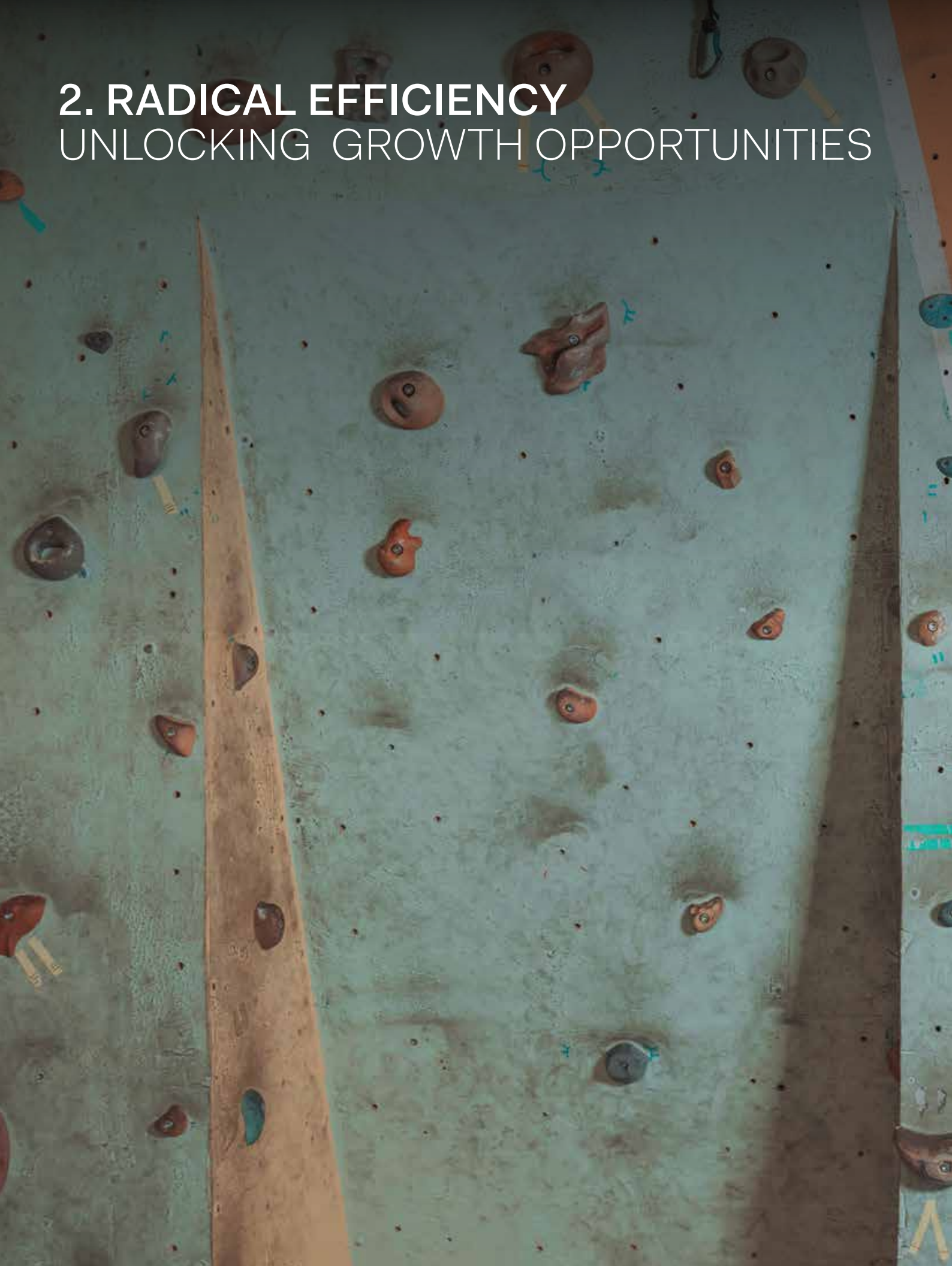
Funding Investments For Growth

THE NEED FOR RADICAL COST REDUCTION

A new reality in food retail

Food retailers are caught in a perfect economic storm, as discounters, online and digital competition, and flat-lining customer demand simultaneously assail their industry. As food retailers confront these challenges, they must make new investments to stay competitive.

The experience of food retailers in the UK emphasizes the importance of responding adroitly to changes in the market. For several years, major UK food retailers had successfully kept discounters at bay, but two factors weakened their position. First, Tesco started raising prices, driving away some customers; second, when the financial crisis struck in the late 2000s, consumers' wallets were constrained and discounters' prices grew more appealing. Incumbents were slow to react to these changes, giving discounters five years to grow.

In the US, food retailers need to act as soon as the cost virus infects their market. Whether in the form of hard discounters or other sources of competition, it is critical to watch for early warning signs and take swift action.

A solution: radical cost reduction

Borrowing a tactic from other industries, food retailers can respond to present challenges by radically reducing costs.

The European telecom industry's example demonstrates the efficacy of this approach. The number of new subscribers per company was declining significantly in the last decade, forcing telecom providers to dramatically cut costs. Over eight years, providers decreased the operating expense per subscriber by 20 percent to 30 percent. They managed demand, reduced unnecessary activities, improved the efficiency of remaining activities, and reduced factor costs.

Likewise, after the financial crisis, wholesale banks were forced to cut costs, reducing overall front-, middle-, and back-office expenses by 10 percent from 2010 to 2015, with plans for further reductions of 10 percent to 15 percent by 2020. Food retailers have always been focused on costs, so there's less fat to trim than in the case of telecom providers and banks.

On the one hand, this renders making initial plays more challenging and less obvious; but on the other, a historical focus on costs is an advantage. Food retailers will have to find new areas for reductions, leveraging their experience with cost management and achieving continued success in areas where they are already efficient.

To achieve "radical" cost reduction, food retailers must go above and beyond the everyday focus. Five major themes should be considered when building out the radical cost reduction playbook:

- **Radically simplifying the business**
- **Utilizing automation and AI**
- **Changing the nature of relationships with suppliers**
- **Managing the asset base more aggressively**
- **Building a cost-conscious culture**

The following sections describe each of these themes and examine success stories, primarily among European retailers.

1. RADICALLY SIMPLIFYING THE BUSINESS

There are three focus points for business simplification: the proposition, the operating model, and the head office.

Simplifying the proposition

One method is to carefully curate your proposition to a limited number of SKUs per store.

In Europe, the Spanish food retailer Mercadona delivers a full supermarket proposition with 9,000 carefully selected SKUs, roughly 25 percent to 50 percent the number of SKUs offered by a traditional supermarket.

The company is a market leader and has experienced remarkable success in the past 10 to 15 years. Not only does their simplified proposition reduce costs – it also contributes to a positive customer experience. Mercadona enjoys a reputation as a simple and fast shopping experience, with a high availability of products

Simplifying the operating model

Food retailers can make a number of changes to their operating model to increase the efficiency of their stores and drive costs downward.

The German hypermarket chain, Kaufland, has a streamlined operating model based on industrialization across all its store activities. (See Exhibit 1.) The chain has far fewer hand-stacked displays and far more pallets than traditional grocery stores.

Simplification of display type in this manner can cut labor costs by 1 percent to 1.5 percent.

Kaufland has also achieved efficiencies in checkout speeds. The checkout process at Kaufland is designed for maximal efficiency, with barcodes featured on both sides of an item. The result: While the average checkout at a traditional supermarket takes eight seconds per item, at Kaufland it takes only four seconds.

Kaufland has gained a massively optimal cost position, closer to that of discounters than that of a normal supermarket.

Simplifying the head office

Zero-based budgeting (ZBB) in the head office can serve as another tool for simplifying your business. (See Exhibit 2.)

ZBB starts with a few basic principles and steps. The first step is to determine a business's "survival minimum" costs, or the cost of base services required for proper functioning without any additional frills. The second step involves determining "strategic minimum" costs, taking into account short-, medium-, and long-term strategic goals. The last step is to set a realistic optimization target that lowers costs and the FTE base from its current state, while still leaving room for strategic development.

ZBB has enormous potential for cost reduction among food retailers. In an example from another industry, one UK insurance provider employed ZBB to reduce head office costs by 45 percent and achieved £100 million in savings over the course of 12 months.

Exhibit 1. Volume share by display type

Hand stacked	24%	
Bulk	8%	
Shelf-ready packaging	41%	
Pallet	28%	

Traditional supermarket: Hand stacked 52%, 1%, 46%, 1%

TRADITIONAL SUPERMARKET   KAUFLAND
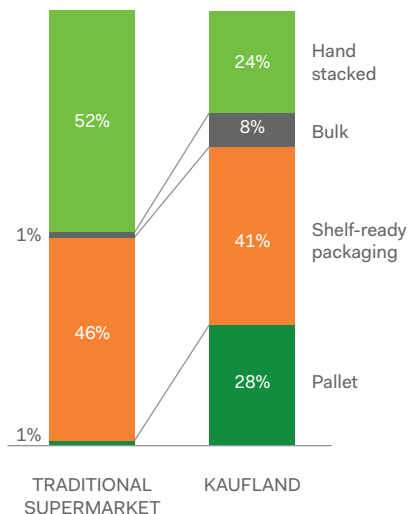
Exhibit 2. Three steps to a zero-based approach to cost

STEP 1: IDENTIFY SURVIVAL MINIMUM
- Base services, such as regulatory reporting
- Justified internal demands, such as health and safety
- But no frills, no comfort, no breakouts

STEP 2: IDENTIFY STRATEGIC MINIMUM
- Short-, medium-, and long-term targets are all considered
- No frills, with only a few people creating impact, but targeted investments are delivered

STEP 3: AGREE REALISTIC OPTIMIZATION TARGET
- Limited amount of extra activities included
- No unnecessary internal demand
- Few activities that do not create extra value

SURVIVAL MINIMUM

STRATEGIC MINIMUM

TARGET   Savings

CURRENT COST BASE
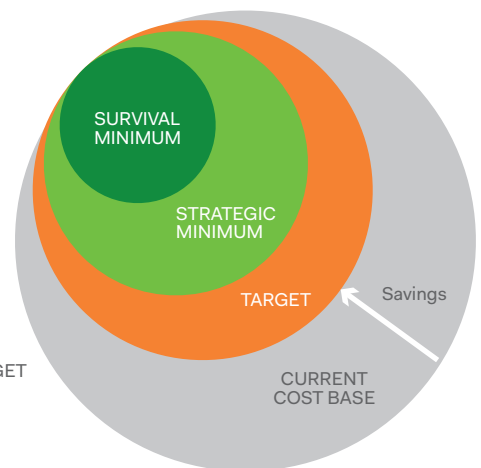
2. UTILIZING AUTOMATION AND AI

Automation is another key tool for food retailers to unlock significant savings.

We are moving toward a world in which the proper "smart" tools serve as companies' primary decision makers on a range of business elements. As algorithms and data science improve, automation and AI can tackle such areas as pricing, assortment, and operations.

Making use of automation, food retailers can make business more cost efficient. For example, the British online supermarket Ocado relies on a lean digital head office, running a £1 billion per year business with fewer than 200 head-office FTEs.

Example: Amazon

Amazon has best-in-class automation capabilities and takes a fundamentally different approach to merchandising. Unlike traditional merchandisers, the company has highly centralized data stores and a largely automated decision-making process. Its small merchandising organization has a narrow focus, and overall the company retains a distinct culture and set of hiring practices.

Amazon merchants in the office supplies space are responsible for roughly 10 times as many SKUs as merchants at traditional retailers. (See Exhibit 3.) Because of greater automation, prices change 50 times as often for Amazon's office supplies than for traditional retailers.

Ultimately, Amazon's automated processes allow it to make better, more competitive decisions more quickly, and with fewer people.

3. CHANGING THE NATURE OF RELATIONSHIPS WITH SUPPLIERS

If retailers develop different types of relationships with suppliers, they can achieve better terms and reduce costs. (See our next report "More Trust Wins More Value".)

For the past five to 10 years, purchasing alliances have been a hot topic in Europe, as food retailers form buying groups to significantly increase their purchasing power and leverage to bargain. Through such alliances, retailers have achieved savings on the order of 200 to 300 basis points (bps) from suppliers.

Alternatively, retailers can form deep partnerships with the right suppliers and undertake joint value creation. By carefully selecting one or more suppliers, forming relationships built on trust, and innovating together, retailers and suppliers can secure mutual gains, improving processes and reducing costs. Oliver Wyman projects the potential savings in the US from supplier collaborations in fresh to be on the order of $7 billion to $10 billion.

Exhibit 3. Amazon: Fewer decision makers, responding more rapidly

SKU PER MERCHANT[1]

~ 10x

> 5,000

500

TRADITIONAL RETAILER

AMAZON

PRICE CHANGES PER DAY[2]

~ 50x

2.5 MM

50 K

TRADITIONAL RETAILER

AMAZON

1. Estimated using products listed on Office Deport and Amazon websites, excluding 3rd party resellers
2. Based on analysis from Profitero
Source: Amazon.com, Officedepot.com, ZDnet.com / Profitero, Oliver Wyman analysis

4. MANAGING THE ASSET BASE MORE AGGRESSIVELY

For incumbent retailers to maximize their fixed asset bases, they must be innovative about "sweating" their assets harder. Collaborations allow one partner to deliver low-cost points of presence while the other makes use of extra space.

EXAMPLE: PARTNERSHIPS IN THE UK

In the UK, Waitrose serves as a pickup point for John Lewis housewares, and several stores carry nonfood items. Likewise, Argos and Sainsbury host collection points, from which customers can pick up their eBay purchases. These arrangements allow retailers to find additional uses for their store locations.

In addition, Sainsbury's has opened up Argos outlets in its stores, allowing Argos to achieve lower cost points of presence.

EXAMPLE: AMAZON AND PROCTER & GAMBLE IN THE US

In the US, Procter & Gamble (P&G) has an arrangement with Amazon in which Amazon can set up fulfillment operations in P&G warehouses.

Through arrangements such as these, food retailers can maximize cash generation from their fixed assets.

5. BUILDING A COST-CONSCIOUS CULTURE

Ultimately, a successful program of radical cost reduction requires that food retailers create a cost-conscious culture. This requires looking at costs throughout the business, including the costs of goods not for resale (GNFR) and identifying the root causes of high costs.

Goods not for resale

Goods not for resale expenses fall into four major categories. (See Exhibit 4.) These categories are retail-specific purchasing, traditional indirect purchasing, supply chain costs, and construction and facility management.

A cost-conscious culture will look at GNFR spend holistically in order to identify areas with potential for cost savings. Success stories from GNFR cost-reduction programs include:

- A European retailer that achieved $200 million recurring savings on $2 billion scope
- A global B2B company that achieved $260 million recurring savings on $9 billion scope over three years
- A global service provider that achieved $500 million recurring savings on $12 billion scope over three years

Deeply examining their GNFR spend, food retailers can save on a recurring basis.

Exhibit 4. Four categories of goods not for resale (GNFR) spend

Retail-specific purchasing	Traditional indirect purchasing	Supply chain costs	Construction and facility mgmt.
Packaging	Marketing	Transportation of goods	New building construction and renovation
Sales shelves and furniture	Energy	Logistics services	Maintenance
Etc.	Waste treatment	Etc.	Cleaning
	IT and telecom		Security
	Temporary labor		Etc.
	Office supplies		
	Etc.		

Cost root causes

Ultimately, a truly cost-conscious culture seeks out the root causes of its highest costs and addresses them head-on.

Consider the challenge of high shrink in the fresh category. (See Exhibit 5.) This problem can be traced back to replenishment issues, cultural issues in stores, product handling, and a lack of range differentiation.

If food retailers look for root causes of costs throughout their stores, they will be able to tailor their solutions to be more effective.

Exhibit 5. Illustrative cost problem and root cause

PROBLEM

Shrink caused by poor quality and freshness of perishables

ROOT CAUSES

Replenishment issues

Cultural issues in stores

Product handling

Lack of range differentiation

BAD PEACHES ON SALES FLOOR

GOOD PEACHES IN STORE BACKROOM

CONCLUSION

As other industry sectors have made vast improvements in their cost position, retailers may take heart from their success – but they also need the vision to think big. Substantial increases in cost savings have not been achieved through small-scale incremental change to existing business models. Instead, retailers need to go back to the drawing board – leaving behind the "this is how we've always done it" mindset. To reduce costs anywhere from 20 percent to 40 percent, retailers need to find ways to simplify their business, increase automation, manage their asset base more aggressively, change the nature of their relationships with suppliers, and build a cost-conscious culture.

Once companies have scanned the horizon for increased cost pressures in their market and have precisely diagnosed their present cost position, they should develop a set of reduction plays to challenge their current models. Optimal plays will vary from business to business, and thus it is critical that each retailer understand their points of competitive advantage. By taking cost reduction to the next level, food retailers will be able to fund significant investments for important growth. This kind of change doesn't happen overnight, but we expect to see more retailers in more markets attempting similar programs over the next few years.

Nick Harrison

More Trust Wins More Value

CREATING JOINT VALUE WITH SUPPLIERS CAN UNLOCK BILLIONS

Retail business models are under pressure as they adapt to cost inflation, online and discount competitors, and rapidly changing customer needs. Every part of the business is under increased scrutiny, including the retailer's relationship with suppliers. As a result, some retailers have taken to squeezing their suppliers harder. While this can yield short-term benefits, we are increasingly seeing a trend for retailers to work with suppliers to create new sources of value and deliver higher, more sustained savings. This report describes the steps to move supplier relationships away from a "them vs. us" mindset, unlocking bigger savings by focusing on improving the efficiency of the supplier-retailer system and redesigning it for mutual benefit.

Around the world, we are supporting retailers who are conducting detailed reviews of their processes with a few key suppliers and tapping into savings of millions of euros. Scaled up to market level, the benefits could be very significant indeed. (See Exhibit 1.)

In these new models, the interactions between retailer and supplier change fundamentally, from two people on either side meeting face-to-face just twice a year, to a structure that incorporates dozens of departments and encourages regular engagement and innovation across common strategic objectives – all based on respect, trust, and joint innovation. We call this approach "joint value creation." Making this transition involves three key steps: select the right suppliers to innovate with; build a

respectful, productive relationship based on trust; and innovate together on new and improved processes.

SELECT THE RIGHT SUPPLIERS TO INNOVATE WITH

It's important to point out that not all suppliers are right for the joint value creation approach and, for the majority of medium and smaller suppliers, it is right to continue with the status quo of tough negotiations and limited interactions. To identify those suppliers who could be innovation partners, leading companies use a framework to review the relationship. (See Exhibit 2.)

Exhibit 1: Scope of savings available from supplier collaborations in fresh categories
Joint value creation encourages engagement with partners

COUNTRY	POTENTIAL SAVINGS AVAILABLE	
	Dollars (BN)	Local currency (BN)
China	0.9–1.3	¥5.9–8.9
France	1.5–2.3	€1.4–2.1
Germany	1.3–2.0	€1.2–1.8
UK	1.7–2.5	£1.4–2.1
USA	6.8–10.2	$6.8–10.2

Source: Planet Retail and Oliver Wyman analysis

Exhibit 2: A framework for identifying the right suppliers for joint value creation

Picking the right supplier is a critical step in the process

DIMENSIONS	SCORE	RATIONALE
PRIORITIES To what degree does the supplier see joint value creation as a priority?	LOW — HIGH 1 2 3 4 5	Without a strong business incentive behind the program with high stakes, the right resources may not be allocated on both sides.
STRATEGIC POTENTIAL How important will this supplier be in this market in the future?	LOW — HIGH 1 2 3 4 5	Markets will evolve so it is important to recognize and invest in relationships that could yield advantages like exclusive access to products and services in the future.
TRUST What level of trust is there among senior management?	LOW — HIGH 1 2 3 4 5	Trust is critical to the success of a joint initiative. Senior management at both parties need to buy in to the change and act as role models for the required change in mindset. Both parties need to see the venture as an opportunity and not as a new way to get profit out of each other.

BUILD A RESPECTFUL, PRODUCTIVE RELATIONSHIP BASED ON TRUST

The objective for any project of this kind should be to build sustained competitive advantage. This will only happen if, early on, the retailer and supplier commit to a multiple-year journey built around a defined, respectful, and ongoing framework that builds trust over time. In successful transformations, there are both process changes and attitude changes on all sides.

Both parties must have a shared target. This is often complex to agree upon: Typically, the target is not typically just about price and volume but rather market share, customer satisfaction, product quality and innovation, supply chain efficiency, and other broader issues.

