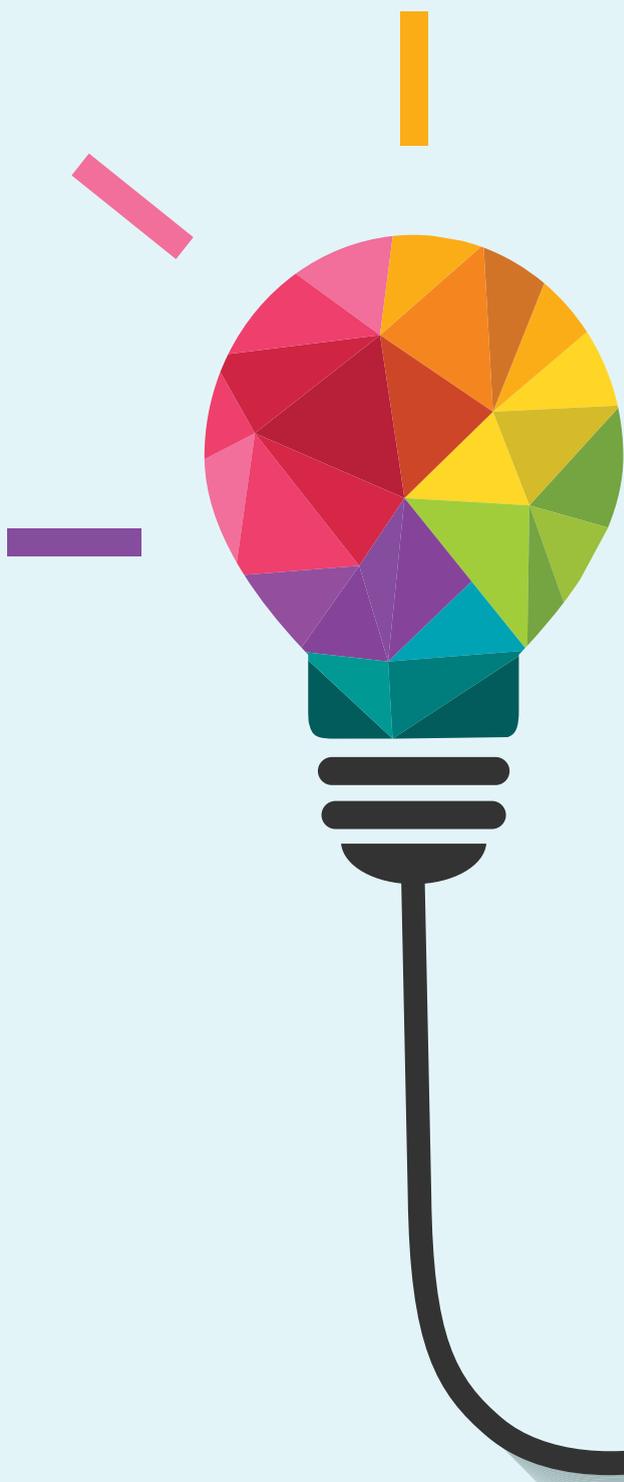


ESSENTIALS

Required reading
from EnsembleIQ's
family of brands

PART 1: INNOVATION



Solving Big Problems, Inspiring Bold Ideas

EnsembleIQ is a premier business intelligence resource that believes in **Solving Big Problems** and **Inspiring Bold Ideas**. Our brands work in harmony to inform, connect, and provide predictive analysis for retailers, consumer goods manufacturers, technology vendors, marketing agencies and service providers.

EnsembleIQ's integrated suite of solutions-based, total-market resources give you all the tools you need to achieve a strategic market advantage, giving you the insights, positioning, focus, and access, along with a team of dedicated strategic consultants to help you bring it all to life.

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Retail Leader

HOSPITALITY
TECHNOLOGY
RIS

Shopper Marketing

StoreBrands

THE BEST OF THE BEST



This is the most interesting, opportunity rich and unnerving time ever seen in the retail and consumer goods industry. This is true whether your perspective is that of a digital native college graduate just entering the industry or an industry veteran whose career began long before the Internet and who remembers scrambling for a pay phone at the airport to check voice mail.