With such a target, both sides work more closely together, for example by setting up joint teams around product development, forecasting or logistics management, or at the very least increasing the frequency of joint meetings. In our experience, the partners should aim for top management to meet at least twice a year, and operational teams (including product development, supply chain, quality, and forecasting) should meet at least monthly.

The objective in all of these meetings is to ensure that progress on the joint projects is tracked, new collaboration options are identified and investigated, and day-to-day issues are resolved promptly. However, increasing the frequency of meetings is pointless if both companies do not share relevant data and are not aligned on which KPIs to track and how to calculate them. A powerful approach can be to create joint scoreboards that collate live data from retailer and supplier and are used to help top management and operational teams on both sides look at exactly the same information. (See Exhibit 3.)

The companies with the most advanced programs often change the incentives schemes of their employees to align with the KPIs defined for the joint relationship. Once employees from both parties are incentivized to build a joint success story, the positive outcomes of the programs often increase two- or three-fold.

INNOVATE TOGETHER ON NEW AND IMPROVED PROCESSES

By challenging existing processes together, both the retailer and the supplier will benefit. Based on recent experience, we see product development, forecasting, task de-duplication, and supply chain as processes where collaboration can ignificantly and rapidly benefit the bottom line.

Product Development

Across a product's development life cycle, retailers and suppliers will interact on numerous occasions. Typically, however, the processes in place at these points have not been designed collaboratively, nor do they operate jointly.

A joint approach, in contrast, works differently. (See Exhibit 4.) By asking, "How do we increase the joint returns from this new product?," retailers and suppliers can end up sharing insights and data to improve the end-to-end process: increasing the attractiveness of the new products actually developed, cutting back on the number of approval loops, delivering a shorter time to market and less uncertainty, and enabling better ordering and production planning once the product is launched. Joint product development is often focused on white-label brands – a key differentiator for most retailers.

Exhibit 3: An illustrative screenshot of a supply chain scoreboard to support data sharing

By aligning KPIs, retailers and suppliers are able to get on the same playing field

SUPPLY CHAIN SCOREBOARD

ECONOMIC PERFORMANCE | SERVICE LEVEL & QUALITY

Indicator	Granularity / Calculation	Last month level	YTD level	vs. target
Sales	Volume & value	340 T	1,905 T	
Promotion share	% of sales volumes	10.0%	7.0%	
% Shrink	% of net sales value	2.0%	1.7%	
- SKU 1	-	1.2%	1.5%	
- SKU 2	-	2.6%	3.0%	
- SKU 3	-	2.2%	2.8%	
- SKU 4	-	2.0%	2.7%	
- SKU 5	-	1.7%	2.1%	
- SKU 6	-	1.4%	1.8%	
- SKU 7	-	1.1%	1.7%	
- SKU 8	-	3.4%	3.6%	
Retailer forecast accuracy	% Abs difference between forecasted & sales volumes	27%	25%	
Supplier forecast accuracy	% Abs difference between forecasted & ordered volumes	12%	15%	
On-shelf availability	% OSA based on hour-by-hour sales analysis vs. comparable store	95%	94%	
- SKU 1	-	96%	97%	
- SKU 2	-	86%	88%	
- SKU 3	-	90%	92%	
- SKU 4	-	90%	91%	
- SKU 5	-	95%	97%	
- SKU 6	-	92%	90%	
- SKU 7	-	89%	87%	

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Exhibit 4: Product life cycle with joint collaboration

Duplicative actions can be eliminated

	RETAILER	SUPPLIER	LIKELY OUTCOME
PRODUCT (RE)DEVELOPMENT	"I provide insights on what I want my own-brand products to be like." "I share data on category gaps to identify opportunities." "I encourage my category directors to share their strategies."	"I analyze the data to identify gaps in the offer that we could fill." "I define and develop a product concept in line with the category strategy and market dynamics." "I share information around estimated cost, shelf price, and margins."	New product launches are successful in driving increased sales and margins for both parties • Development costs are reduced on the supplier side • Retailer benefits from more exclusive products fitting exactly its needs
SUPPLY CHAIN	"I monitor stock levels and predict when replenishment will be needed." "I monitor sell-by dates to manage waste."	"Using shared data, I'm best placed to lead on production scheduling and operations." "I look at ways of moving my products from factory to distribution center or store faster."	The end-to-end supply chain process length and its cost are, overall, reduced Fresher products are available on the retailer shelves, on-shelf availability is increased, and shrink is reduced
SALES	"I'm best placed to define product placement." "I drive regular marketing activities in-store."	"I analyze the data to help the retailer to have a better product assortment." "I participate in-store marketing activities."	Store layouts and shelf planograms are redesigned together, underperforming SKUs are cut Supplier acts like an external adviser and category captain

Exhibit 5: Step changing supply chain time efficiency for fresh products
Sharing forecasts, even not completely accurate ones, can optimize processes

STANDARD PROCESS: 24 HOURS

OPTIMIZED PROCESS: 12 HOURS

Forecasting

The quality of forecasting is essential to ensuring products are delivered to the retailer in the right quantities, at the right time, and at the lowest cost possible to the supplier. Often, however, this doesn't happen. In some retailers, we've seen examples where two different teams prepared two different forecasts, neither of which had been shared with the supplier.

A first step is to institute a simple process of cross-checking forecasts across all parties; this process enables numbers to be aligned, refined, and improved. The best-in-class collaborations go a step further and ensure a common forecast across retailer and supplier, all based on the same raw data inputs. As a result, products are available when and where customers want them, to the quality they expect. Costs from waste and lost sales go down, and suppliers can deliver lower production cost because of lower order volatility and more forward planning.

Duplicate Tasks

It might be surprising how much time can be spent on tasks that both retailer and supplier carry out, such as harmonizing data, following through ordering processes, and duplicating quality control checks. Eliminating these allows both parties to invest more time in activities that can directly improve the bottom line.

It is often not complicated to carry this out. For example, ordering forms can be submitted and processed online, rather than across two systems, each requiring a manual input. Similarly, the same quality tests might be run when products leave the factory and again when they arrive at a retailer's distribution center; but if the manufacturer and retailer share results, one set of checks could be dispensed with.

Supply Chain

Supply chain processes are often inherited from historical ways of working, making them ripe for optimization, particularly in fresh categories where small amounts of lost time radically affect shelf life.

The most dramatic supply chain transformations we have seen have focused around ensuring fresher products, less shrink, and improved sales by using less busy delivery windows; finding alternative delivery routes; sharing delivery routes with other suppliers or retailers; using third-party logistics providers; centralizing certain steps, such as packing and picking; and sharing data.

Having an understanding of which pieces of information are critical at each stage of the supply chain makes it very easy to speed up the most important steps. We often see retailers holding off sharing information with suppliers until they are confident of its exact accuracy. In fact, by sharing even vaguely accurate forecasts with suppliers, retailers allow manufacturers to start production while they refine their exact order, allowing for less delay in the end-to-end process. (See Exhibit 5.)

1. SUPPLY CHAIN OPTIMIZATION FOR ULTRA-FRESH PRODUCTS

Context

A grocery retailer in Eastern Europe wanted to generate a step change in its cost position and quality levels in fresh, and came to us to support a transformation of their relationship with a key supplier of fresh produce.

What we did

First we mapped each step of the existing joint processes, including pain points and opportunities for improvement. Using this approach, the retailer and the supplier then identified four joint ambitions: begin a new era of operational and strategic collaboration, jointly driving the business as partners; deliver a step change in the speed of the joint supply chain to claim back over 24 hours in product shelf life; jointly improve the accuracy of order forecasting to enable cost-efficient forecast-based production; and begin a continuous improvement program focused on product quality and shelf life.

We established regular meetings of the retailer's and supplier's strategy boards, operations committees, and forecasting groups, to shift interactions away from the negotiation teams, and fed them new, shared KPIs.

Instead of multiple forecasts from both parties, we established two shared forecasts and created alignment on the approach taken to forecasting and ordering. A monthly review of the promotions pipeline served to increase the notice the supplier got for promotional items.

Results

The new structure and team meetings brought all hands on deck for developing category strategies and analyzing market trends. The more aligned approach made it easier to work together to create a faster supply chain that saved money by delivering less wastage, and made money by increasing the availability of fresh products that customers wanted to buy.

We reduced forecast errors from more than 30 percent to within less than 10 percent. By jointly reviewing the promotions pipeline, special offers became more successful because the products were available when and where they were supposed to be, at the right time and in the right quantities.

2. REDUCING TIME-TO-MARKET OF OWN-BRAND PRODUCTS BY 30 PERCENT

Context

A European grocer identified that a slow product development cycle for its own white-label products was a strategic weakness. Together with one of its key suppliers for own-brand products, the retailer aimed to make this process faster, more efficient, and better able to respond to changing consumer demands.

What we did

We examined the end-to-end product development process across both companies, identifying many redundancies, such as data duplication and unnecessary product revisions due to poor communication at the start of the process. In addition, we helped the companies build capabilities and processes that allowed for new development projects to be accelerated, paused, or cancelled, depending on the changing needs of the retailer and customers.

Results

The product development process became much more nimble and able to respond to changing priorities. The average time to get a new white-label product on shelves was cut by 30 percent, with priority projects moving even faster.

CONCLUSION

In most markets, the pressure on retailers and suppliers is increasing. However, around the world, billions of dollars in benefits go untapped because shared processes between retailers and suppliers are poorly optimized and no action is being taken to improve the efficiency of the overall system.

Unlocking these savings requires a radical change in the working relationship between retailers and suppliers, by forgetting about combative negotiations and putting aside old habits and rivalries to focus instead on generating more value together. Indeed, the biggest challenge is changing the culture from arguing over scraps to generating high value, collaborative work.

Our joint approach to creating value can dramatically improve innovation speed, sales, promotions performance, and overall supply chain efficiency to the benefit of both retailers and suppliers. In mature markets, such joint programs usually lead to an increase of gross margin of 5 to 10 percent for both parties – a huge prize indeed.

3. DRASTIC DIFFERENTIATION
REFRESHING THE VALUE PROPOSITION

George Faigen

Tanja Ebner

Private Brands

LOW PRICE ALTERNATIVE OR STRATEGIC ASSET?

Private brands are evolving beyond the traditional role of acting as generic entry-price options, and are becoming major assets for retailers. In European markets, private brands have been used by food retailers to connect with consumers while improving profit and revenue. Though private brands have risen in popularity in the US in recent years, a significant opportunity exists for further market penetration. There are a number of lessons American retailers can learn from their European counterparts. When building out a private brand strategy, retailers should consider the following themes:

- **Rising consumerism** has led to wider demand for innovation

- Private brands can serve as a mechanism for **differentiation**, by allowing retailers to connect with consumers faster and better

- Through a clear focus on **brand building**, retailers can define themselves more clearly and control what they are "famous" for

- The **economics** of private brands can be game changing

There are many winning approaches for private brands. Once retailers have assessed their strategic priorities and the opportunities in their markets, they can harness the full potential of private brands as an asset.

PRIVATE BRANDS: A NEW TERMINOLOGY

This report uses the term "private brands" throughout to refer to products sold under the banner of a food retailer. Other commonly used terms include generics, own brands, private label, and store brands. Successful private brands, however, go beyond generic items, beyond a label, and often beyond the confines of a given store. To emphasize this expanded vision of private brands and to encourage a brand ownership mentality among food retailers, we use the term "private brands."

To "win" with private brands, food retailers must adopt a broader strategic outlook. There are four themes to consider when crafting a private brands strategy: **rising consumerism, differentiation, brand building,** and **economics**. In the following sections, we'll describe each of these ideas and consider some examples of success, primarily among European retailers.

1. RISING CONSUMERISM

In response to rising consumer demand for innovation, private brands in the US have begun to evolve. But while some have shifted away from basic generic items, most private brands do not yet embody the ideal of well-regarded, high-quality products. Retailers have an opportunity to further refine their strategy to deliver to consumers.

Current penetration of private brands

In comparison to many European countries, the US exhibits somewhat low levels of private brand penetration. (See Exhibit 1.)

The penetration of private brands in the US in 2014 was roughly 18 percent, less than half of the level seen in Switzerland, the UK, and Spain. Even leaving room for differences between American consumers and their counterparts around the world, there still appears to be quite a bit of headroom for growth in private brands in the US.

Percentage value penetration

Country	%
Switzerland	44%
U.K.	41%
Spain	40%
Germany	34%
Portugal	31%
Belgium	31%
Austria	29%
France	28%
Netherlands	27%
Denmark	26%
Sweden	26%
Finland	24%
Norway	23%
U.S.	18%
Canada	18%
Italy	18%
Greece	17%
Turkey	16%
India	5%
Brazil	4%
China	1%
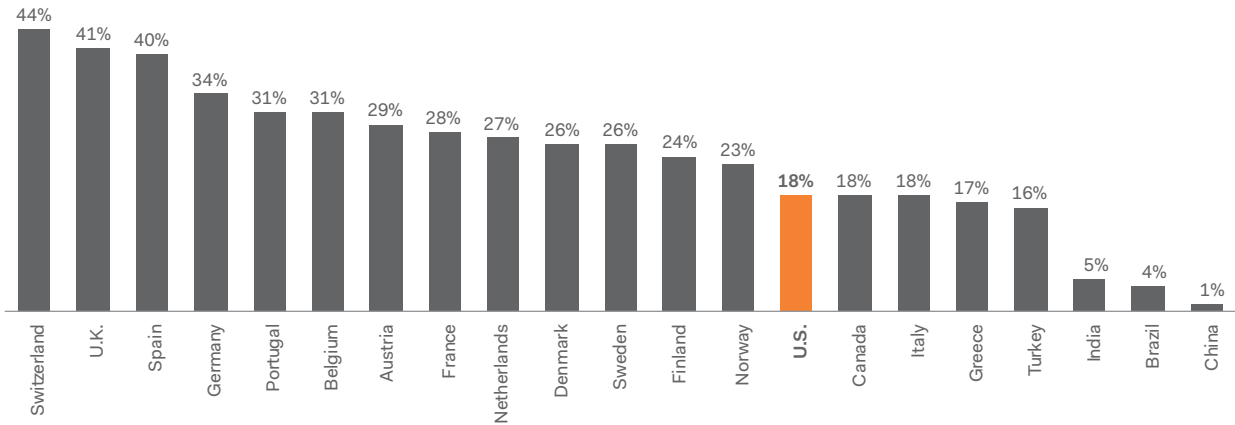
Source: Nielsen 2014

Attitudes of American consumers

Consumer surveys have demonstrated that US consumers perceive many aspects of private brands in a positive light. (See Exhibit 2.) Summary responses indicate US consumers are often more likely than their European counterparts to view private brands as smart purchases.

In Oliver Wyman's annual consumer survey, the customer perception map (CPM), several retailers were identified as "winners," indicating consumers found their combination of offer and value appealing. (See Exhibit 3.) Attractive retailers are positioned on the CPM to the right of the dashed line. We have called out a few of the successful US grocers that also have strong private brand offerings, suggesting a wide range of consumer interest.

From Whole Foods Market with its more expensive offerings, to Aldi with its affordable products, retailers that have focused on private brands have seen a payoff in consumer perceptions.

The CPM survey results also indicate that private brands are appealing to consumers of varying demographic backgrounds. Even among those shopping at the discount retailer Aldi, 34 percent of households had average annual incomes greater than $75,000. Shoppers at Aldi broadly fit the same demographic profile as shoppers at major national and regional retailers.

There is a clear demand among American consumers for private brands. While penetration in the US has not yet reached European levels, consumer attitudes toward private brands are positive, and American consumers tend to hold retailers with well-

developed private brands in high regard. With the arrival of Lidl in the US, American consumers will have access to another set of strong private brands. As a result of Lidl's entry into the US market, we are likely to see an increase in the level of competition in the private brands space. But at the same time, this could hasten a tipping point in the US, after which private brands become a mainstream choice for American shoppers.

Given that consumer tastes and demands have grown to encompass a wider array of products in recent years, retailers can capitalize on growing interest in private brands, while providing their consumers with an innovative assortment.

Exhibit 2: Consumer perceptions of private brands (Europe vs. US)

CONSUMER SURVEY	EUROPE	US
Private brands are usually extremely good value for money	69%	74%
Private brands are a good alternative to name brand products	70%	75%
I am a smart shopper when I buy private brand products	63%	71%

Source: Nielsen 2014 (n=30,000, 60 countries)

Exhibit 3: Customer perception map

GREAT OFFER — POOR OFFER (vertical axis)
POOR VALUE — GREAT VALUE (horizontal axis)
Winning / Losing

WHOLE FOODS, TRADER JOE'S, COSTCO, ALDI

2. DIFFERENTIATION

An effective private-brand strategy enables retailers to differentiate themselves and connect with consumers more quickly and effectively. Whether through assortment, services, formats, or other forms of engagement, retailers can use their private brands to define and differentiate themselves to shoppers. The following case studies demonstrate potential options for engaging consumers through private brands.

CASE STUDIES

MERCADONA

Mercadona, a market leader in Spain, has had enormous success over the past 10 to 15 years because of its popular private brand offering. In order to set its stores apart and respond to consumer needs, Mercadona has focused on providing an extensive offering of specialized products. For instance, Mercadona's private brand contains over 1,000 gluten-free products, accounting for roughly 16 percent of its product range. Beyond that, Mercadona strives for a wide variety of products that meet other consumer preferences.

MARKS & SPENCER

UK retailer Marks & Spencer has differentiated itself by expanding into a variety of services and products, ranging from luxury cakes to fast food options.

Marks & Spencer has expanded its market beyond that of a traditional grocer, so that it competes for consumers with fast-food outlets, takeaway restaurants, caterers, and more. The Marks & Spencer brand has become widely known and associated with a far-reaching expanse of products and services.

TRADER JOE'S

In the US, Trader Joe's has earned a reputation as a retailer with a strong private brand offering. Trader Joe's stores carry exclusively private brand products sold under the "Trader Joe's" banner. Consumers often identify as "fans" of the retail chain, because of their emotional attachment to its products. In addition, Trader Joe's prides itself on high employee engagement, which leads to better customer service and a well-regarded store culture.

The growth of Trader Joe's in recent years indicates consumer satisfaction with its private brand approach and suggests the growth potential for private brands in the US more broadly. (See Exhibit 5.)

Ultimately, there is more than one way to differentiate your stores through private brands. Several paths are available, from specialized assortment to an array of services and formats. No matter the mechanism, retailers can use their private brands to set themselves apart from their competitors and strengthen their connection to consumers.

Exhibit 4: Full scope of Marks & Spencer private brands offering

Exhibit 5: Trader Joe's growth from 2007-2016
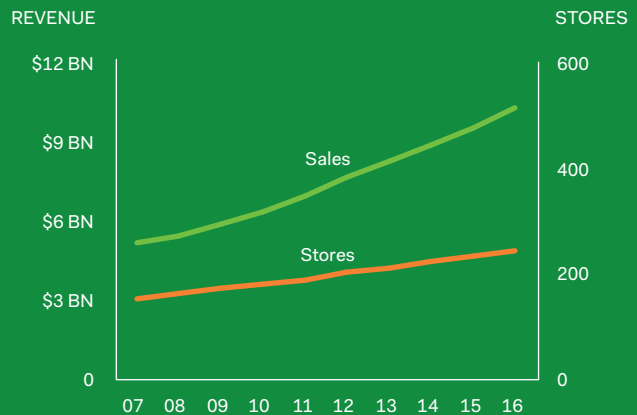
3. BRAND BUILDING

Given the demand among consumers for private brands, and the value of those brands as differentiators, retailers must ask themselves what they want to be known for and how private brands can play a role in helping them achieve that goal.

Beyond a store brand

Private brands come in all different shapes and sizes. At one extreme, they can become brands in their own right, extending beyond the banners who created them. As an example, the French retailer Monoprix's brand has achieved major success and is now sold by Amazon. Similarly, the President's Choice brand has taken on a life of its own, to such an extent that Loblaw's is touted as the home of President's Choice.

Private brand personalities

There are several dimensions that help determine a private brand's "personality," such as quality, price point, and other more specialized attributes. (See Exhibit 6.) Once a retailer has narrowed down the characteristics it would like to be famous for, the choices along these dimensions follow naturally.

Retailers often choose to develop multiple private brands to meet the various needs and interests of their customers. For retailers with a wide-reaching private brand offering, it can make sense to group products logically along a broad range of dimensions.

Mercadona's private brands tend to be defined by department. (See Exhibit 7.) So the food items across all price points make up the Mercadona private brand, while household products across all price points make up Bosque Verde.

Conversely the private brands for Coop in Switzerland tend to align with price points. (See Exhibit 8.) Fine Food serves as Coop's premium brand, while Prix Garantie fills the entry-price niche.

Once retailers assess their strategic needs and consider the role of private brands in fulfilling them, they must develop brand architecture to match. In other words, retailers must determine which categories, price points, and attributes to cover with their private brand(s), as well as the optimum configuration of brands to do so. The economics of private brands, covered in the next section, provide a useful balance against SKU proliferation.

Exhibit 6: Private brand assortment, by category, price point, and other attributes

FRUIT & VEG   MEAT   DAIRY   GROCERY   SNACKS   BEVERAGES   HOUSEHOLD   BEAUTY   PET FOOD   NON-FOOD

PREMIUM
(1–2 umbrella PB + category specific PB)

STANDARD / COMPETENCY
(1–2 umbrella PB + category specific PB)

Pet food   Non-food

PRICE ENTRY
(1–2 umbrella PB + category specific PB)

PRIVATE BRAND ATTRIBUTES: organic, regional, sustainable, gluten-free, kids, fair trade, low calories, country of origin, healthy, vegetarian...

Exhibit 7: Mercadona private brands (organized by department)

| MERCADONA | | Compy | BOSQUE VERDE |
| | | Deliplus | HACENDADO |

FRUIT & VEG	MEAT	DAIRY	GROCERY	SNACKS	BEVERAGES	HOUSEHOLD	BEAUTY	PET FOOD	NON-FOOD

PREMIUM
(1–2 umbrella PB + category specific PB)

STANDARD / COMPETENCY
(1–2 umbrella PB + category specific PB)

PRICE ENTRY
(1–2 umbrella PB + category specific PB)

Pet food

Non-food

PRIVATE BRAND ATTRIBUTES: organic, regional, sustainable, gluten-free, kids, fair trade, low calories, country of origin, healthy, vegetarian...

Exhibit 8: Coop private brands (organized by price points and attributes)

COOP	FRUIT & VEG	MEAT	DAIRY	GROCERY	SNACKS	BEVERAGES	HOUSEHOLD	BEAUTY	PET FOOD	NON-FOOD

FINE FOOD

PREMIUM
(1–2 umbrella PB + category specific PB)

COOP Qualité & Prix

COMPETENCY
(1–2 umbrella PB + category specific PB)

PRIX Garantie

PRICE ENTRY
(1–2 umbrella PB + category specific PB)

Pet food

Non-food

freefrom
Karma
naturaplan
•••

PRIVATE BRAND ATTRIBUTES: organic, regional, sustainable, gluten-free, kids, fair trade, low calories, country of origin, healthy, vegetarian...
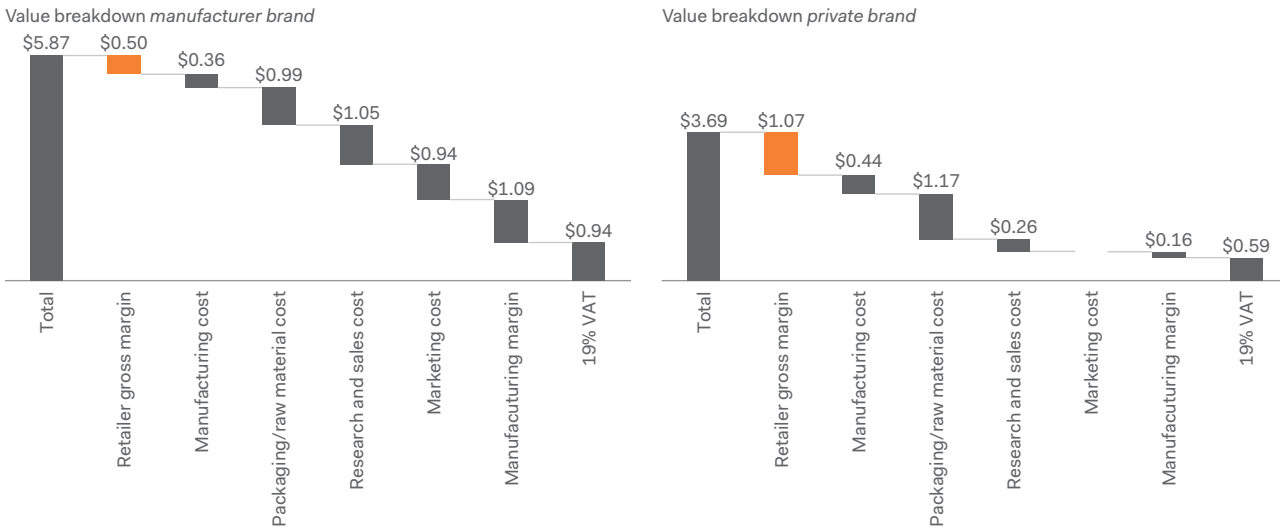
4. ECONOMICS

If executed properly, private brands entail economics that are extremely favorable to retailers. Among the key points retailers should consider: The products hold the potential for attractive margins; there may be a halo effect when margins are lower; and private-brand products hold the potential for benefits of scale.
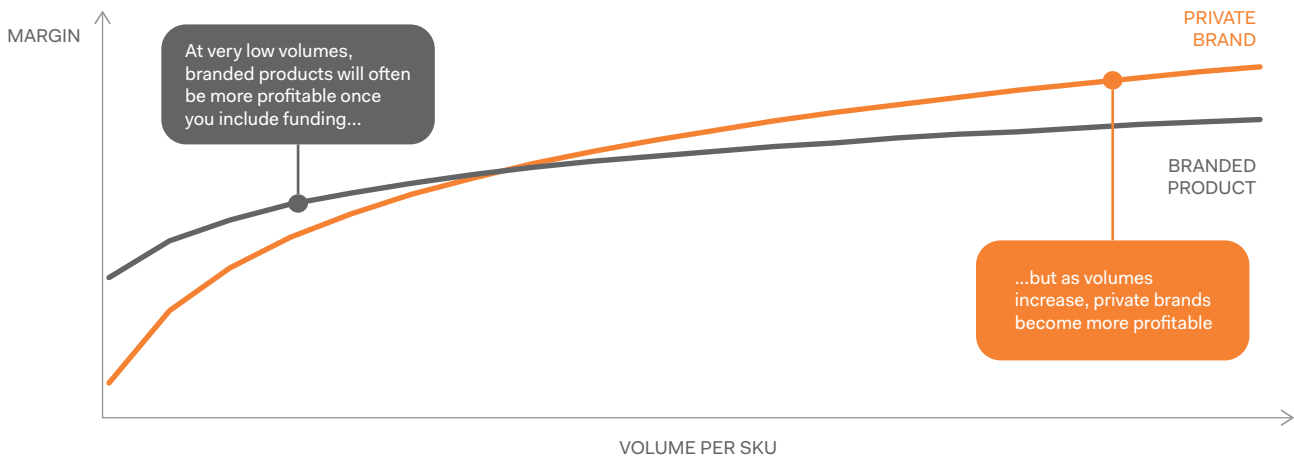
Better margins for premium products

For premium private-brand products, retailers can generate a very attractive margin relative to manufacturer brands. (See Exhibit 9.) Premium private brands do not require the same degree of marketing and sales, which can account for 15 to 20 percent of product costs for manufacturer brands. Retailers can effectively return these cost savings to consumers in the form of lower-cost products. By providing high quality products at a lower cost, retailers build up consumer trust and loyalty, thus strengthening their brand and business more generally.

A case for entry price point products

Entry price point private brands can also benefit retailers, in spite of less appealing margins. On average, private brand products at an entry price point have a gross margin of 20 percent, as compared to the rest of the private brands range, which has an average gross margin of 33 percent.

However, more affordable private brand offerings drive strong halo and basket economies. Oliver Wyman analysis has found that even in a basket with six entry-price private brands products, these products only made up roughly 20 percent of items in that basket. In other words, consumers buying the less expensive private brand products tend to have large baskets that include other more premium products. Plus, retailers with affordable private brand options can benefit from reputations as carriers of high-quality, low-cost items.

Exhibit 9: P&L for premium product (manufacturer brand vs. private brand)

Value breakdown *manufacturer brand*

	$5.87	$0.50	$0.36	$0.99	$1.05	$0.94	$1.09	$0.94
	Total	Retailer gross margin	Manufacturing cost	Packaging/raw material cost	Research and sales cost	Marketing cost	Manufacuturing margin	19% VAT

Value breakdown *private brand*

	$3.69	$1.07	$0.44	$1.17	$0.26		$0.16	$0.59
	Total	Retailer gross margin	Manufacturing cost	Packaging/raw material cost	Research and sales cost	Marketing cost	Manufacuturing margin	19% VAT

Source: IPLC

Exhibit 10: Relationship between volume and profitability: Typical relationships between volume per SKU and margin rate

MARGIN

At very low volumes, branded products will often be more profitable once you include funding...

PRIVATE BRAND

BRANDED PRODUCT

...but as volumes increase, private brands become more profitable

VOLUME PER SKU

Benefits of scale

Beyond the margins of premium private brands and the halo effect and basket implications of entry price point products, private brands become more profitable across all price points when volumes increase. (See Exhibit 10.)

Private brands demonstrate the traditional relationship between volume per SKU and margins: While entry price point private brands may be less attractive than branded products at very low volumes, at a certain point the benefits of scale allow private brands to achieve better margins.

In summary, there are three key economic benefits of private brands. First, premium private brands have significantly higher margins than manufacturer brands. Second, even for entry price point products with less appealing margins, there are significant benefits from halo and basket economics. Lastly, once volumes reach a certain level, private brands across all price points look more attractive than national brands. By harnessing the benefits of private brands, retailers can unlock game-changing economics.

CONCLUSION

Private brands have already grown in popularity in the US and that trend is likely to continue going forward. With Lidl moving into the US market and Amazon acquiring Whole Foods and its well-regarded private brand, pressures are mounting for traditional grocers to revamp and prioritize their private-brand strategies. Given that consumer demand for private brands is high, and that these brands allow retailers to differentiate themselves and build consumer loyalty, the real questions for retailers are on how to build their brand strategy and make the economics work.

In developing their private brands playbook, retailers must first determine their strategic priorities, identify growth opportunities and obstacles in their respective markets, and then assess opportunities at the SKU level in one or two pilot categories. From there, retailers can build out their private-brands portfolio, creating an enticing proposition for their consumers.

James Bacos
Rainer Muench

Fresh or Fail

SIX KEYS TO WORLD-CLASS FRESHNESS

Grocers are under renewed threat as online retailers ramp up their food options. But traditional food stores still have a vital card to play: freshness. Customers like seeing and experiencing food before they buy it, potentially giving physical stores a huge advantage. In our experience, moving from average to best in fresh food can drive a rise in supermarket revenues of up to 10 percent.

That gain is by no means automatic: Many customers are dissatisfied with grocers' current fresh offerings. So, to take advantage of the opportunity, retailers must optimize the journey food makes "from farm to fork."

Exerting control over quality means, first, working with the ultimate suppliers – everything from fruit farmers to fishermen. Crucially, it entails minimizing the time spent at each stage of the supply chain and making sure the products are kept in the right conditions. Temperature control needs to be rigorous and enforced by effective, risk-based quality checks. Retailers can also increase freshness by getting deliveries of the right quantities of food at the right time, so that it spends less time on shelves. In order to do so, retailers need to use the most sophisticated approaches available today, such as demand forecasting based on seasonal fluctuations and customer behavior in individual stores.

Presentation is also a critical element of freshness. Piling fresh fruit and vegetables high may look good but also brings the danger of spoiling if they don't sell quickly enough. So it's better to allocate shelf space according to how well individual items sell by store. Grocers can also generate additional revenue from a dynamic assortment that seeks always to give customers something new to discover.

To implement these ideas, grocers will need to change the way they work internally, as well as with their partners. If suppliers have better access to data from retailers' forecasting systems and advance information about promotions, for example, they can organize their production more effectively to deliver fresh produce and reduce waste. However, these efforts will only work if staff work as an integral part of this process and embody a culture of freshness. Managers need clearly defined best-practice processes combined with intensive hands-on training to make them recognize the advantages of the new ways of working and encourage their staff to follow suit.

COMBATTING THE ONLINE CHALLENGE

Online retailers of everything from fashion to furniture have reached double-digit shares of their markets. Food is an exception, and many consumers still view online offers with a skeptical eye. A recent Oliver Wyman survey conducted in Europe found that a lack of trust in the quality of products kept 44 percent of the respondents from ordering fresh goods online. Higher prices and inconvenient delivery times also put them off. As a result, online retailers still only have a very modest share of the market – a mere 1 percent – making fresh food perhaps the last bastion of a brick-and-mortar retail competitive advantage.

But things can change fast, and online grocers will almost certainly succeed in breaking down such barriers in the medium term. To date, the vast majority of online competitors have focused on dry goods and nonfood items. Now – led by Amazon Fresh – they are launching an assault on fresh food, with Germany as a crucial battlefront. Amazon launched its first online supermarket there in 2015; today, its prices are scarcely different from those of grocers, even on fresh offerings. Thanks to its partnership with parcel distributor DHL, the internet giant already offers convenient time slots in a number of German pilot cities. Amazon Fresh will soon be available in other major cities, and achieve extended coverage in the country over the next few years.

What's happening in Germany will soon come to other European markets. And in the United States, it is already a fact of life; with the recent acquisition of upscale brick-and-mortar Whole Foods chain, Amazon is entering the mainstream. By 2020, online retailers' share of the food market could quadruple or more, to between 4 and 6 percent, putting at least 15 percent of full-range retailers' brick-and-mortar stores at risk. (See Exhibit 1.)

Notwithstanding what seems to be an inexorable trend, traditional grocers can fight back, and even thrive, if they play to their natural strengths in fresh. Despite today's digital environment, consumers still appreciate the advantages of shopping in a real store. Sumptuous cheese and meat counters, freshly picked fruit and vegetables, and the scent of fresh bread are still luring customers to grocers, week after week. And as long as customers are satisfied with the quality of a store's fresh products, they will be difficult to convert to online. Crucially, these happy customers tend to buy not only more fresh but also more ambient and nonfood products – up to one-third more.

A SIX-STEP PROGRAM FOR OPTIMUM FRESHNESS

How can retailers achieve a quantum leap in freshness? To date, many have focused on optimizing individual functions such as buying and logistics. For example, buyers tended to concentrate on selecting suppliers to secure availability while logistics staff focused on minimizing delivery cost to stores. Further, stores attempted to manage the balancing act of ensuring availability while minimizing shrink. The result is local optimization of individual functions, but a sub-optimization of the system as a whole. This approach tends to yield only gradual progress, not enough in a competitive environment challenged by disruption.

Our experience suggests that a dramatic step forward in fresh performance can only be achieved by an approach whose scope stretches from farm to fork; here, the system is optimized rather than just the functional units. We have found that this is the only way in both the short and long term to drive gains.

This journey towards world-class freshness is a significant one, and it consists of six steps. (See Exhibit 2.)

Exhibit 1:

Online retail is primarily a threat to full-range retailers' store networks

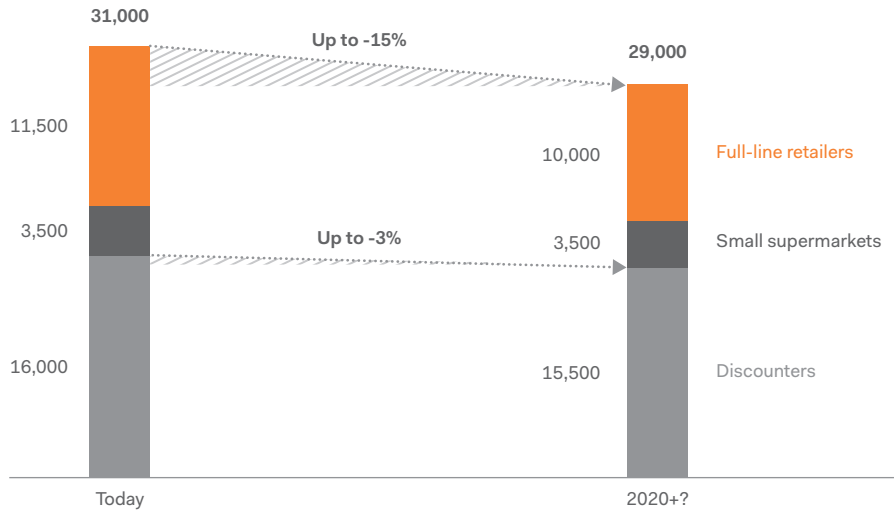Food retail stores in Germany: profit simulation based on a 5 percent online market share

Exhibit 2: "World-class fresh" requires good teamwork

- Rigorous customer- and quality-centric culture
- Best-practice process standards, simple tools and aids, and training sessions
- Fair targets and incentives for each store

- Product specifications
- Quality assurance processes and systems
- Temperature control right up to the shelf
- Consistent standards across the supply chain

- Right space allocation for each department and item
- Service staff, as appropriate
- Optimum packaging/ order units

- Forecast accuracy
- Integrated supply chain with integrated merchandise planning
- Store ordering processes and tools
- Short ordering lead times for the stores

- Local adjustments to each store's assortment
- Leading regionality and locality, as well as a culture of assortment innovation

- Integrated view on the supply chain (cost, speed)
- Exchange of data and best practices
- Partnerships/vertical integration

1. Optimum product quality up to the shelf

Fresher products on the shelf have greater appeal to customers, which boosts sales and reduces waste. Optimum product quality is the result of seamless operation along the entire supply chain. To achieve this, strict supplier management, rigorous standards, and effective, risk-based quality checks in the incoming goods department are needed.

For example, for fresh pioneers it makes no sense to keep products at the right temperature until arrival at the store, only to leave them for hours in the incoming goods area or in the aisles at the wrong temperature. But ensuring fresh doesn't stop at the store. Some best-practice supermarket chains even communicate with customers to inform them on how best to store a product at home so it doesn't spoil prematurely. The factors influencing customers' experience of product quality are many and multifaceted – coming to grips with them can only be done in an interdisciplinary fashion. (See Exhibit 3.)

2. The right quantities at the right time

A smarter ordering process with shorter lead times and integrated goods flow control can dramatically increase the freshness of a retailer's products nationwide. This typically requires an upgrade of hardware and software throughout the value chain.

New technologies, including machine learning and recurrent neural networks, are already providing a leap in forecast quality and, consequently, in-store volume planning. These approaches go beyond data on sales at a particular store, and include information such as weather forecasts that can help predict the demand for individual products. (See Exhibit 4.) Order data is fed into an integrated goods flow-control system, which integrates information from category management, logistics, and sales.

Speeding up the store's order and delivery rhythms and reducing delivery times almost always has a dramatic impact on freshness performance. If the ordering lead time for meat products is reduced from 36 to 24

Exhibit 3: Product quality and freshness needs a multidisciplinary approach

QUALITY CONTROL SYSTEM

Product specs	Supplier management	Product volumes	DC Quality Control	Picking & delivery	Store handling	Shelf maintenance	Product quality as purchased by consumer
Clearly defined product quality standards, easily accessible for entire organization	Supplier selection and management

Monitoring and escalation | Forecasts and order recommendations

Inventory data and store insights

Short store lead time

Right space allocation | High quality control coverage at DC reception

Transparency/ feedback loops on results | Fast turn-around in DC

Educated product handling

Right storage and delivery temperatures | Right storage temperatures

Careful handling of sensitive goods | Quality-focused store operating model

Consequent removal of shrink

Local delisting of permanent shrink drivers | Strong quality communication and information/education to clients

Taste quality control assurance process |

hours, these products are fresher on the shelves and waste decreases typically by more than 20 percent. So it makes good sense to have different delivery schedules for different stores, depending on when customers usually shop. Switching deliveries of fresh products from early morning to early afternoon in some stores drives maximum sales readiness at peak shopping hours and, in our experience, can generate more than 20 percent additional revenue.

3. The perfect assortment for each store

Local factors have a significant impact on demand, and grocers are in a good position to take advantage of them. Shops in certain places will face surges on Mondays and Fridays from weekly family shopping trips. Local demographics have a major impact too: High-income areas will have a greater appetite for pricier offerings, and, if there is a large proportion of ethnic shoppers in an area, demand for corresponding products will be high.