Wherever you fall on this continuum of maturity, we are all living in times of disruption, transformation and an accelerating pace of change. Startups are disrupting startups, shopper expectations are being reset by innovation and seemingly crazy ideas must be taken seriously because they could become the next big thing. Running a business in such a climate — balancing the need to drive growth today while developing strategies to win in an uncertain future — is very hard.

Making it even harder is the abundance of information that can vary widely in quality. Turns out that the digital age has brought a lot of noise and shouting to the marketplace of ideas. We see this firsthand at EnsembleIQ and view our role as a trusted provider of business intelligence to help the markets we serve make sense of it all. We do this through a collection of industry leading brands such as *Progressive Grocer*, *Consumer Goods Technology*, *Convenience Store News*, *Shopper Marketing*, *RIS News*, *Store Brands*, *The Path to Purchase Institute*, *Apparel*, *Hospitality Technology* and *Retail Leader*. The editors of these brands, with the support of senior leadership, take credibility seriously, and it underpins a portfolio of products and services that includes websites, daily newsletters, news alerts, social media updates, webinars, white papers, live events, research services, strategic consultation and bespoke programs.

We believe it is all good and valuable, but recognize the sheer abundance of information makes consuming it all impossible. That is why we asked the editors of each brand to share their best, most insightful work, to create this publication appropriately named **Essentials**. In the pages that follow are thought-provoking and forward-looking articles on market-moving trends and consumer insights and exclusive reporting on the people, companies and technologies driving change in the retail and consumer goods industry.

We understand retail leaders are coping with challenges and striving to capitalize on opportunities that did not exist or were barely visible five years ago. And looking back five years from now the same will be true. We hope **Essentials** can provide that look around the corner at future possibilities that will position your business for success.

Mike Troy

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9 Trends YOUR Affecting ~~their~~ Future

Where
Tomorrow's
Shoppers
Are Heading

> By Mike Troy

An image of babies scooting across the floor toward an unknown destination is the perfect metaphor for the state of the retail industry. A place where a new generation of consumers is moving quickly into an uncertain future that is exciting, confusing and scary for retailers and brands.

Every aspect of the industry is expected to undergo a transformation more radical than anything that has come before and the change will occur in a compressed timeframe. Retailers and brands have to figure the future out fast, faster than consumers and competitors, to be relevant in a world reshaped by the forces of technology, lifestyle choices, new shopping behaviors and attitudes toward consumption.

While much is uncertain, we took our best shot at picking nine of the most significant trends affecting future shoppers and the industry. The result is a blend of trends ranging from the well-established ones poised to intensify further to newer trends with the potential to accelerate quickly. All will affect tomorrow's shoppers and the retailers and brands intent on serving them.

We arrived at the list after countless conversations with industry thought leaders, executives at companies facilitating disruption and listening to presentations at industry conferences. We dissected consumer research, read whitepapers and received input from senior leaders within the Innovation Practice of Retail Leader's parent company EnsembleIQ. Here's a look at the future where shoppers are heading and what retailers and brands can expect.



CONVERSATIONAL COMMERCE

The desire to eliminate friction and increase shopper convenience has long influenced the retail industry's evolution. Think shopping carts, conveyor belts at checkout and scanning. More recently, technology has eliminated pain points shoppers didn't know they had until a new, better way emerged and behaviors changed forever. That is happening again with the dawn of voice-enabled commerce, or VEC.

Smartphones are nearly ubiquitous and now the household penetration rate for in-home speakers with voice assistants is growing quickly. Advances in natural language processing have made voice interaction amazingly accurate with huge implications for retail. The most notable examples of course are Amazon's Alexa, which is accessible through a range of devices including multiple Echo form factors and Google's Home device powered by the Google Assistant.

Amazon routinely reports that Alexa-enabled devices are among its top selling items and Google said it doubled device shipments in the fourth quarter and sold tens of millions of units with retail partners such as Best Buy, Target and Walmart experiencing strong performance. The company also said it saw great momentum around Google Assistant usage, now available on more than 400 million devices ranging from

Google hardware to iPhones, tablets and watches.

The household penetration rate for smart home speakers is projected to surpass 25% this year, according to Forrester, and within five years will top 65%. Users are becoming more and more comfortable with the devices, integrating them into life's daily routines, including shopping. VEC eliminates the unnatural process of typing, tapping and swiping and will reign supreme as the next big advance in the elimination of friction.

Shoppers will be able to articulate their needs for products or even services and thanks to ever-improving fulfillment capabilities can have select products at their home in less than an hour. It will be the new normal for a generation of shoppers coming of age in homes equipped with smart home devices. The act of making a paper list, visiting a physical store, selecting products from shelves and placing items on a belt to be scanned by another person will seem archaic.

VEC represents a new frontier for retailers and brands who will need to develop shopper engagement strategies, operating models and strategic partnerships to find success. And conversational use cases aren't just for shoppers. Technology providers such as Theatro have developed a conversational interface for store associates that replaces clunky handheld devices to simplify store operations and the delivery of customer service. Meanwhile, Symphony Retail Solutions offers a sort of Alexa for analytics capability known as CINDE (Conversational Insights and Decision Engine).

If there is one qualifier for the future impact of voice it is around the potential of fully predictive models. IoT enabled products that reorder themselves or AI-driven replenishment models that fulfill products based on consumption patterns already exist. Generally, speaking VEC trumps such fully autonomous commerce initiatives because humans are irrational, impulsive and occasionally change their minds or want to try new things.



DEMOCRATIZATION OF RETAIL

Retail is everywhere all the time and for future generations that will be even more the case. In a world where every image is theoretically shoppable with the scan of a smartphone or the utterance of a desire is quickly fulfilled, the only respite from shopping may be while sleeping.

Even then, predictive algorithms will be churning to anticipate the slumbering consumer's needs.

The notion of always-on retail is a huge societal shift from the era when physical retail dominated and operating hours were restricted. Walmart changed that with the advent of 24-hour supercenters and now there is the Internet, which never sleeps. Beyond the ubiquity of retail and its accessibility, the democratization of commerce speaks to the phenomenon that everyone can be, and many are, retailers thanks to the elimination of traditional barriers to entry. Dramatic growth of third party platforms such as Amazon, Walmart, Etsy, eBay, and others give budding entrepreneurs

access to shoppers and a digital support infrastructure superior to some smaller and mid-size companies still wrestling with digital operations.

Big tech companies such as Google and Facebook also facilitate commerce. It is becoming possible for literally everyone on the planet with access to inventory, fulfillment capabilities and smartphone to be a retailer. The notion of "going shopping," which implies a time specific visit to a physical location, won't resonate with future shoppers. They are shopping all the time, or have the ability to do so anyway, from millions of merchants worldwide whose "stores" are accessible via digital means.



DIRECT TO CONSUMER

These are strange times for retailers and consumer goods companies wrestling with new shopper behaviors and new types of competitors. Both are causing fundamental changes to product distribution methods and business practices of which one of the most significant is the growth of direct-to-consumer sales. If ever there were a case to illustrate that the consumer has all the power, the DTC movement is it, and it will be even more so in the future.

Shoppers expect products to be available everywhere all the time and will seek out those able to satisfy their needs because they have the digital means to do so. The DTC shift happened because retailers and their trading partners clung to status quo methods of product distribution too long, which left an opening for new entrants unencumbered by legacy business practices such as selling direct to end users. Now the floodgates have opened and legacy brands large and small have abandoned outdated notions of channel conflict to embrace DTC efforts and dedicating senior leadership to the channel. They have no choice because consumers expect to be able to buy whatever, from whoever, whenever “they” choose, not when a legacy retailer and major CGP company allow them to do so based on pre-Internet business practices.

Brands who underestimate the potential of DTC will be sorry because it promises to be the source of future growth and valuable insights. It will also change the dynamics of retailer and supplier conversations about new item launches, planogram resets, online availability and investments in retailer specific demand generation programs. DTC gives brands the ability to satisfy their most passionate fans who may desire products lacking the mass appeal traditionally required to warrant placement on store shelves. DTC also lets brands rethink product launch strategy since the viability of an item isn't determined by the willingness of a critical mass of retailers to stock the product.

The DTC space is ripe for startup activity too. Keep an eye on a company called INS, which recently raised \$43 million to build a platform launching later this year that facilitates direct to consumers sales and is said to have pre-launch interest from big CPG.



THE ETHICAL ENTERPRISE

Many of the trends influencing consumers' future behaviors relate to the when, where and how aspects of commerce. Things like product discovery, payment methods, store experience and fulfillment options. However, before shoppers make decisions in any of those functional areas they first make emotional judgments about why and with whom they will do business.