More important in future, however, will be the insights that big data provides into what people actually want to buy and when. This allows individual stores to arrange direct deliveries of seasonal goods from local farms and suppliers that will make it stand out competitively. A dynamic assortment is exciting and increases the likelihood that customers will discover something new, like it, and come back. (See Exhibit 5.)

The ability to adapt a product range to local circumstances represents a fundamental competitive advantage for full-range retailers versus discounters and online retailers. This is a "trump card" that should not be underrated, and retailers are well-advised to play it more often in individual stores, especially in the fresh goods segment. Typically, grocers have focused primarily on such factors as local disposable income, with mixed success – with good reason. The demand for foods and fresh products is much more complex; understanding and adapting to specific local factors can have a massive positive effect.

Exhibit 4: Accurate weather forecasting can be a key factor in determining success in fresh
Impact of weather on forecast accuracy. Example: German Bratwurst

MEAN FORECAST ERROR (%)

Weather-adjusted forecast

Original forecast

CALENDAR WEEK
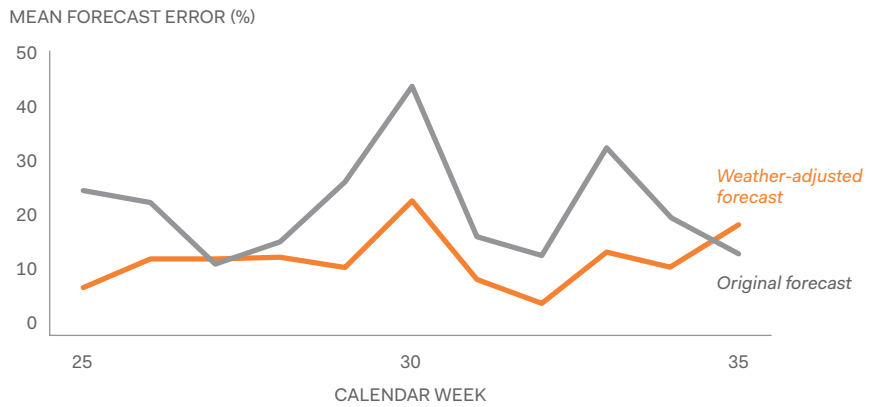
OTHER SUCCESS FACTORS INCLUDE:

- Seasonality and trends
- Holidays and events
- Promotions and price changes
- New and discontinued products
- Cannibalization
- Weather impact

Exhibit 5: Four key elements enable "quantum leap in the approach to ranging in fresh"

Cluster-specific core range

Well-defined core assortment based on store cluster and sales magnitude, differentiated by season

Store-specific range extension

Store-specific supplementary products, aligned with each store's specific customers in the catchment area

Leading regional and local offering

Strong presence of regional, sub-regional, and local products and specialties

Highly dynamic fresh range

Part of the assortment is changed frequently, giving customers the chance to consistently explore and find inspirations

PHYSICAL OUTLETS HAVE REAL ADVANTAGES – AN OLIVER WYMAN SURVEY

Traditional brick-and-mortar stores have natural advantages over online competitors, a recent Oliver Wyman survey reveals – but grocers need to be careful not to squander their head start by neglecting important details.

We recently surveyed over 1,000 European consumers; the results indicated an enduring affinity for the hands-on experience of fresh-food shopping. Not being able to touch and choose an individual product features at the top of the list of reasons not to shop online. Indeed, three out of four respondents indicated this is their most important reason for shopping in brick-and-mortar stores in the future.

In addition, 68 percent of those surveyed placed major importance on being able to take products away with them immediately. (See Exhibit 6.) A lack of confidence in product quality kept 44 percent of respondents from ordering fresh goods online – even more so than higher prices and long delivery times. (See Exhibit 7.)

Despite this good news, there were some worrisome signs for brick-and-mortar grocers. Better quality and in-store availability – considered by many to be the key advantages for physical stores – appeared to be diminishing in importance. Only one in five participants cited superior quality and only one in 10 mentioned in-store advice as a key reason to buy from a brick-and-mortar provider. Most worryingly, more than 80 percent of all customers indicated disappointment with the quality of fresh products at their grocers, even though 58 percent admitted to having bought poor-quality goods. Despite this level of dissatisfaction, only a fifth of unhappy customers actually complained at the store, so retailers are likely to be unaware of the true scale of the problem.

This opens the door for online offers, especially if the quality is convincing. In fact, customers in our survey indicated that they would buy up to a quarter of their fresh-food needs on the internet if they felt they could get the same, or nearly the same, quality as is available in supermarkets.

In summary, consumers confirmed that brick-and-mortar grocers are still first choice for their fresh needs. But the head start versus online is eroding.
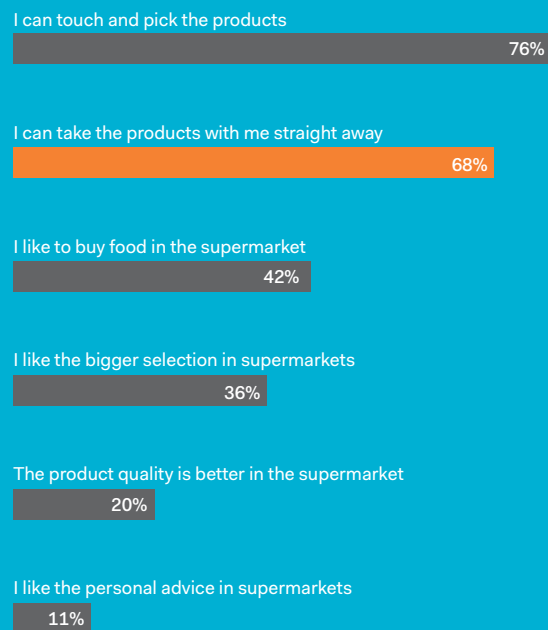
Exhibit 6: Reasons why customers don't order fresh goods online

I don't have enough trust in the product quality
44%

Delivery takes too long
34%

The products are more expensive than in the supermarket
32%

The initial effort is too big (opening an account, etc.)
19%

I don't have the possibility to buy online
13%

The selection isn't big enough
11%

I am afraid of data abuse
7%

I have had some negative experiences in the past
3%
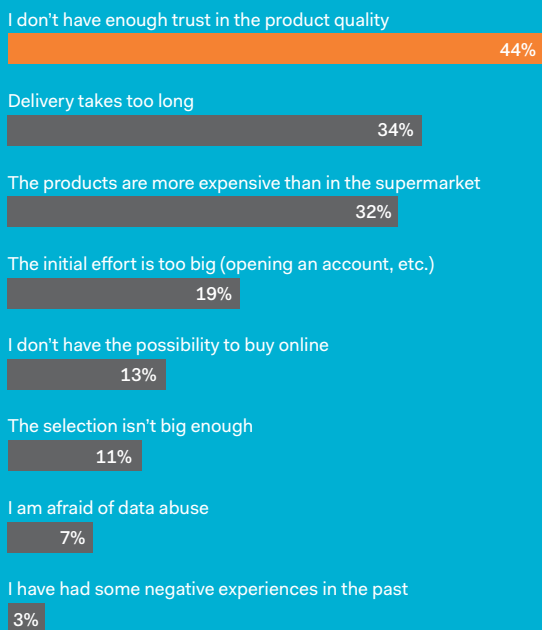
Question: "What are the main reasons preventing you from buying fresh goods online (again) today?"

Source: Oliver Wyman survey of 1,000 consumers in May / June 2017

Exhibit 7: Reasons why customers continue to buy in supermarkets

I can touch and pick the products
76%

I can take the products with me straight away
68%

I like to buy food in the supermarket
42%

I like the bigger selection in supermarkets
36%

The product quality is better in the supermarket
20%

I like the personal advice in supermarkets
11%

Question: "What are the main reasons for you to continue buying fresh goods in physical food retail stores?"

Source: Oliver Wyman survey of 1,000 consumers in May / June 2017

4. Optimum presentation

Many fresh managers still stick to the rule of thumb "pile them high and watch them fly," especially for the presentation of fruit and vegetables. But there's always the danger of a rapid fall in quality at the bottom of the pyramid. Optimum, modern-style presentation starts out by adapting the size of each department and product display to reflect its revenue contribution in a particular store. Appropriate order units can then be introduced, avoiding excessively large batch sizes, which can be a significant driver of wastage. Skillful presentation, on the other hand, can nonetheless give the impression of abundance even when a store has minimal quantities of a product.

5. Supplier collaboration, not confrontation

Get together twice a year, fight over commercial terms, then go back to your workplace and continue your own work. Rituals like these between buyers and suppliers are increasingly outdated in a digital age. Our experience is that retailers alone could save billions by increasing the quality of their fresh products through better collaboration with their suppliers.

Grocers need not only to be aware of the extreme fluctuations in demand – and, to some extent, supply – that suppliers face, but also to help them deal with these fluctuations. In the absence of good information on such things as changes in assortments or spikes in demand driven by promotions, suppliers are forced either to maintain high inventory in their warehouses or insist on long lead times for deliveries – understandable, but in both cases freshness and/or availability suffers.

By collaborating more closely, retailers can enable suppliers to forecast these fluctuations and organize their production around them. This could be done by letting suppliers have access to data from retailers' forecasting systems or giving them advance notice of promotions. Retailers can also substantially accelerate their processes and, ultimately, improve their level of freshness if they review current quality requirements and controls, and coordinate them with their suppliers.

6. Excellent implementation in the stores

All of a store's efforts to perfect its fresh offering will go up in smoke if employees don't practice a culture of excellence every single day. For the best performers in fresh, this has meant new ordering processes, planograms, and key performance indicators (KPIs), which fundamentally transformed the work of store managers and fresh managers. This has been achieved through comprehensive best-practice programs and intensive hands-on training, ensuring that managers and associates recognize the advantages of the new ways of working and can implement them.

For these freshness leaders, new KPI systems constantly provide managers and their teams with information about the store's fresh offerings, and play an integral role in outcome-based incentive systems. A key lesson has been not to define companywide average targets, because the differences between stores are too great. A better approach is to differentiate targets by store, taking into consideration such factors as the size of the store and its catchment area; fair targets motivate more than impossible-to-reach ones. Such a KPI-based culture can also help to improve performance by creating transparency about which stores are performing particularly well, and transferring their best practices to other stores in the network. A culture centered on quality and customers will benefit everyone with a stake in the supermarket: customers, staff, and the retailers themselves. (See Case Study, page 43.)

CONCLUSION: BETTER FRESHNESS INCREASES REVENUE

Retailers who can persuade customers that their fresh products are of the highest quality will not only find a highly effective way to ward off growing online competition, but also have a source of often-dramatic incremental revenue and increased customer satisfaction.

The emerging winners in fresh have all recognized the scope of the farm-to-fork challenge, and addressed it an integrated and multifunctional fashion. They have been rewarded with extraordinary increases in customer satisfaction, like-for-like growth, and margin enhancement. It is a challenging path, but one well worth treading.

4. A SMARTER FUTURE
RETHINKING DISTRIBUTION

Shri Santhanam
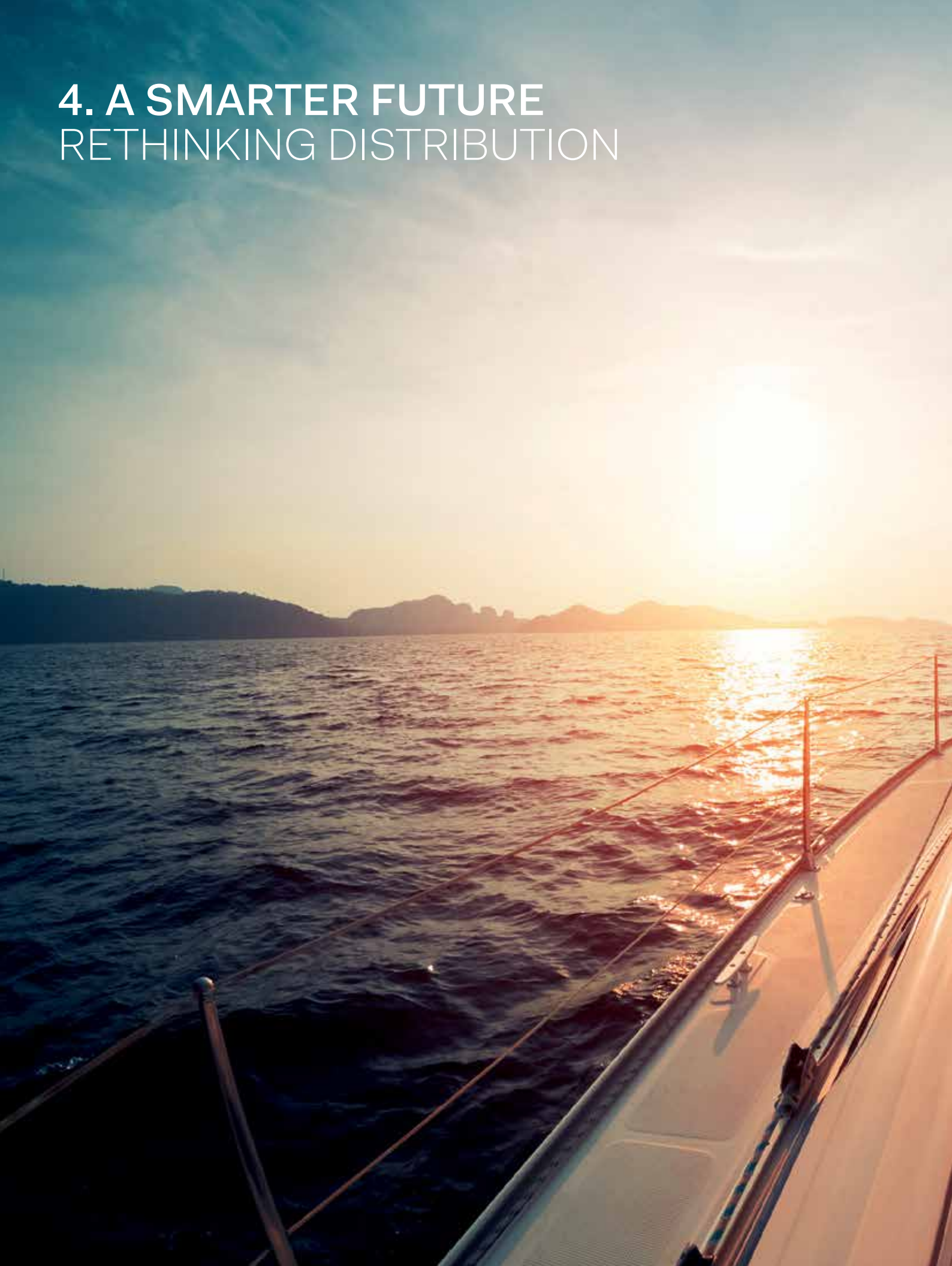
The Intelligent Distributor

So much is changing so fast in our business. We are trying to take an integrated approach across all of our value steps and are making headway, but too slowly. It's hard to set priorities when operations, customer knowledge, and sales effectiveness are all under pressure. How do we put intelligence into all of our activities?

The wholesale distribution business is entering a new era

Five years from now – perhaps as soon as three years, but certainly within eight – leading distributors will be conducting business very differently from how they do today. Already a number of firms are advancing into the future, and while the effort admits of no delay, it is not too late for other firms to catch up.

Emergent business models will offer superior experiences for customers and suppliers and will be more profitable. These new concerns will be data-rich digital operations, producing faster and better decisions about offers, pricing, and commercial behavior.

The key drivers will be increased exploitation of distributors' rich data stores, improved data interfacing with customers and suppliers, often through mobile devices, and an increasing abundance of data from sensors (by way of the Internet of Things, or IoT).

Returns will be to smarts, not only scale. The biggest challenges will come from incumbent distributors moving quickly to build the intelligence, systems, and operating models necessary for the future market. These companies will look much more like marketplaces than the traditional upstream-driven distributor, and technology will be their center of gravity. They will deploy the assets and activities of the traditional distributor – warehouses, trucks, inventory – only when necessary to sustain a competitive advantage.

A NEW ERA: THE DISTRIBUTOR AS A MARKETPLACE

This paper traces the evolution of the distribution business and highlights the emergence of wholly new models of service provision and performance. First we will present a short history before looking into the market's current developments.

The 1980s were the era of the logistics provider. A reliable supply chain with good upstream and local relationships was the key to success. During this period, every region and city had its own local distributors in virtually every product area.

An era of consolidation followed (from around 1990 through 2010), creating national distributors in most product areas. The key to success became running large, complex networks reasonably well. Local and regional players held up the price umbrella. Advantages of scale meant that there was room for the biggest companies to be lax about how precisely they ran their business and how data-driven their decisions were. Smaller players survived by providing good service and building strong relationships with customers.

Value-added services have been the focus of the current decade. Such services have protected revenue and generated customer loyalty, but margins have become compressed as a result of increased competition and price sensitivity among customers.

Throughout these phases many distributors have been inside-out businesses, moving product from manufacturer to end user, from upstream warehouses to the end users' site, finding customers who want to buy what the manufacturer makes.

The Intelligent Distributor of the future, however, is an organization that reacts to the forces shaping the economic world. It uses digital to innovate operations and commercial behavior, developing stronger relationships upstream with suppliers and downstream with customers.

40% Projected growth in global data generated per year

37% Share of time online spent on a mobile device

2-4 wks Average agile development cycle (compared to 6-12 months for traditional "waterfall" programming)

450 MM Internet-enabled devices in US homes

18% E-commercer growth rate in North America in 2013

36,000 hrs Video uploaded yo YouTube every hour
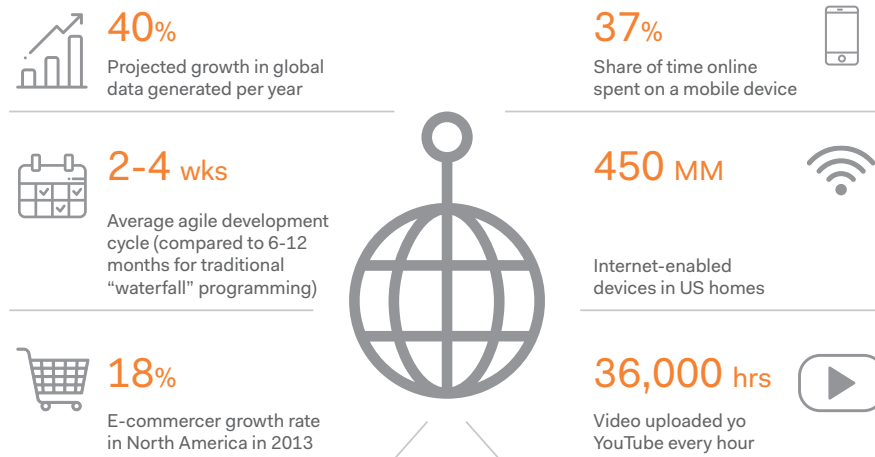
Exhibit 2: The once and future distributor

ONCE

| Suppliers | > | Distributor as a logistics provider | > | Customers |

SOON?

| Suppliers | Distributor as a logistics provider | Customers |
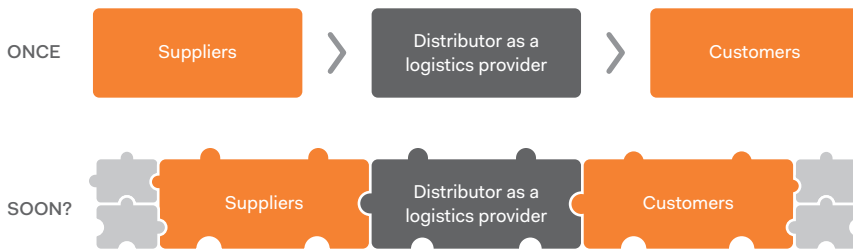
The world is changing faster than ever. Mobiles have replaced PCs and laptops as the device of choice. Data is accumulating at a rate of 40 percent per year, and there are 450 million internet-enabled devices in US homes (the Internet of Things, IoT). The agile application development cycle is two-to-four weeks, versus six-to-12 months for traditional software applications. (See Exhibit 1.)

Now, the Intelligent Distributor is reacting to all the forces shaping the digital world, using digital to innovate operations and commercial behavior and building more intense relationships upstream with suppliers and downstream with customers.