This is where the role of the ethical enterprise and the modern articulation of the concept comes into play. Retailers and brands have always known that doing the right thing mattered. It's why there are so many corporate social responsibility reports touting accomplishments in areas such as water conservation, diversity, working conditions, women and minority sourcing accomplishments and disaster response efforts.

What it means to be an ethical enterprise has extended beyond such core areas with “mom and apple pie” appeal to unfamiliar new, emotionally charged territory where political and social justice influences are in play. Large companies are more accustomed to finding themselves in the crosshairs of vocal opponents who leverage digital tools to amplify their outrage. But a big shift has occurred where companies of all sizes are expected to take a stand on hot button issues in ways they never were before. It is a literal minefield filled with nuance because depending on the issue or individual involved it may not be enough to simply express outrage. The level of outrage needs to be proportional and timely or a company risks being perceived as slow to act or inauthentic, choosing to act only after public outcry.

This phenomenon creates a new marketing dynamic for retailers and brands when it comes to advocacy and support of public policy where issues can be double edge swords. Most recently brands that provided benefits or price discounts to NRA members felt compelled to distance themselves from the organization after a school shooting in Florida, which caused a backlash among NRA members.

This is an uncomfortable space for many mass market retailers who have long sought to avoid alienating any shopper segment. Retailers and brands are under tremendous pressure to change that mindset in an era when being an ethical enterprise means being more visible on social issues.



CYBER SECURITY

It has been said there are two kinds of companies: those that have been hacked and those that don't know they have been hacked. There is also a third type of company: one that has done extensive vulnerability testing of its own systems and employee training to thwart bad actors; engaged in contingency planning and allocated the financial resources to secure data, which has become every company's most valuable asset; and allocated appropriate financial resources and elevated cyber security to a C-level position.

Such measures are not extreme considering the technology world is in an arms race with sophisticated cyber criminals motivated by financial gain or simply the destruction of value. The consequences of failing to maintain the absolute highest levels of vigilance are enormous. Nothing destroys consumer trust or sends investors rushing to the exits faster than a data breach. Obviously, shoppers who lack trust in a retailer's ability to protect their personal information and financial details will frequent other merchants, sales and profits will suffer and so will the stock price of publicly held companies.

Just ask Target. The data breach it suffered in late 2013 dealt the company a staggering blow that resulted in huge fines, costly measures to restore confidence, a change in senior leadership and a host of new strategic initiatives to revive growth. Target

lost valuable time in the process, which is something no company can afford when the market is moving fast and consumers have abundant choices.

Cyber security has risen high enough as a risk factor that S&P working with Guidewire Software has integrated the firm's risk analytics into S&P's Global Ratings360. Cyber security is a growing component of business risk and financial losses that the firm, citing a report from the International Monetary Fund, said ranged from \$250 billion to \$1 trillion globally last year. The wide range suggests that no one really knows.

The Securities and Exchange Commission at least wants investors to be more aware of digital security risks and recently updated guidance it first offered on the matter in 2011. Companies are now expected to develop policies that allow them to quickly assess cyber security risks, make public disclosures and prevent corporate insiders from trading shares if they have knowledge of a cyber incident.

In addition to companies' own efforts, the scope of the problem is such that major trade groups have entered the fray to facilitate information sharing. The National Retail Federation recently hired former cyber security think tank expert and U.S. Senate homeland security advisor Christian Beckner to serve as senior director of retail technology. In that capacity, Beckner will lead NRF's cyber security efforts such as the NRF Retail Information Sharing and Analysis Organization and Threat Alert System, which gathers intelligence on cyber security threats targeting retailers and alerts companies to help them keep data secure.

Likewise, the Retail Cyber Intelligence Sharing Center (R-CISC), a group spun off from the Retail Industry Leaders Association (RILA) two years ago and led by former RILA executive Suzie Squier, is aggressively promoting the exchange of information. The group operates the Retail Information Sharing Analysis Center, which serves as a portal for the real time exchange of threat intelligence, strategic knowledge and tactics.



GLOBALIZATION

There is more to globalization than product sourcing and trade agreements. Aside from economic considerations, globalization is taking on new meaning for retailers and brands. Shoppers' expectations of retailers in an analog and more homogenous domestic marketplace were easier to satisfy and a retailer could define its competitive set based on a tight geography.