All of this transforms how distributors work because it changes how customers behave. The digital titans – Google, Facebook, Apple, and Amazon – are worth $2.4 trillion in market capitalization. Any given firm's customers will set their expectations based on their interactions with these companies, all of them driven by data, deep analytics, and fast decision making.

All aspects of business will change for the distributor of the future. Data sources in the supply chain, analytical software, and mobile devices will abound. That data will accelerate customer interactions, service quality, offer design, commerciality, and operations. Smarter, nimbler players will initially make greater progress than slower, larger ones, and the playing field will be level, for a while.

Distributors will redefine customer and supplier relationships. (See Exhibit 2.) A traditional reluctance to share customer data upstream with suppliers will give way to an economics of information, linking consumer preferences to manufacturers' product designs, operations, and production forecasting. A back-of-the-envelope analysis of the building products sector suggests that this kind of value-chain transparency yields 10 percent to 15 percent cost savings. The benefits here are too big to resist.

THE RACE IS ON FOR DIGITAL INTELLIGENCE, AND LARGE, TRADITIONAL FIRMS MAY BE VULNERABLE

What it will take to win

The Intelligent Distributor recognizes changing market forces, adapts, and excels, moving proactively and aggressively to build new capabilities. The chart below presents a hierarchy of key capabilities and the path along which distributors will likely need to evolve. (See Exhibit 3.) Developing to the right of the graph is the present challenge; remaining on the left will be risky.

So what does all this mean in practice?

To illustrate this imperative we have drawn on real examples from today's distribution industry, as well as on some from other B2B industries. They demonstrate the need for change and manifest what the future could look like.

Customer intensity

While most distributors are increasingly focused on customer service, many still operate without a deep enough understanding of their customers. What do customers care about? How do they behave and perform? What is their true profitability to the business? Such information is often not gathered or employed. It is guessed at and assumed, but not known.

As a result, two questions critical to running the business remain unanswered for many distributors: who their most valuable customers are and how to win with them. In Oliver Wyman's experience, the answers to these questions are often surprising, different from the guesses and assumptions that frequently drive behavior.

The waste industry is an excellent example of how powerful data can completely change customer selection and priority. A favorite story concerns the plethora of small customers essential to the success of the business. Our example here compares restaurants to small office buildings. (See Exhibit 4.)

Exhibit 3: How good do you need to be at what?

	SURVIVE	THRIVE	CHANGE THE GAME
OPERATIONS	Minimize errors and cost	Trade-off satisfaction with profitability	Open supply chains create marketoplace
COMMERCIAL DECISIONS	Price taker	Fast follower	Best market pulse yields market-leading decisions
OFFERINGS	Basic, comeptitive, consistent	Segmented value-added services	Organization tuned to drive tailored solutions – downstream and upstream
INTERACTIONS	Salesforce's experience Websiter available	Excellent website Superior salesforce tools	Frictionless Omni-channel Trusted transparency
CUSTOMER INTENSITY	Reasonable customer profitability	Granular data Systematic Life Time Value (LTA)	All data brought to bear for real-time decisions

Exhibit 4: Comparing customer lifetime values

	SENSITIVITY	CHURN RATE	EBIT/MO.	LIFETIME VALUE
RESTAURANT Likes discounts Switch easily	2.4x	12%	$23	$1,600
OFFICE BUILDING Often bid out Slow to sign up	0.8x	8%	$121	$14,000

9x more valuable

Sales reps are often able to acquire restaurant customers because restaurants are always looking for a lower price and churn easily. Owners of office buildings, on the other hand, are usually slow to sign up, often bid out, and thus require patience and tenacity from a waste company's sales force.

Upon analysis, the data encompassing customer behavior, sales efforts, churn rate, and margins implied that office buildings are nine times more valuable than restaurants over the lifetime of a relationship. Restaurants dump heavy waste, are costly to serve, and are also much more price sensitive. Such customers are thus far from ideal, however easy they are to sign up.

In the era of the Intelligent Distributor, this kind of data, insight, and impact is increasingly accessible and therefore increasingly necessary.

Interactions

In many B2B distribution businesses today, a salesperson is the customer's primary touch point. Channels, customer service, e-commerce, and online self-help often have significant "friction." The easiest way to interact with the distributor is thus simply to call the sales rep. As a result, many businesses are heavily reliant on reps' individual relationships with customers. This is changing.

Customers are starting to expect their sales rep to be deeply knowledgeable about their business. They seek market and industry insight, future outlook, demand generation help, and guidance on how to best run the business. Customers want their salesperson to act as a performance consultant. To fulfill that function, the rep will need support to be successful.

In the coming era, distributors will deploy new tools and capabilities to help customers succeed – tools that capture, analyze, and deploy information from and during all interactions in powerful ways. B2B customers are now expecting their interactions with distributors to be similar to the actions they have in their private lives: one-click ordering, click and collect, easily accessible product information, and mobile status updates are just the short list. Game-changing firms will craft seamless omnichannel interactions, which extend traditional relationships and build cost efficiency as customers are naturally incentivized and seamlessly directed to lower cost, higher utility channels. We expect Apple's omnichannel behavior to become the standard for B2B businesses. (See Exhibit 5.)

Offerings

Winners in this new era will focus relentlessly on answering two questions: What hassles most trouble my most valuable customers? How can I resolve them?

Bloomberg offers a terrific example of a company designing a new product to solve its customers' primary hassle and building a business model around it.

Bloomberg recognized the huge frustration with how traders in financial markets accessed the trading information they needed minute-to-minute. A trader had to connect to up to 200 exchanges, communicate with thousands of brokers,

Exhibit 5: Your customer's interaction and contact options: Apple's approach
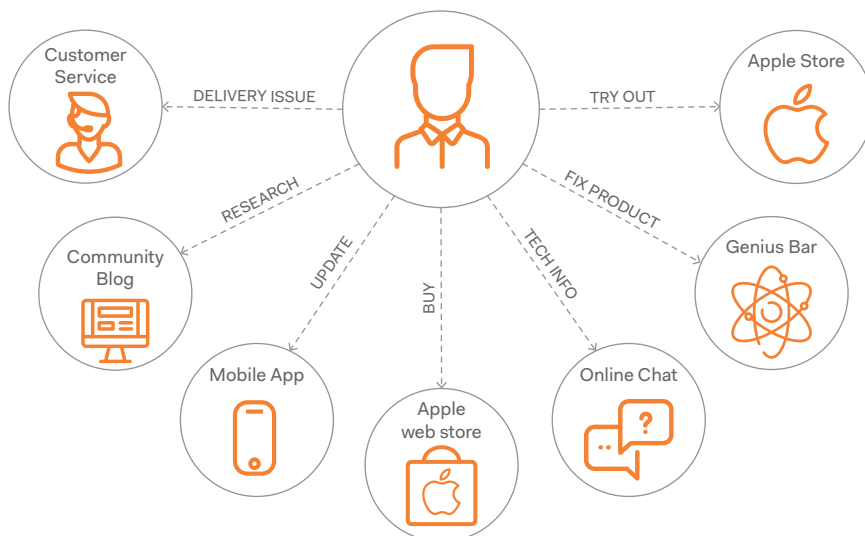
subscribe to countless news and research sources, and hook up voice communication all to keep abreast of developments in the market.

Moreover, these traders had to deal with multiple logins and subscriptions to different sources. Pricing was a la carte and confusing, so it was difficult to tell what you were paying for and how much you were getting from it. A typical trader also needed multiple screens and computers to display the data, which could often be conflicting and incomplete. Reliable data comparisons were thus very difficult to make, there were often download problems, and traders sometimes built ad hoc Excel models to compare and reconcile information. It was a mess. (See Exhibit 6.)

Exhibit 6: Financial trading customer hassle

BEFORE

MULTIPLE SCREENS AND INPUTS

AFTER

CONSOLIDATED AND EASY
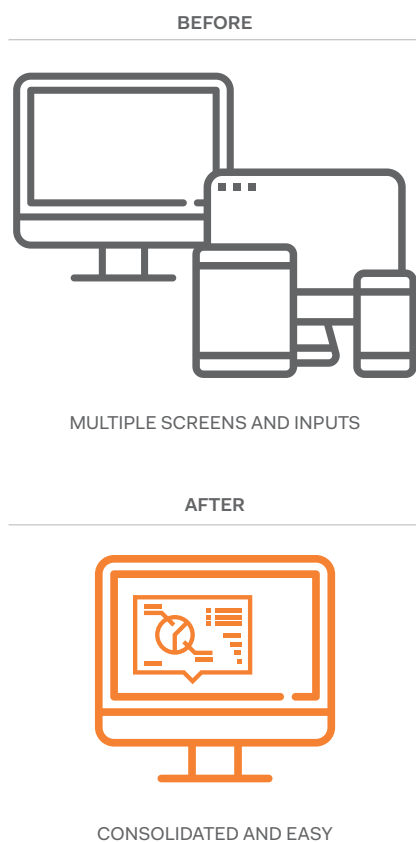
Bloomberg created a single, comprehensive platform presenting a consolidated view of current and historical pricing for 5 million financial instruments on 200 exchanges, along with 250,000 other subscribers. Its sleek, dual-screen terminal displays reconciled information and easily allowed for downloading and exporting data. Nowadays, such ease-of-use features are commonplace in the wake of the digital revolution, and the Bloomberg terminal itself has changed significantly, but Bloomberg's product was quite revolutionary for its time. The company's bold, disciplined, and relentless focus on solving customers' hassles simplified life for its clients and produced its success. (See Exhibit 7.)

Commercial decisions

Running a billion dollar distribution business means processing thousands of commercial decisions every day: how to price a given customer, how to allocate a salesperson's time, how to package services. These decisions are often made with limited insight or support, based on tradition, instinct, or plain myth.

In the coming era, successful firms will support making smarter, faster, and more collaborative decisions based on data insights, analytics, and virtually real-time field tools. They will develop and deploy apps and processes that will be rapidly adopted in the field and forge deep collaborations between users and technology. We call this principle "for the field, by the field." There are examples of distributors already doing this, putting dynamic tools in the hands of their salesforce.

One national chemicals distributor has created a "Monday morning" dashboard to highlight the week's highest value initiatives and suggest how personnel allocate their time. (See Exhibit 8.) The tool uses deep analytics to identify and prioritize opportunities, but encourages—even requires—collaboration. The tool prompts salespeople to accept or reject its insights and action recommendations, and improves its performance as it learns each user's priorities and preferences. The more the tool is used, the smarter it gets and the more it aligns with each user.

Operations

The Internet of Things (IoT) is having two important effects on distribution operations.

First, sensor and tracking technologies are becoming cheaper and easier to use. As a result, datafication is easier and companies are able to capture data that simply wasn't available previously, such as the live location of inventory and vehicles. Second, platforms for analyzing data and making it useful are becoming more available, more affordable, and easier to use.

Deploying both together, the Intelligent Distributor will be thinking about its operations in a fundamentally different way. Its approach will be "customer-in." The game-changing distributor will be in a better position to answer the crucial question – what is the lowest cost way to flex operations?

The operational possibilities are quite attractive: 24/7 availability, low fulfillment time, real-time inventory visibility – all without stressing or challenging the supply chain. Distributors will start to track, identify, and tackle customer hassles before they occur, not having to wait for a customer's complaints to resolve the issue.

One leading chemical manufacturer has begun operating along these lines, employing a proactive IoT strategy to track transport issues with specialty chemicals. Many high performance or hazardous chemicals require monitoring during movement. Historically this was done manually at multiple points in the supply chain and required significant time and effort. Non-compliance and quality issues were often identified by the customer only after delivery. The firm's new IoT strategy uses RFID, GPS, and various sensors to continuously monitor temperature, humidity, breach of container, and can automatically issue alerts. Operators can now proactively identify and address customer issues before they arise.

Much innovation in B2C will transfer across to B2B at an accelerating pace. Warehousing, robotics, and futuristic concepts like drones are starting to seem more plausible. Distributors who thrive will be carefully watching B2C, benefiting from experimentation there, and will be quick adopters of ideas that work.

Leading with technology

Lastly, the Intelligent Distributor will have to be a technology-led business. Significant IT capability upgrades will be necessary if a firm is to lead innovation in the business, as opposed to remaining simply a "service provider." The rate of IT innovation compared to a firm's competitors will be one of the biggest factors in determining whether its performance circle is virtuous, or vicious. In particular, new capabilities required of distributors' technology stacks will be:

- The ability to store and process much larger quantities of data. This includes data from IoT devices, such as telematics from trucks, sensors in warehouses, and web logs from internet and mobile sites.

- The capability to interface upstream with suppliers' data systems and downstream to customers, in a fast and cost-effective way. This encompasses using "API" interfaces into and out of the distributor's core systems.

- Processes that allow agile development of new technology-led propositions and internal improvements vs. long "waterfall" IT methodologies.

- The ability to innovate with the front-end interfaces with the customer, in particular on mobile devices.

Exhibit 7: The financial trading "customer hassle": Bloomberg's solution

BEFORE

| Multiple connections/ subscriptions | Multiple logins | A la carte pricing | Many screens and computers | Incomplete information | Data comparison/ download problems |

AFTER

| Single comprehensive platform | Sleek dual-screen terminal | Easy to manipulate, access, and downlaod |
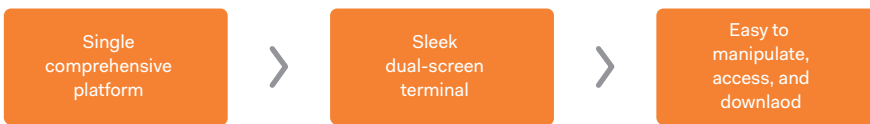
Exhibit 8: Some players are already doing this...

Driven by deep data analytics and insight

Each line is a specific growth insight helps the sales rep prioritize the week

Tool learns as users give feedback on each insight

SO WHAT DO YOU DO?

Understand that customers today and tomorrow drive everything and that they need to be understood intimately.

Firms cannot kid themselves about their strengths and weaknesses, the former often overestimated, the latter underestimated. They should be ruthless and exacting in their self-assessments.

Firms should make substantive plans to get from where they are to where they need to be, putting their best people in charge.

They must determine how best to keep doing what they're now doing so as to pay for an education in what they will have to learn to do. These ends will need to be pursued simultaneously, so they should set a course and commit to it.

This is not a paced marathon, but rather a series of short races that firms can't afford to lose. They should get used to sprints and mid-course corrections, and hold their nerve. Specifically, answer these questions quickly and comprehensively:

How should businesses like yours go to market in the future?

- Which customers can you absolutely not afford to lose, and which competitors' customers should you seek to acquire?

- What customer hassles will you solve better than the competition? How will your product and service offer differ radically from today?

- What sales model should you deploy to what segments? How "far up" the customer chain can a fully digital model go?

Key success factor: The homework and the business definition you need looking two/five/10 years out into the future, and intensity to make customers love it.

How do your business capabilities compare to what you need to win?

- Are you allocating your A-team or B-team to transformation initiatives? How aggressively are you looking to fill talent and capability gaps, be it through partnering, M&A, or new recruitment strategies?

- Is your tech stack able to balance agility, resilience, and cost appropriately? Are the parts of your business most likely to change agile enough to do so, including such areas as sales, pricing, and connected assets?

- What can you learn by adopting best practices from competitors or by sharing practices with non-competing players in adjacent sectors and geographies?

Key success factor: Candor on your starting point; humility in closing gaps by any means available.

How confident are you that you can hold the course?

- High-speed business reinvention is neither cheap nor easy. Is your board on board? Have you allocated adequate funding for the effort?

- Is the pace—and sequencing—right? Can you comprehend continual progress through a series of short sprints? Have you decided how to run your transformation program: integrated with the core business or as a separate, clean-slate approach?

- How sold is your business on the need for change? Will innovation be seen internally as a threat and "killed by the line?"

Key success factor: A robust plan deliverable in many stages, each yielding tangible improvements to the business. No "cathedrals of IT."

Chris Baker
Shri Santhanam

CEO Perspectives on the Intelligent Distributor

EVOLUTION OF THE INTELLIGENT DISTRIBUTOR

The purpose of this report is to bring you the perspectives that emerged from an extensive survey of CEOs and executives at wholesale and distribution companies. Based on their responses, we offer some observations on today's market and suggest actions that organizations can take. The CEOs and executives who participated in this study are acutely aware and keen to stay abreast of the changing dynamics in the industry and the impact digital is having on their businesses. They demonstrate a clear sense of urgency to get smarter and more agile, and feel the need to expand their prospects and build the business of the future.

What keeps me up at night? Are we fast enough, are we agile and nimble enough, are we staying ahead of what's happening with digital and with our industry?

15+	CEO interviews
70+	Executive survey responses
15+	Industry articles
10+	Experts and professional

The era of the intelligent distributor is characterized by adaptation to digital forces and other market dynamics. Leading companies are using digital proactively to innovate, as opposed to struggling reactively to keep up. They are changing from an *inside-out* mentality to an *outside-in* approach, with improved, intense relationships with suppliers and customers.

This report is a synthesis of the rich and insightful perspectives of these executives, along with input from experts, professionals, and extensive research. In it, we offer **four observations** on how distribution is changing and **five critical actions** for companies to consider in the year ahead.

FOUR OBSERVATIONS ON WHOLESALE AND DISTRIBUTION

Based on the input from the executives who participated in the study and our market research, the following four trends stand out:

- Winners are breaking away, but still driven by focus on the basics
- Acquisitions are coming back, but where "smart" wins out over "scale"
- Technology investments are increasing, but are smarter and nimbler
- Investment in people and talent is a clear priority

The following sections describe how CEOs and executives are thinking about each of these trends and provide the context necessary to support the critical actions that companies should consider.

Winners are breaking away, but still driven by focus on the basics

Distribution as a sector has been performing well. (See Exhibit 1.) Average shareholder returns have been higher than most relevant industry and market benchmarks for both two- and four-year timelines.

Success in the industry has been driven by performing well on the fundamentals. Revenue growth has been driving the bulk of shareholder return (7.6 percent annualized return), but margin expansion (1.4 percent), valuation multiple increase (2.2 percent), and capital efficiency (2.2 percent) have also contributed to industry growth.

Acquisitions are coming back, but where "smart" wins out over "scale"

Acquisitions underpin the revenue growth among large distributors. For most wholesalers and distributors, growth and acquisitions have been one and the same – 70 percent of distributor revenue growth in the past 10 years has come from acquisitions. This M&A activity has only continued to surge, with 56 percent of it occurring in the past three years. (See Exhibit 2.)

While consolidating local share remains the primary M&A driver, it has been harder to find and execute large acquisitions. Geographic expansion also remains an

important driver of acquisition activity, and several companies have made major strides in this strategy. But doing acquisitions so as to expand the offering is a third important rationale that is growing in importance. With this type of "smart" M&A activity, businesses are focused on adding capabilities as opposed to expanding their footprint.

Exhibit 1: Annualized shareholder return
$BN Distributors

Average (Stock price adjusted)

S&P 500 Industrials (Sector)
S&P 500 Index

2010   2012   2014   2016
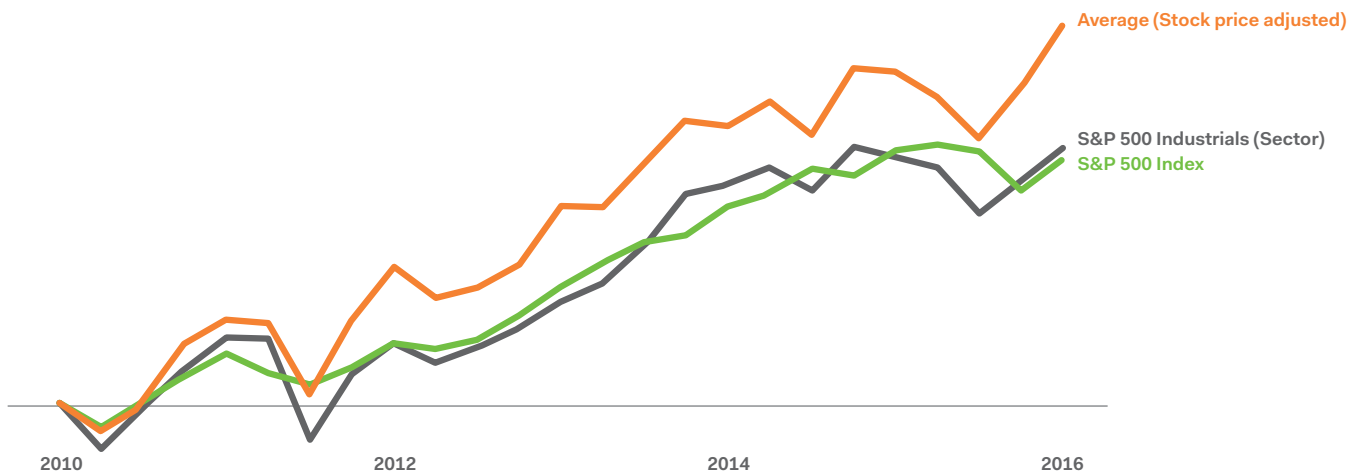
Note: Dividend adjusted shareholder return for basket of distributors > $2 BN revenue as of Q1 2010

Exhibit 2: Rationale for wholesale and distribution acquisitions in the past five years
Count of $100 BN+ acquisitions
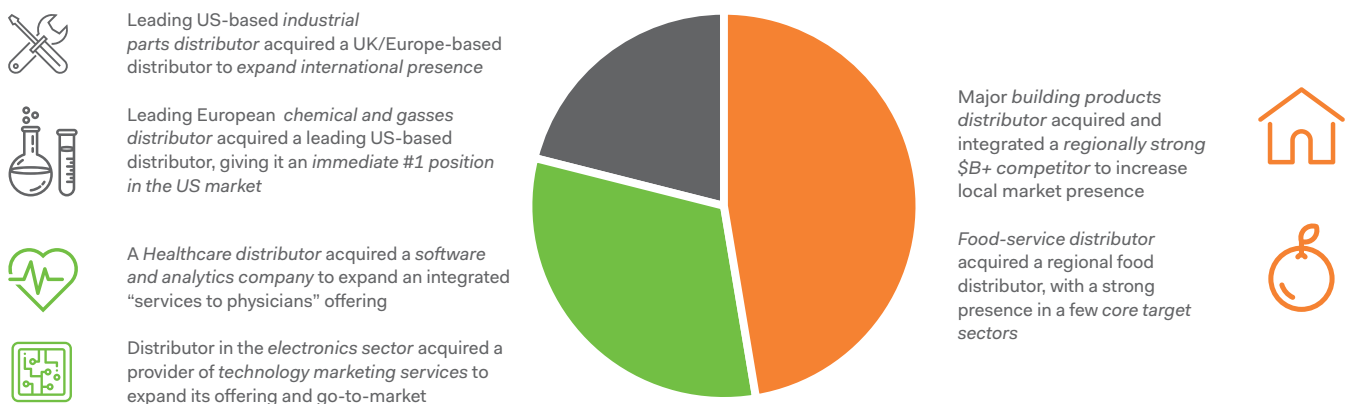
Leading US-based *industrial parts distributor* acquired a UK/Europe-based distributor to *expand international presence*

Leading European *chemical and gasses distributor* acquired a leading US-based distributor, giving it an *immediate #1 position in the US market*

A *Healthcare distributor* acquired a *software and analytics company* to expand an integrated "services to physicians" offering

Distributor in the *electronics sector* acquired a provider of *technology marketing services* to expand its offering and go-to-market

Major *building products distributor* acquired and integrated a *regionally strong $B+ competitor* to increase local market presence

Food-service distributor acquired a regional food distributor, with a strong presence in a few *core target sectors*

Source: Oliver Wyman analysis

Technology investment: more, smarter, and nimbler

A recent survey of technology spend across sectors found that distribution is seeing one of the largest growth rates in that area. (See Exhibit 3.) Much of this investment has come in the form of "smart" acquisitions as described above.

CEOs in wholesale and distribution are aware that technology is advancing more and more rapidly, and they need to spend to keep up. Many companies have underinvested in their IT and ERP systems, and being cost-effective in some areas is not enough to support the investment needed in technology to catch up.

It's no longer enough for performance to be merely adequate. Investing in technology is not only about staying par for the course; rather, CEOs recognize the need to become leaders in their industry, evolve the offering to their customers, and realize the potential to optimize operations.

Investment in people and talent is finally a clear priority

Acquisitions and investment in technology have been key trends in distribution and wholesale, but underpinning everything is the need for talent. CEOs state that it is getting more difficult to find the right talent and that there is more competition for those employees. People are the foundation of any company, and the work environment and culture must be attractive to find and retain talent.

Wholesale and distribution are feeling an immediate talent shortage in some areas. In 2016, there was a 100 percent annual turnover rate, marking an all-time high, with an estimated shortfall of 48,000 drivers, according to the American Trucking Association. With the average age of a truck driver currently 49-years-old, it is projected that there will be a shortfall of 175,000 drivers by 2024.

Emerging technologies may solve some of these issues, but they will also create the need for new skills at wholesale and distribution companies. Self-driving trucks may address the truck driver shortage, enabling driving times of 24-hours per day as opposed to 11 hours for human drivers. This technology will go far beyond simply solving this worker shortage: In addition to potential savings on fuel costs of 10 percent due to platooning (Oliver Wyman, *Self-Driving Freight in the Fast Lane,* 2015), the freight industry will save up to $168 billion thanks to self-driving trucks (Morgan Stanley, *Self-Driving the New Auto Industry Paradigm*, 2013).

Recognizing the potential of this emerging technology, Uber spent $10 million per engineer in its *acquihire* of self-driving truck company Otto. Additionally, organizations are realizing that they can invest time in drivers now, but eventually the focus will be on delivery people in driverless trucks. As wholesale and distribution companies exhibit a similar focus on new people with the right skill sets, the makeup of their organizations will ultimately shift from pickers, drivers, buyers, and salespeople, to programmers, technicians, analytics teams, and e-commerce marketers.

Exhibit 3: Technology Investments (CAGR: 2008-2016)

2.7%	2.6%	2.6%	2.3%	2.2%	2.1%	2.1%	2.0%	1.6%	1.5%	1.2%	1.1%
Banking & Securities	Healthcare Providers	Wholesale Distribution	Utilities	Retail	Communications Media & Services	Insurance	Other Transportation	Manufacturing & Natural Resources	Education	Defense	Government
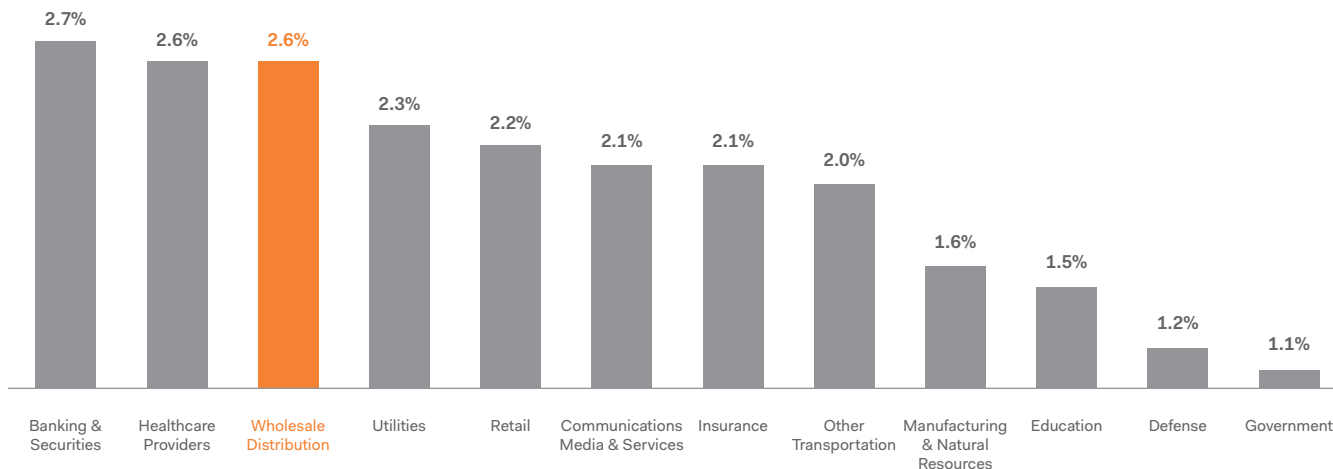
Source: *Gartner Market Statistics*, 2008-2016

FIVE CRITICAL ACTIONS FOR WHOLESALERS AND DISTRIBUTORS

It is important to consider what tangible action can be taken in light of these observations. Taking into account the need to foster an outside-in approach – focusing on customer experience and value creation first – we would like to offer five critical actions for the CEO agenda:

- Deepen customer intimacy

- Provide solutions, not just distribution

- Continuously improve pricing and sourcing

- Be bold in rethinking your people strategy

- Take a two-speed approach to technology

The following sections describe each of these actions and provide tangible, actionable insights that emerged from our conversations with CEOs and executives.

Deepen customer intimacy

Many of the executives identified an urgent need to aggressively improve customer intimacy. This action is set against the backdrop of an important development: the consumerization of B2B.

Increasingly, many businesses are starting to view business customers as consumers and are tailoring their offers to cater to the unique interactions their customers demand.

(See Exhibit 4.) Parallels can be drawn to the retail and consumer industries, where data-driven specialization and increased customer intimacy has been a major trend over the past decade. There's an acute need to go from just traditional sales calls and delivery reps to a multitude of interactions. E-commerce, mobile apps, specialized product experts and technical support, and interactive vending machines are all methods that can be used to drive more intimacy.

The advice from this study on customer intimacy is to create a virtuous cycle focusing on three things:

- Create **many more touch points** with customers

- Use new touch points and associated data to **better understand** customers

- Use this understanding to better **serve customers** and develop **new offerings**

Provide solutions, not just distribution

This theme gets to the fundamentals of understanding what business you are in. It is interesting to see the transformation many in wholesale and distribution appear to be going through: the advice here is that firms should not simply be in the distribution businesses, but should actually be in the solutions business.

Exhibit 4: Consumerizing B2B with an integrated channel strategy

E-COMMERCE
Re-order and in-category orders

VENDING MACHINE
On-site fulfillment

TECHNICAL SUPPORT
Product expertise and design

B2B CUSTOMER

MOBILE APP
In-field order tracking

SALES REPRESENTATIVE
New sales and high-profile contracts

DELIVERY REPRESENTATIVE
Order fulfillment and light service

CUSTOMER SUPPORT
Service issue resolution, billing
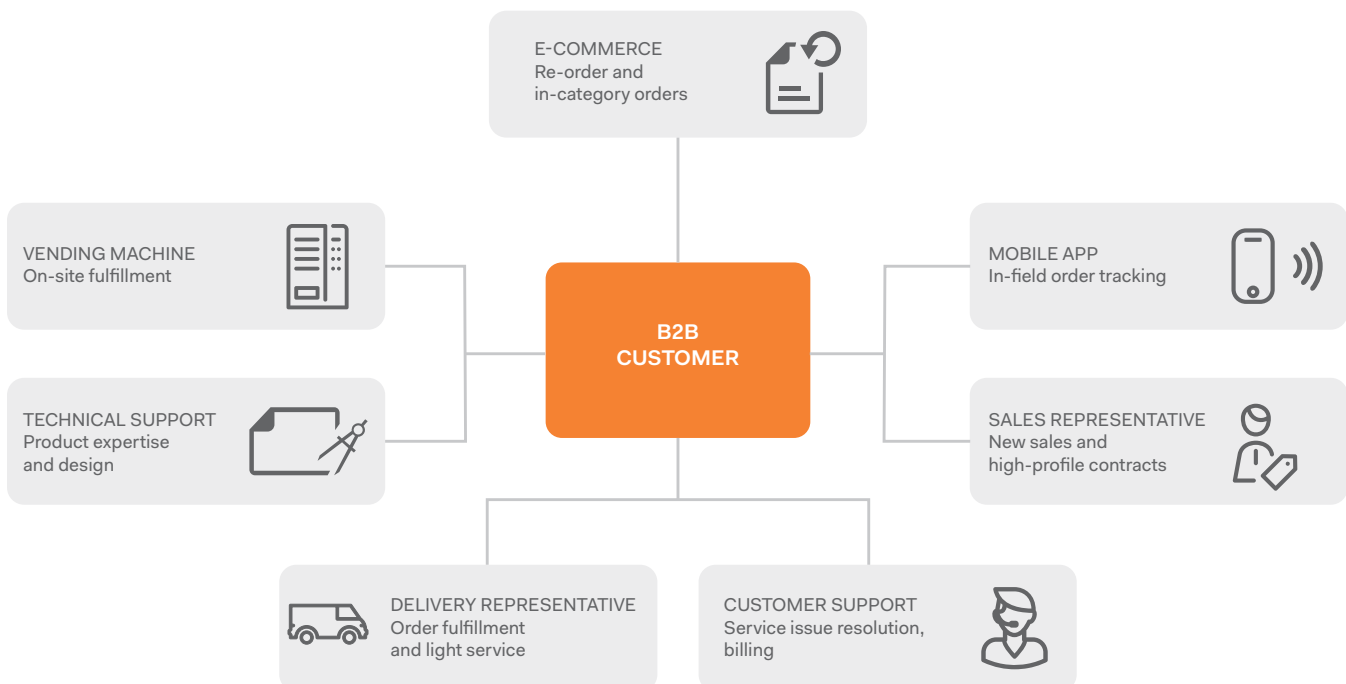
Traditionally, businesses have focused on expanding into adjacent products, but that is not the only option. For example, your organization may be able to help customers cut the cost of doing business, generate demand for your suppliers, reduce suppliers' risk, and provide suppliers with data and insight on their markets. Some businesses have already begun thinking about monetizing their data and providing solutions that share data and information products with customers and vendors.

Leading companies have a structured and organized process for innovation and solution development. For these companies, developing new solutions is not extra credit – it is their bread and butter. They have an organized process to source ideas, plan concepts, develop, test, and launch solutions. (See Exhibit 5.) Many wholesale and distribution CEOs and executives feel that this approach needs to be emerging in the industry.

The advice from this study on providing solutions is to focus on three approaches:

- Adopt a **formal process** for solution development
- Drive a **culture** of experimentation
- Create the **incentives** to innovate

Continuously improve pricing and sourcing

Many executives see pricing and sourcing as a core area and have done a lot to address it over the past few years. Two out of three executives have undertaken some sort of initiative in pricing, and half have carried out some effort in purchasing and sourcing.

Despite these efforts, many have a clear feeling that there is still significant room for improvement and that much value is being left on the table across the supply web. Even companies with a cost-efficient mindset feel there is money to be had, and there is a desire to better use data to make these decisions.

We think three factors are creating opportunity for improvement:

Changing commercial structures: Suppliers and customers are getting more and more sophisticated about how they enter into commercial arrangements. Contracts are becoming more complex, specific, and tailored, with risks embedded, and a range of models, from on premise to subscription.
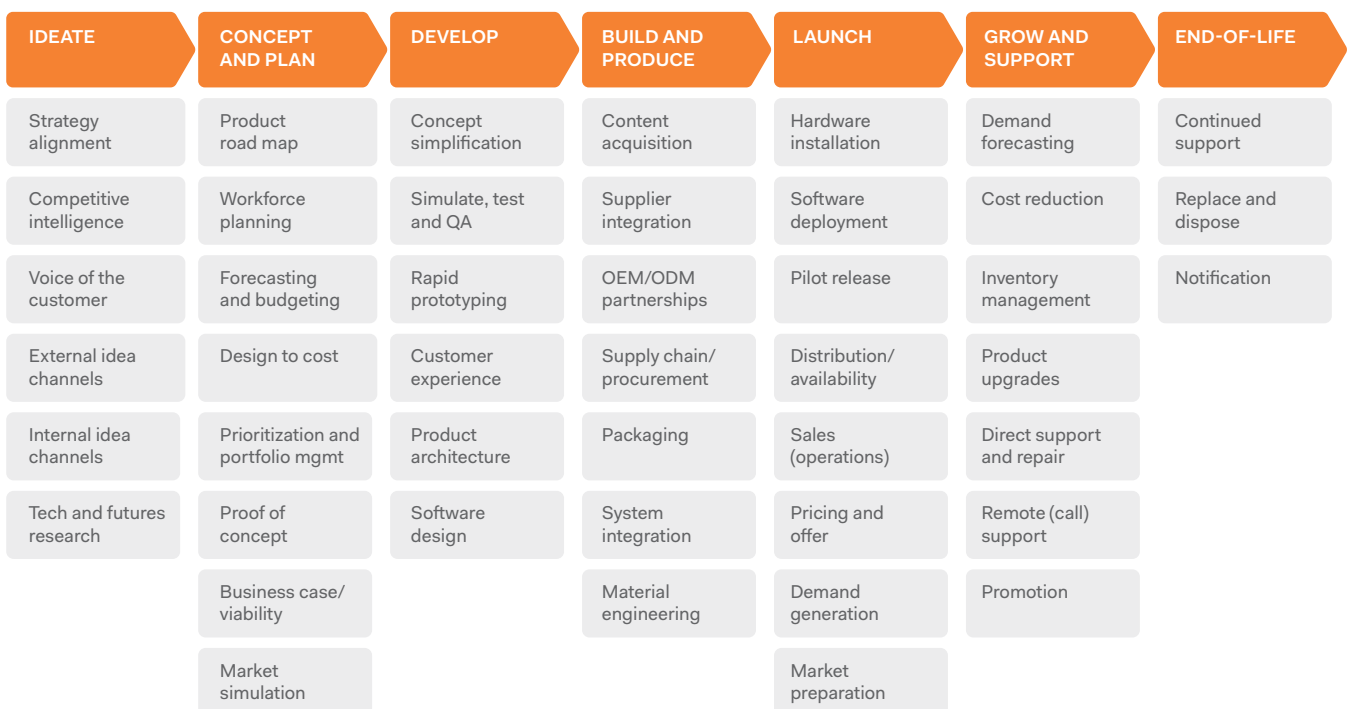
Higher price transparency: B2C is driving demand for higher transparency, and despite resistance it is bleeding into B2B interactions as well. There is a growing understanding that data is available and must be better used.

Oil and commodity inflation cycles: Costs that are critical to wholesale and distribution, such as oil and commodity prices, are constantly changing, which requires

*We changed our name to get rid of the word "distributor" because it's too simplistic a term. We're calling ourselves a **technology solutions provider***

*We do a reasonable job, but I think we can price a lot better **using all the data we have on customers***

Exhibit 5: Different distribution IT systems have different priorities

IDEATE	CONCEPT AND PLAN	DEVELOP	BUILD AND PRODUCE	LAUNCH	GROW AND SUPPORT	END-OF-LIFE
Strategy alignment	Product road map	Concept simplification	Content acquisition	Hardware installation	Demand forecasting	Continued support
Competitive intelligence	Workforce planning	Simulate, test and QA	Supplier integration	Software deployment	Cost reduction	Replace and dispose
Voice of the customer	Forecasting and budgeting	Rapid prototyping	OEM/ODM partnerships	Pilot release	Inventory management	Notification
External idea channels	Design to cost	Customer experience	Supply chain/ procurement	Distribution/ availability	Product upgrades	
Internal idea channels	Prioritization and portfolio mgmt	Product architecture	Packaging	Sales (operations)	Direct support and repair	
Tech and futures research	Proof of concept	Software design	System integration	Pricing and offer	Remote (call) support	
	Business case/ viability		Material engineering	Demand generation	Promotion	
	Market simulation			Market preparation		

businesses to manage these costs and make them more predictable.

The advice from this study on pricing and sourcing suggest the following actions:

- Periodically **benchmark** pricing and sourcing approached

- Invest in central groups or **centers of excellence**

- Task pricing and sourcing teams with **continuous improvement**

Be bold in rethinking your people strategy

People and talent is the number one issue in this study. It was the top priority of 63 percent of the CEOs and close to half of the chief experience officers (CXOs), as well as being the number one issue discussed in related research.

We think there are three forces that are coming to head and creating a "burning platform" here:

Rise of the millennials: In 2005, it was all about the baby boomers. They made up 41 percent of the workforce and managing them was the major concern. Millennials made up a paltry 15 percent of the workforce.

Fast-forward 10 years. In 2015, for the first time, millennials overtook baby boomers in the workforce, comprising 35 percent of employees, according to a Pew Research survey. This is a wakeup call for many organizations.

Three things stand out and present an important set of challenges to executives when it comes to millennials. Millennials are:

- Digitally oriented – how they interact and use digital tools

- Mission oriented – value and need a vision and greater purpose in the workplace to remain motivated

- Short-term experiential oriented vs. long-term career oriented – can leave for different opportunities even if everything is satisfactory at a current position

Need for digital leaders and culture: More broadly in wholesale and distribution, there

is a movement to drive a more digital culture from within. Wholesalers and distributors recognize the need to evolve digitally, but have not traditionally attracted employees with the requisite skill sets. These companies are beginning to grow talent from within.