In an increasingly digital and diverse nation, retailers have to meet shoppers' expectations for a product assortment that resonates with their culture and community and competitors are no longer defined by proximity to a customer's home. This is a major shift that will manifest itself in several key ways. For starters, globalization means shoppers' expectations are as easily set by an overseas competitor as one down the street.

In the United Kingdom, online grocery retailer Ocado operates automated warehouses filled with a swarm of 1,000 robots that can pick a 50-item order in less than five minutes and speed it on the way to a customer's home. The company is working on autonomous delivery vehicles and robots that can climb stairs to deliver to the door. U.S. retailers are focused

on rolling out click and collect service but why would anyone want that if they can have the order delivered?

In China, Alibaba's supermarket/restaurant concept Hema is blending physical and digital in unique ways and delivering orders in a tight geographic radius within 30 minutes. Hema stores are an app-driven exercise in transparency where customers shop with their phones to access information and receive product suggestions. The app can be used to make payment or they can use a facial recognition kiosk. Employees use the stores to pick and pack orders that are delivered to a trading area of less than two miles. The concept opened three years ago and there are currently about 30 Hema stores with plans for another 30 this year.

The globalization phenomenon is also evident in the growth of cross border e-commerce, which is the fastest growing part of e-commerce. Cross border retail volumes worldwide are forecast to reach \$900 billion by 2020, up from \$300 billion in 2015, according to DHL. Online retailers are increasing their sales by as much as 15% on average simply by extending their offering to international customers who may be less price sensitive, according to the firm. A new breed of solution providers facilitate cross border trade to simplify the process for retailers and it is great for consumers who are able to order goods from anywhere in the world. For example, a company called PideloRapido gives customers in Latin America access to 160 million eBay listings in the U.S. and provides a door-to-door delivery service.



THE PRIVACY CONUNDRUM

Customers want it all. Low prices on quality goods, clean stores, easy to navigate websites, fast and free shipping, no-questions-asked returns and organic and GMO free food, even if they don't know what GMO means. Retailers are used to the shifting sands of customer expectations and know they must continually find ways to meet them.

One way the bar is being raised again is shoppers' demand for personalization, a vague objective that can take many forms but is most often associated with marketing communications and promotions based on purchase behavior. Shoppers have shown a willingness to surrender personal information if they derive value from doing so. The general assumption is that digital natives are less averse about sharing personal information while older folks tend to be more guarded and apprehensive when it comes to who knows how much.

While all shopper segments appreciate and increasingly recognize the value of their personal information, they still value privacy and chafe at perceived abuses. Retailers have become their own worst enemy in this regard with some operators routinely abusing the trust online shoppers have placed in them with incessant email marketing tactics.

That's just one example, but there is growing concern, especially among consumer activists, that Americans don't know what they don't know regarding the extent to which their personal information is collected and used, and lengthy and cryptic privacy policies don't offer much clarity even to those who read them. Meanwhile, some shoppers at the forefront of technology have eagerly em-

braced facial recognition technology, which involves an entirely new layer of data sharing.

All of these issues highlight why the European experience with the General Data Protection Regulation (GDPR) that goes into effect this May has everyone from compliance types to marketers and finance folks concerned. The regulations give individuals greater control over their personal data and imposes stiff penalties on companies who use information improperly.

Normally European regulations aren't a big deal for U.S. retailers, but this situation is different because GDPR has cross border implications for a digital world where information doesn't respect boundaries. The sweeping new law applies to all companies that collect and process data belonging to European citizens and could serve as a model for U.S. regulation if privacy advocates have their way.

According to the London-based Open Data Institute, GDPR creates a strange contradiction because customers are increasingly reluctant to share their data even though they have service expectations that can only be delivered by the collection and merging of data from multiple sources.

Resolving the privacy conundrum while delivering against shoppers' heightened expectations represents a major operational, marketing and ethical challenge for retailers and brands.



BRAND REDEFINED

The rules of brand building have changed, creating huge implications for major consumer goods companies and their trading partners. And more change is on the way as key drivers intensify, altering the definition of brand for future generations of shoppers.

The concept of brand has been traditionally about trust, quality and simplifying choice for shoppers. That

combination isn't as relevant as it once was. Brands have eroded their decision simplification advantage with prolific line extensions that made it harder for even loyal shoppers to choose among brand variations. As for quality, major national brands have seen that advantage diminish too thanks to steady improvement by retailers' private brands regularly touted as good or better than branded equivalents. Consumer advocates often reinforce that view, suggesting that being a smart shopper means purchasing store brands.