Need to balance centralization vs. decentralization: The third force in play is around the balance of centralization vs. decentralization. Historically in wholesale and distribution, the safe option has been to adopt one of the extremes. The first option has been to adopt a heavily decentralized model with a high degree of local autonomy, and to work hard to get the right people running the local centers. The second approach was a heavily centralized model where there is a hard focus on getting standard processes, consistency, and disciplined execution.

More often the choice has been to decentralize, but recently many wholesalers and distributors have been experimenting with more hybrid models. We call these centrally empowered, but locally managed models.

In summary, the advice when it comes to rethinking people strategy is threefold:

- Be bold in experimenting with **new structures**

- Be bold in bringing in **new talent**

- Be bold in empowering **younger leaders**

Take a two-speed approach to technology

The fifth theme deals with what one CEO calls

his "favorite nightmare": it is the technology and legacy IT system challenge. Many executives see legacy systems as the number one obstacle to change. These systems are viewed as the biggest weakness within the company, inconsistent in performance throughout the business, and a major barrier to visibility and control.

Legacy systems are the source of all these issues. However, many who have taken a re-platforming approach have endured questionable returns and have taken on immense risk. Only 15 percent of projects have made it on time, one in three projects have been terminated, and more than half have failed to meet time, cost, and functional requirements.

The key reflection of this study and of the experiences of many of these companies is that the IT problem should be broken into two separate challenges: can't break and can't wait. (See Exhibit 6.)

Can't break: This approach is the more traditional ERP approach and is appropriate for certain portions of IT where there is high criticality. It should be used when mistakes would be very costly and there is the time to go slow, being exhaustive and deliberate. However, given the investment in time and money, this approach should be used only where necessary.

Can't wait: The second approach is much more agile and should be used for lower criticality systems. These projects should not follow a "waterfall" method, but should move quickly with constant iteration. Failures in any phase of a project are smaller scale and have controlled risk. Taking this approach allows the business to move forward with differentiating and profit-driving activities, even as slower "can't break" efforts take place in the background.

Separating into these two speeds allows companies to massively de-risk tackling the legacy system challenge. Newer technologies and products have allowed for more and more needs to be addressed in a "can't wait" manner, with many companies deciding to forego ERP transformations altogether.

This leads us to the advice for technology enablement:

- Break down your systems challenges into **two speeds**
- Put **only essential plumbing** in the first "traditional" speed
- Take an **"agile" approach** wherever possible

CONCLUSION

Wholesale and distribution has been performing well, with many large wholesalers and distributors earning good returns

Exhibit 6: Solutions development process
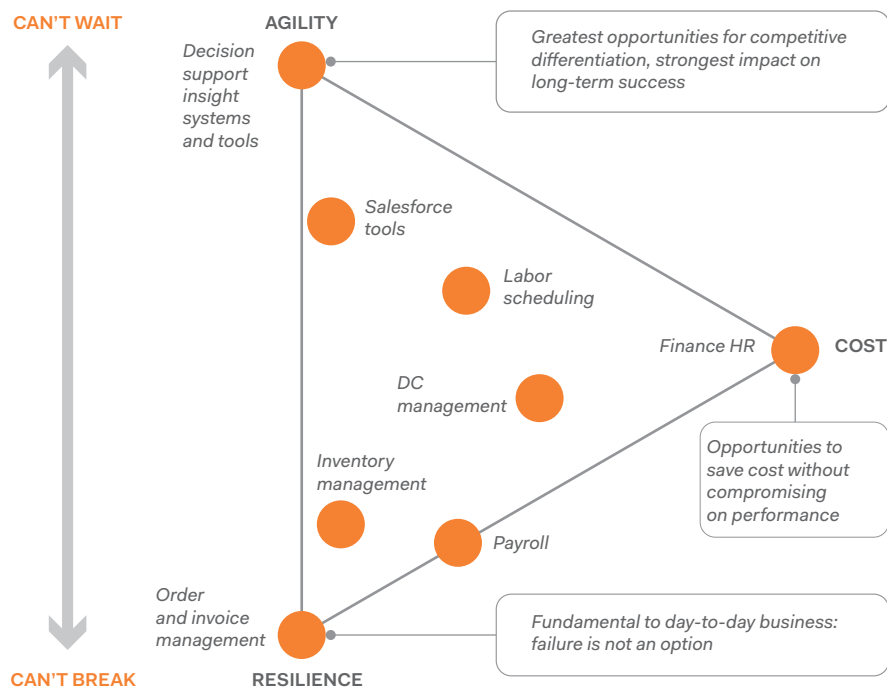
and making sound investments for the future, but warning clouds are on the horizon. Industry consolidation will create winners and losers, and it will be increasingly difficult to deliver value. Competitive forces will continue to disrupt the industry through e-commerce and omnichannel offerings. If you are not evolving your business and capabilities at an increasingly rapid pace, you could be in trouble.

The good news is there is genuine opportunity to capitalize on the trends in distribution. By taking an outside-in approach and adopting a solutions mindset while continuously improving pricing and sourcing, wholesalers and distributors can drive commercial success. Rounding out these efforts with a refreshed emphasis on a people strategy and a two-speed approach to technology, the CEO can create sustainable competitive advantages for the business.

Michael Lierow

Blockchain

THE BACKBONE OF DIGITAL SUPPLY CHAINS

Supply chains today are inherently complex, encompassing many players from around the world. Many supply chains face challenges that have significant implications in terms of cost, speed, and (product) quality. In our experience, the most critical supply-chain challenges—despite years of efforts and often significant investments—are lack of transparency due to inconsistent or even unavailable data, high proportion of manual (paper) work, lack of interoperability, and limited information on the product's lifecycle or transport history. In many cases, blockchain applications can counter these inefficiencies and add new value.

Blockchain was first deployed commercially about four years ago in the financial-services industry to make trade/claims settlements and international payments more secure and efficient. More recently, other industries, including retail and consumer goods, are piloting blockchain applications. By leveraging the technology's decentralized cloud database, which records data in non-changeable blocks that can be shared with any number of players, global players like Walmart or Carrefour intend to increase transparency and drive value at every step of the supply chain.

END-TO-END DATA TRANSPARENCY

Taking the supply chain of dry aged beef as an example, the significant potential of blockchain along the whole supply chain quickly becomes apparent. (See Exhibit 1.) In response to customers' increasing demand for local and organic products with clear origin, for example, retailers could provide select, product-related data through an app. With a simple QR-code scan on their smartphone, customers could validate every step the beef has taken through the supply

Exhibit 1: End-To-End Blockchain-Enabled Supply Chain – Example Of Dry Aged Beef

SUPPLIER

Uploads data on antibacterial fodder.

Cow is tagged with RFID chip, proving free range.

PRODUCER

Gets information on cow and designated beef products, cuts and prepares meet accordingly.

Adds QR code to packaging.

DISTRIBUTOR

Automatically receives notification about receipt of beef products.

Chooses suiting 3PL based on fully available data on customer delivery date etc.

3PL

Is informed about origin and destination of beef products.

Reviews instructuions how to store the products.

Flexibly optimizes network flows.

RETAILER

Runs machine learning-based forecasting.

Adds potential recipes and wine suggestions to the data record.

Provides app for end customer.

STORE

Has full transparency on delivery time.

Adapts orders, promos, etc. accordingly.

CUSTOMER

Scans QR code via app.

Gets insights into beef origin, ageing duration, and suitable recipes and wines.

Earns points in cross-company loyalty program.

chain, and match that journey against their expectations. Any kind of historical as well as real-time data on the beef product, be it related to the origin (such as feed or breeding), timing (such as aging duration, time in transport, best before date), location (of the farm and of the beef throughout the supply chain), or additional information (such as recipes and wine suggestions) is continuously available from the blockchain database in a single, consistent version ("one source of truth"). Through further value-added services like specific recipes and wine suggestions, retailers can drive sales of other products.

Of course, blockchain can be used in supply chains of industries beyond retail. In the spare-parts industry, for example, blockchain could capture and record spare-parts details along the full lifecycle, including remanufacturing. Numerous use cases are also conceivable in the logistics industry, such as fully digital freight papers, a digital proof of transfer of liability for goods, or automated customs clearing. Indeed, shipping-giant Maersk announced earlier this year that it is collaborating with IBM to develop blockchain applications for freight tracking and administration, including customs, in an effort to increase transparency, decrease idle time, and reduce cost.

BLOCKCHAIN IS THE BACKBONE OF SUPPLY-CHAIN DIGITIZATION

Blockchain is more than a pure electronic data interchange (EDI) – it is the backbone of digital supply chains, offering distinct advantages over today's conventional supply-chain IT infrastructure and analytics capabilities.

Blockchain is scalable—any number of players may be seamlessly integrated into the blockchain without losing data consistency. Blockchain is independent of adjacent and legacy systems, making implementation quick. Once data is recorded in a block, it is non-changeable, and the distributed-storage feature makes cyberattacks very difficult. Every player along the chain holds a complete copy of the data. But, by defining specific access rights, players can ensure that confidential corporate information is kept private. Retailers, for instance, can restrict the data customers may access to just the beef product, instead of letting them view irrelevant information on the upstream supply chain. The vast amount of available, consistent data is a powerful base for advanced analytics, like machine learning-based forecasting. Finally, a shared database means less administrative work, which lowers transaction costs and improves efficiency.

KEYS TO SUCCESSFUL INTEGRATION

In our experience, a three-step approach to gradually integrate blockchain into supply chains is most likely to be successful. (See Exhibit 2.) To start, an internal blockchain should be set up at the company, giving the organization time to get accustomed to the technology, while insuring data availability and consistency. Next, extend the blockchain to adjacent players, such as third-party logistics and direct suppliers, fostering data exchange. Finally, integrate all players along the supply chain, including the end customers, to the blockchain.

At its full potential, blockchain improves the customer experience, drives value end-to-end, and roots out inefficiencies, thereby lowering costs.

Exhibit 2: Stepwise Blockchain Integration Into The Supply Chain – Three-Step Approach

END-TO-END
Along the whole supply chain

EXTENDED
Including adjacent players within the supply chain

PRIVATE
Company-internal

5. AGILITY ADVANTAGE
DISRUPTING WITH DIGITAL

Paul Beswick
Shri Santhanam
Tom Furphy
John Marshall

Gaining a Competitive Edge in a Digital World

WHY IS IT FUNDAMENTALLY IMPORTANT FOR COMPANIES TO INCREASE THEIR AGILITY AND RAISE THEIR SPEED LIMIT?

THE WORLD IS CHANGING FASTER

As most business leaders would agree, the world around us is rapidly changing and becoming ever more complex. Nowhere is this more apparent than with consumer behavior, where change is exceedingly easy and, given new digital and mobile capabilities, the pace of change is accelerating. In 2010, Blockbuster entered bankruptcy, only six years removed from its peak revenue. In China, the WeChat messaging app took less than four years to go from zero users, to a billion. And last year, Pokémon Go reached 130 million worldwide downloads in its first month, the fastest ever for a mobile app.

"_If change is happening on the outside faster than on the inside, [then] the end is in sight_**"**

Jack Welch

While consumers can change at exponential speeds, organizational rate of change is much slower, linear at best. Large, incumbent corporations often have thousands to tens of thousands of employees, complex systems, and lengthy time horizons for decisions. Left unaddressed, the gap between customers and businesses will grow wider, leaving room for value to be created elsewhere. (See Exhibit 1.)

The critical issue then for organizations is not simply change for the sake of change, but the rate at which change takes place: If you cannot change faster than the world around you, then inevitably you will be left behind; conversely, the ability to change faster than the outside gives you a significant, sustainable competitive edge.

THE RETAIL ENGINE

For a broader perspective, it is good to look back at the successful retail business model. (See Exhibit 2.) Based on this "retail engine" model, retailers maximize cash generation by driving operational improvement and trading the business harder, which then is reinvested into expansion, upgrades, and growth.

Exhibit 1: Pace of change

CUSTOMER CHANGE = EXPONENTIAL

WIDENING GAP

COMPANY CHANGE = LINEAR
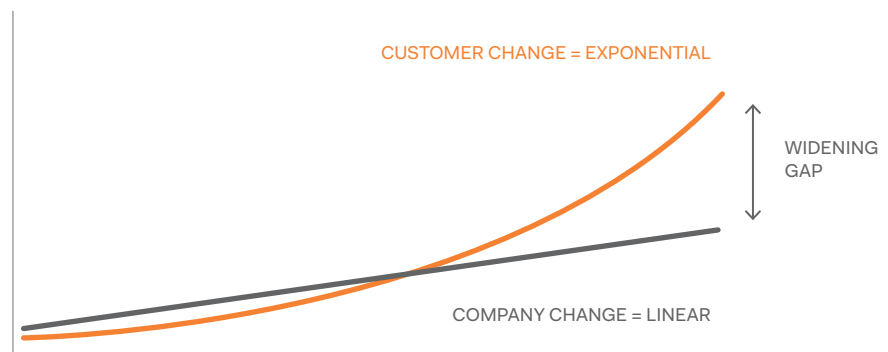
Exhibit 2: The successful retail business model

MAXIMIZING
CASH GENERATION

REINVESTING
FOR GROWTH

*Cash and ROCE
for shareholders*

*Capital and margin
reinvested*

Trade the
business harder

Expand the
core estate

CHANGE
AND AGILITY

Upgrade
the core
proposition

Drive relentless
operational
improvement

Drive growth
beyond the core

*Increased share and
operational gearing*

*Volume from competitors,
driving their negative
operational gearing*
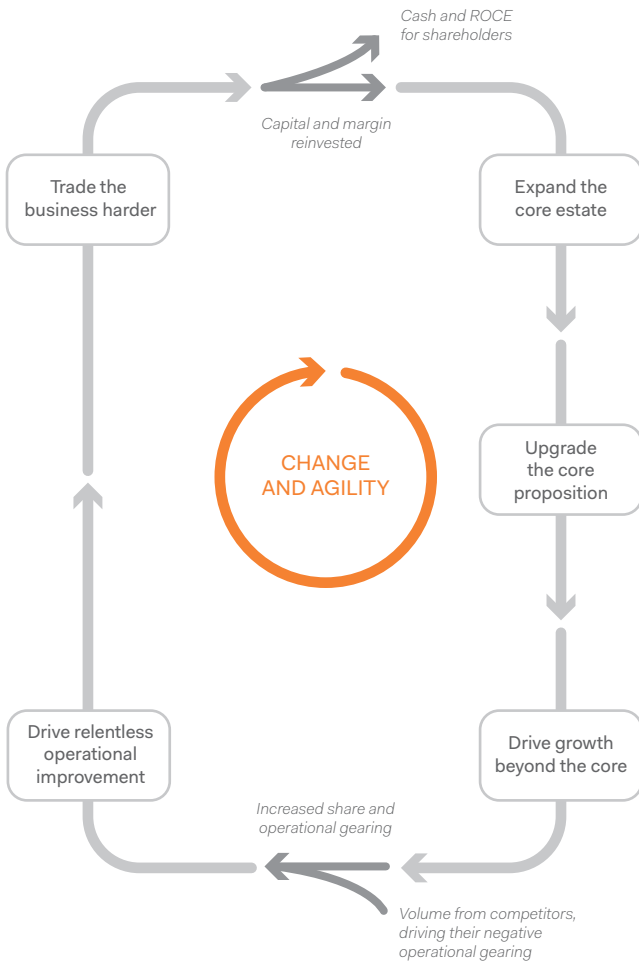
FASTER THAN COMPETITORS

But getting the retail engine to turn in the right direction is fundamentally a challenge: In the long run, retailers are only able to raise prices in line with inflation, whereas a significant portion of costs (mainly wages) grow at a faster rate. In the US, this dissonance creates about a 40 basis-point headwind that must be confronted every year.

Your ability to change has been and always will be fundamental

If a retailer is unable to continuously find efficiencies and new offerings, the headwind is a pressure that, when translated into sales impact, will slowly crush the business model. Even before the model stops working, it takes little sales loss for stores to become non-viable.

It is the core of the business model that provides the fuel to drive the engine forward – your ability to change, be agile, and keep up with customer behavior. This ability to change has always been fundamental to retail profitability, and may be even more so as change in the merchandizing world accelerates.

STRATEGIES FOR AGILITY

How should companies run their businesses to become more agile?

Business as a decision-making factory

Companies in practically every industry – with the exception perhaps of startups – find organizational change to be frustrating. Projects take longer than expected, and existing infrastructure feels sticky.

To simplify your thinking, one way to frame a business is as a series of decisions. In insurance, for example, you can map out the decision-making process from hiring and customer targeting, to underwriting and claims management. (See Exhibit 3.) In retail, the decision process would include head-office choices, assortment management, in-store operations, and more.

If you think about the decision map along with the business components focused on efficient and optimal decision making, it brings clarity to how you can unbundle the different components of the business. Certain decisions are fundamental to your competitive advantage, while others are less important. You can view this business model as a game with two simple rules:

1. You can gain points only when making decisions. The number of points you gain is determined by how well you make the decision and how important that decision is.

2. Everywhere else, you can only lose points due to the cost of moving information between decision spots, dealing with messy data, and other process components.

Viewed in this way, an optimal strategy to maximize your points becomes clear:

- **Identify which decisions really matter to your business**, and which don't

- Make improving these decisions one of your **highest strategic priorities**

- **Manage these decisions like assets** – they need to be cared for, stewarded, and continuously improved year-to-year, and ideally quarter-to-quarter

- **Streamline everything else** – engineering out the costs, the time sinks, and the gridlocks that lose you points in between decisions

The second derivative

Even if you follow this strategy of building your organization around the decision map, moving quickly can still be quite frustrating.

To at least partially explain why, we can look back to a 1990 paper in the *Harvard Business Review*, "Re-engineering Work: Don't Automate, Obliterate." A classic paper, it lays out a set of rules on what "good" re-engineering looks like. Since then, companies have collectively spent billions of dollars and dedicated an enormous amount of resources to process improvement… yet, processes today still don't hold up very well against the rules outlined in the paper.

The basic reason for that is that the world around us has changed; put simply, improved processes do not continue to remain improvements. To think about how to approach this problem, consider two concepts:

- **The first derivative** is the rate that businesses change. For the most part, businesses have learned to manage change reasonably well, where the outcome of most projects is a step forward from the original state. The problem is that while many businesses may have turned their loose processes into something much more structured and efficient, these new systems are also much more rigidly embedded and often entangled.

Therefore, it becomes very hard to change again when needed.

- In other words, **the second derivative** – the "rate of change of change" – has been slowed down by these first derivative changes because processes have been set in stone. The resulting challenge is that businesses are decelerating while the world is accelerating in change.

The key message here is to make change happen in a way that removes bottlenecks in your business and increases the second derivative, making it easier to change again and again.

To do that, you should define your second derivative strategy by **identifying all of**

Exhibit 3: A "decision map" from insurance
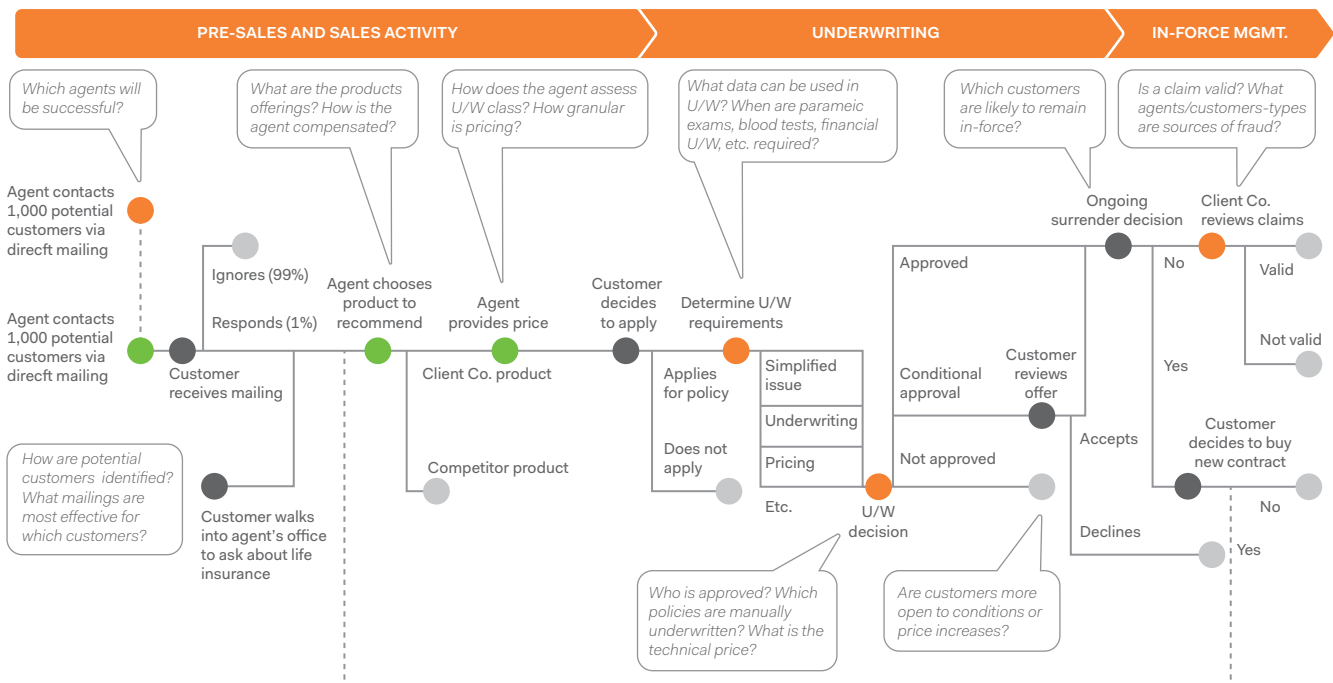
CASE STUDIES

AMAZON'S FIVE-PAGE MEMO

As a case study, we can examine how Amazon has redefined the process for making some of their most important and complex decisions at the senior executive level. At senior level meetings, project teams put together annual five-page memos in full prose, outlining a business plan that incorporates budget, innovation, and continuous-improvement plans. A typical memo may look like the following:

- Page 1: A **reflection** on the prior year's plans compared to the actual outcome and accomplishments for the year

- Pages 2-3: Plans to **improve the core business** for the upcoming year

- Pages 4-5: How the business unit would **put itself out of business** in the next year

During meetings, stakeholders spend the first 20 minutes reading through the memo and taking notes, and then devote one hour to discussion. This process has a few implications:

- **Most of the decisions have already been made by the business unit.** The prose-style narrative forces teams to think through the implications of their plans, and the short format means they are forced to prioritize the most important decision points. **To increase agility, teams have almost complete autonomy** in working out the details within the broader plan.

- **Innovation and experimentation are embedded into the mindset.** A significant portion of the discussion is focused around putting yourself out of business, and these innovation ideas are seen as a core part of budget and planning decisions.

- **Constant benchmarking and iteration** are made possible by revisiting the plan weekly to make improvements based on learnings and to monitor progress.

What types of results has Amazon produced with this approach? AmazonFresh, their grocery offering, took less than a year from initial project approval to launch. Further, all business units have forward-looking experimentation plans that are several generations beyond what is public, leading to products like Alexa, Echo, and the Kindle.

WHAT ARE HUMANS FOR?

As we think about the breakneck pace of advancements in data processing, artificial intelligence, and automation – all facilitating the flip between art and science – a provocative question is raised about the future of the workplace: What are humans for?

Elon Musk has predicted that in the future, most jobs that exist today will be automated, and the government will pay humans a universal basic income to survive. While that world may seem distant, current capabilities in technology and artificial intelligence may begin to impact retail in the near future.

Amazon recently launched a pilot for **Amazon Go,** a convenience store format that has no checkout lines. Using a wide array of cameras, computer vision, and machine learning techniques, Amazon has implemented their "Just Walk Out" technology that automatically detects when customers pick up and return items to shelves. Customers scan their phone to be identified as they enter, grab their items, and walk out of the store with a receipt automatically sent to their phones.

Beyond eliminating a major pain point in the customer experience, the checkout line, Amazon can also run these stores with bare-minimum labor costs. Currently, the pilot store mainly sells pre-packaged, ready-to-eat meal options along with convenience staples, although the assortment can easily be expanded to a full grocery offering.

While the Amazon Go model is pushes boundaries, the answer to the main question above is more nuanced. Certainly, you should look to automate rote processes from both the customer and the employee perspective (because your competitors will be doing so).

However, **the key to re-engineering the role of humans is to focus on what only humans can do, and what they are good at** – generating emotion, empathy, the feeling of connection with another human being. The role of brick-and-mortar stores also changes to become a hub for social interaction, enjoyment, and experience, rather than just a fulfillment center. In this future, **clearly defining the role of humans will become *more* important, not less.**

the bottlenecks that can slow you down. For example, many businesses today have inaccurate data, IT systems that are too complex, and enterprise architectures that are entrenched in too much of the organization.

Make change happen in a way that removes business bottlenecks

While it is difficult to make a business case to address these in isolation, one solution is to think about the second derivative during existing change programs. **Explicitly lay out second derivative benefits that can be achieved as a byproduct** of existing projects, which will make each successive project easier and easier in a self-accelerating process.

Art vs. Science

There is another ceiling as to how much you can improve your capabilities even if you nail down your decision-making priorities and your second-derivative strategy.

We refer back to another study, "The Robust Beauty of Improper Linear Models in Decision Making," published in *American Psychology* in 1979. There, research showed that humans, even subject experts, are not good at assimilating multiple input factors when making predictions – even deliberately simplistic ("improper") math models are able to systematically outperform humans.

While people may be good at identifying the various factors that are important to making a decision, it turns out that they are not comprehensive (taking into account only two or three factors) and inconsistent when making predictions. On the other hand, even improper linear models at least take into account all variables in a structured manner.

The consequence is that the current prevailing model in businesses, where human make decisions that are supplemented by

data and information, has a fundamental speed limit. Humans have a bandwidth limitation for the amount of information they can consider, even as more and more data becomes available.

Humans are not good at assimilating large amounts of information when making predictions

To get past the limit, you need to make a paradigm shift: **You need to flip the "art" vs. the "science" of decision making**, and allow the algorithm to be the starting point. Humans can then apply their expert judgment, where needed, with information not available to the model. Your ability to improve the algorithm is immeasurably greater than your ability to improve human judgment as you add more and more data. Two examples illustrate this point:

Example: Freestyle chess

In the game of "freestyle chess", teams of humans and computers work together to determine optimal moves. Winning teams do not necessarily have the best chess grandmasters, nor are they completely reliant on the best computer algorithms. Rather, the best performers are teams where experts, whether they are chess players or developers, can contribute meaningful insights into computer-suggested moves.

Example: Retail assortment

In retail, many assortment and category management decisions used to rely simply on sales and margin data. Later, more data become available, so factors such as trend, promotional sales, demographics, and regionality were incorporated. As more and more information is added, humans simply cannot process all of the data meaningfully. Instead, retailers should consider moving to algorithm-led decisions supplemented with category manager insight.

CONCLUSION

In a digital age with new entrants, rapidly evolving technology, and increased volatility, the ability to run your business with agility is indispensable. To raise the speed limit of your organization, you must first **decide that it is part of your strategic vision** to become more agile, and make that vision a core part of your business. Next, recognize that **your decisions are your most important assets** – the ones that can give you a competitive advantage – and manage these decisions like assets. Then, remove the bottlenecks in your organization by thinking about **second-derivative goals** that will make future change easier, not harder. **Finally, break through the barriers** of what humans in your organization can fundamentally do, thinking about both the art and science of decision making.

"*In today's era of volatility, there is no other way but to re-invent. The only sustainable advantage you can have over others is agility, that's it...***"**

Jeff Bezos | Founder, Amazon

Once you've made speed and agility a core part of your strategy, the next step set is to think about the direction of your customer experience. In that context, you need to answer these key questions fast:

- What's your current portfolio of innovations, and what's the timeline for each? Which ones do you need to learn more about?

- What's your learning agenda? What are the top five things you want to find out about your customers and how they think?

- How do you turn yourself into a venture capitalist, creating small teams to experiment with innovation? How can you organize the experiments so that participants understand failure is okay?

- What's your unique vision of where your customers will be two, three, and five years down the line?

- What do you need to do to meet the customer at that point in the future?

Paul Beswick

Machine Learning for Retail

USING MACHINE-LEARNING ALGORITHMS TO PREDICT SALES ON PROMOTIONS

Sales promotions are on the rise in most countries today, and retailers are struggling to make better predictions to control spending and increase returns.

Historically, when trying to predict sales based on different factors, managers have applied business logic based on experience – the quality of a brand, the shelf placement, the promotion, and so on. They typically use a series of linear regressions, plotting known sales volume against the variables, to get a decent forecast for the next promotion. This approach essentially relies on the human brain to select and analyze data.

But machine learning is much more powerful. A machine can look at history to determine which factors are most important, and to find the best way to predict what will occur based on a much larger set of variables.

In the old forecasting world led by the brain, you used one model for just about every category or type of business. In a changing environment, using customized models for each category or type of business increases the accuracy of predictions, because even if two categories are similar, they have underlying intrinsic differences that require customized machine-learning methods to capture.

In the new forecasting world of machine learning, you can build a customized model for every category or sub-category or type of business. Instead of a few decision trees, machine-learning algorithms randomly create thousands of decision trees based on sub-groups of explanatory variables; typically, if there are 20 explanatory variables, the random trees will only use four or five variables at a time (which could easily be handled by any computer). The algorithm then combines the thousands of trees to make a single predictive model that incorporates all the variables. Once "trained," the algorithm is able to automatically predict sales at the product level during any promotion. And it continues to learn as it takes in more data and results.

IT teams are now embedding machine learning algorithms in legacy systems, to run automatically week after week, as the promotions are churned out. Predictions to date have been done at the country level, but there is interest in driving down to the store level. Beyond that, the next wave of innovation will center around customization – offering personal promotions to specific customers for specific products at a specific time. Industrializing the understanding of promotions with artificial intelligence is the first step in making this a reality, as each decision to make a specific promotion will need to be undertaken a million times a day.

CASE STUDY

MULTINATIONAL RETAILER

At OW Labs, we applied a machine-learning model to help a large multinational retailer determine how given products would sell based on its print promotions. Since the retailer does 50,000 to 60,000 promotions a year, even a small increase in predictability would drive a huge increase in sales volume or save tens of thousands in wasted discounts.

Senior leadership wanted to get better at advanced analytical techniques to determine, say, what effect a 10-day promotion on a case of Coke (or shampoo) would have on sales over the next six months. They wanted to understand how strong or weak a product was, how much you had to give away to drive results, and how categories differed.

Merchandisers know that a front-page position will likely increase sales, but the impact is less clear when also considering seasonality. Factoring the type of products into the forecast adds more complexity, as soda and shampoo, say, behave quite differently, making "manual" predictions hit or miss. Add a few more variables, and the problem of accounting for 20 or more factors interacting at the same time quickly becomes unfathomable for the human mind.

In our model, we used variables such as the depth of the discount (the deeper the discount the higher the sales); the duration of the promotion (the longer, the higher the sales); the average sales without promotion (the more popular the product, the higher the sales); the display in the circular (the bigger the photo, the higher the sales); the display and shelf placement in stores; the type of promotion (Buy 2 Get 1 Free, immediate discount, or loyalty points); the type of product (soda, water, shampoo); the promotion elasticity (how much customers react to promotions on a given product) the competitive pressure (other promotions from the competition); and seasonality.

The retailer's forecasting team of six or seven, using a simple linear model to make predictions, and basically inputting data by hand, was predicting results with a 30 percent to 35 percent error rate. Right off the bat, our machine-learning model achieved far higher accuracy, cutting the error rate to 24 percent, a major improvement. In addition, the ML model was automated – and it could be expected to improve over time.

Better predictability had two immediate impacts: One, it prevented the merchandising team from generous promotions that would never deliver an ROI, thus preventing costly mistakes; two, it allowed for more informed discussions with stores on ordering inventory, preventing over- or under-ordering.

Paul Beswick

The Need For Speed

HOW "SECOND-DERIVATIVE" STRATEGIC THINKING CAN ACCELERATE YOUR COMPANY'S ABILITY TO RESPOND TO CHANGE

Managers have been automating and re-engineering processes for decades. While the initial aim may have been to improve efficiency and reliability, the end result has often been to saddle companies with a morass of entangled technologies that make it difficult to keep up with an ever-accelerating rate of innovation in the world at large.

Most companies have tried to drive cost savings and outmaneuver competitors by adopting hulking enterprise resource planning (ERP) systems that are designed to streamline business operations. But instead of enhancing competitiveness, these systems – which usually take several years to design and install – end up being rigid and inflexible, especially when compared to the new-build approaches of aggressive digital disruptors. The complexity of these systems makes it difficult and expensive to drive further change. As the pace of technological advance speeds up, companies that can't change quickly find themselves falling even farther behind their nimble competitors.

Companies that can keep up, or even surge ahead, focus instead on a strategy based on what's known in mathematics and economics as the "second derivative" – improving the rate of change itself. In business, a second-derivative strategy means focusing not just on the one-time change a project is designed to deliver, but also the additional changes an enterprise can create as byproducts that will make future projects easier. By doing so, companies can establish an acceleration effect that cuts development costs from hundreds of millions of dollars, to a fraction of that, and reduce their speed of delivery from months, to days.

Companies that follow a second-derivative strategy stick to a two-part playbook. First, they are clear about the gap between the way they deliver work today and where they want to be in the future – while accepting that their vision of the future isn't static and is likely to change many times. Then, companies identify the hurdles standing in the way of achieving that vision. Knocking down these roadblocks is made

an explicit goal of each new undertaking, so that later projects don't encounter the same issues. For instance, if every task requires weeks for server provisioning or bespoke security development, it slows innovation. A better approach is to solve for infrastructure provision, security rules, and budget approval processes all at once and then roll the solutions into assets every project can benefit from. It's hard to make a business case to address these kinds of issues on a stand-alone basis, and so it usually doesn't happen. But the second-derivative approach recognizes that it's cheaper to address them alongside existing work.

Managers should aim to adopt second-derivative strategies that treat agility as a goal in itself – enabled by building a growing toolbox of capabilities, reusable components, and standardized processes that constantly create value at a faster and faster rate.

MAKING CHANGE A CONSTANT FOR A PRODUCT

To understand the power of a second-derivative strategy, consider how rapidly Tesla's cars evolve. Tesla's strategy was to build a car like a smartphone, making it safer, smarter, and more capable over time, thanks to operating systems that could accept over-the-air software updates. Its software Autopilot 8.0, for example, allowed owners of 2012 models to install 2016 model functionalities, such as enabling the car to process radar signals more effectively and let drivers monitor vehicles two or three cars ahead of them.

Tesla has also set the stage for autonomous cars before they are fully feasible – equipping its cars with self-driving hardware even though the software has yet to be written. By installing cameras and sensors necessary to gather data about the car's environment from multiple angles, Tesla smoothed the path for future change. Essentially, data collection from millions of miles of real-world driving allowed Tesla to test and continually improve braking, collision warning, self-steering, and cruise control. Unlike other car manufacturers that are lab-testing autonomous cars before introducing them, Tesla recently offered over-the-air downloads of self-driving software to 1,000 real-world drivers so it could learn from real-world testing.

A SECOND-DERIVATIVE APPROACH TO SERVICES

Companies that follow a second-derivative strategy can expand their reach faster and with less investment than competitors.

For example, the German online digital-bank Fidor, which was acquired by Groupe BPCE of France in 2016, has a set of open and standardized processes, protocols, and tools for building application software that exists on top of its legacy operating systems. Because Fidor's interface is essentially just code and has minimal interactions with its operating systems, it (or one of its licensees) can reconfigure the interface and deploy a new bank in another country in the time that other banks would require for merely developing a project plan. With its "no-stack software-as-a-service banking," a digital bank just fires up servers, deploys code, and plugs into a slightly different set of data feeds at the back end. Using this approach, Fidor's costs per customer are only a fraction of what they are for most major banks.

Modularizing standardized IT components also permits Fidor to push out new products at an accelerated pace. Many of these products are not available at other banks. Fidor can offer real-time loans at many different points of sale, and a multi-currency eWallet allows customers to buy currency, make payments, and view balances. Recently, Fidor became the first bank in the world to accept Bitcoin as a currency, and it is now looking to use blockchain to replace traditional low-level banking services that presently cost banks tens of millions of dollars annually to maintain.

REDEFINING AGILITY

Most companies haven't fully recognized the hidden costs of the IT mistakes they began making 25 years ago when reengineering first became a buzzword – so they continue to repeat them today even as they strive for agility. Too many companies, when they think about change, still rush to build huge new IT systems that they hope will lead to big improvements – in three years, if they're lucky. In the meantime, their capabilities will have stagnated, and the complex new system is doomed to be out of date the moment it's finished. When a company's level of competitiveness is determined by the vintage of its last systems re-platforming, it's in bad shape.

To maintain competitive advantage over the long term, organizations must aspire to move faster than the market around them, both in terms of the speed of day-to-day decision making and the rate of their capability development over time. High clock-speed organizations embrace experimentation, constant iteration, and fast decision making. Moving at high clock speed requires agility – not as a software-development discipline, but as a management philosophy.

Elevating agility to a strategic C-suite objective fosters a cultural change that ripples through the whole organization.

Many companies see agility as applying only to the IT department, which is where the concept was first established. Instead, managers should aim to adopt second-derivative strategies that treat agility as a goal in itself – enabled by building a growing toolbox of capabilities, reusable components, and standardized processes that constantly create value at a faster and faster rate. Only then will they be able to raise the speed limit of their businesses, keep up with the world around them, and create lasting competitive advantage.

Elevating agility to a strategic C-suite objective fosters a cultural change that ripples through the whole organization. It changes the mindset from thinking of projects as discrete events, to thinking of them as part of a greater journey toward a more responsive and efficient organization. Organizations that adopt agility as a core strategic tenet concern themselves with the basic underlying assets that allow them to iterate and learn faster. They invest in enabling capabilities that many organizations see as high cost with uncertain returns. Agile organizations realize these investments break the bottleneck of everything they do, and create byproducts from ongoing projects that make future change faster and easier.

Building your strategy around agility itself is a very different thing than simply adopting agility as an enabler of your strategy. It recognizes that in a fast-changing marketplace, your speed of adaptation as a business is a more valuable long-term asset than your specific reactions to the situation of the day. In this paradigm, agility is fundamentally a leadership responsibility. It affects everything about how an organization runs and what it values. Achieving agility as an enabler in business is a good thing. But embracing agility as one of your top-three strategic priorities increases the odds of long-term success in an increasingly complex world.

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

JAMES BACOS

Oliver Wyman
Global Lead – Retail and Consumer Goods
james.bacos@oliverwyman.com
+49 89 9394 9441

CHRIS BAKER

Oliver Wyman
Partner – Retail and Consumer Goods
Chris.Baker@oliverwyman.com
+1 609 647 1229

PAUL BESWICK

Oliver Wyman
Global Lead – Global Head of Oliver Wyman Labs,
and Global Co-Head of Digital Practice
paul.beswick@oliverwyman.com
+1 617 424 3259

TANJA EBNER

Oliver Wyman
Principal – Retail and Consumer Goods
Tanja.Ebner@oliverwyman.com
+49 89 9394 9467

GEORGE FAIGEN

Oliver Wyman
Partner – Retail and Consumer Goods
George.Faigen@oliverwyman.com
+1 609 510-1202

DAVID FIKES

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

TOM FURPHY

Consumer Equity Partners
CEO and Managing Director
tom@consumerequitypartners.com
+1 206 290 6792

NICK HARRISON

Oliver Wyman
Co-Head of Global Retail Practice
Nick.Harrison@oliverwyman.com
+44 20 7852 7773

MICHAEL LIEROW

Oliver Wyman
Partner – Operations
michael.lierow@oliverwyman.com
+49 89 9394 9757

JOHN MARSHALL

Lippincott
Chief Strategy and Innovation Officer
john.marshall@lippincott.com
+1 212 521 0020

RAINER MUENCH

Oliver Wyman
Partner – Retail and Consumer Goods
Rainer.Muench@oliverwyman.com
+49 89 9394 9461

SHRI SANTHANAM

Oliver Wyman
Partner – Oliver Wyman Labs
shriram.santhanam@oliverwyman.com
+1 415 743 7942

FREDERIC THOMAS-DUPUIS

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