Trust remains an important driver of shopper behavior, but even that is no longer the exclusive domain of big brands. Consumers are just as likely to trust, experiment with and make repeat purchases of smaller brands perceived as innovative, authentic, specialized or cause related. No niche is too small for a brand to occupy in the digital age and social media platforms make it easy to generate awareness with a target

audience. Contrast that with traditional barriers to entry brands faced, such as securing an appointment with a buyer at a larger retailer, securing shelf space or spending millions on national campaigns to generate awareness.

Now, consumers inclined to buy smaller or mid-tier brands are causing a major headwind to large CPG companies' growth that shows no signs of dissipating. The emergence of these smaller challenger brands has given rise to the phrase "ankle-biters," which tends to be used with derision as though the small brands are a nuisance to larger established brands. One major impact of this new market dynamic has been a flurry of acquisition activity and large CPG companies look for a faster path to growth.

M&A activity is forecast to continue at a rapid pace and thanks to the relative ease with which brands can be built there will be a full pipeline of targets from which to choose.



EXPERIENCE MATTERS

There is a lot of attention being paid to the concept of "store" experience. It relates mainly to the sensory experiences one has within retail environments where shoppers buy things. There is a school of thought that suggests retailers can negate the sales and traffic draining effects of e-commerce if their physical environments are sufficiently compelling. It certainly can't hurt, but retailers face a different type of headwind to in store sales that has to do with experiences.

One of the major trends affecting how shoppers behave in the future involves the reallocation of dollars from stuff, regardless of the store experience, to actual experiences. The mindset of a younger generation, according to best-selling author Doug Stephens, is that what they own is less important than where they are, who they are with and what they are doing. This thinking is also resonating with older consumers who have spent a lifetime accumulating stuff and are in their downsizing and decluttering phase

Stores have to be about more than just distributing products, or so goes the logic from those making the cases for experiential retail. The world is awash in stuff, so prospering as a retailer has to also involve a component that is about distributing experiences. Retailers have to help shoppers — if that is even the right word to use in an experiential future — be inspired and create memories. Some retailers do this already, but there is rampant experimentation underway with new technologies and service models as retailers look for ways to drive deeper levels of engagement that go beyond the basic transaction. **RL**



THE AI ECONOMY: ARE YOU READY?

HOW THE POWER OF ARTIFICIAL INTELLIGENCE IS RAPIDLY RESHAPING THE RETAIL LANDSCAPE

BY TIMOTHY DENMAN

When they hear the terms artificial intelligence and bots the average person likely envisions the futuristic sci-fi version of the technologies, autonomous humanoid machines performing everyday tasks previously done by people. While this technology certainly exists and will only become more pervasive in the coming years, the real-world use of artificial intelligence (AI) is much more subtle and powerful.

AI is the special sauce that powers much of the game-changing technology retailers rely on to power the enterprise and provide a differentiated experience, allowing them to thrive in an increasingly competitive landscape. In fact, by 2020 artificial intelligence will be a mainstay in almost every new retail solution and will be an

investment priority among 30% of CIOs, predicts Gartner in its “AI Technologies Will Be in Almost Every New Software Product by 2020” report.

While the future is undeniably going to be AI powered, the technology is still in its infancy and has yet to reach its full potential. Trailblazing retailers that are investing in the technology today are already reaping the rewards and will be in the driver’s seat when artificial intelligence inevitably dominates the retail landscape.

RISE OF THE MACHINES

There are a number of different bots at work in the field today (see sidebar), but one of the most common and highly visible is the chatbot. While the technology has been around for years at call centers and on e-commerce sites, over the past year or two advances in natural language recognition and machine learning technology has

elevated the chatbot from novelty to effective customer service solution.

The list of retailers that have deployed chatbots grows by the day and includes powerhouse brands like Macy's, DSW, Ulta, Tommy Hilfiger and many others. The appeal of the chatbot is simple; eliminate expensive and unreliable labor while simultaneously provide an engaging customer experience that is available 24/7.

Retail's household names are quickly onboarding chatbot technology, but many still see it as a fringe solution. Only 6% of retailers report having up-to-date chatbot technology in place on their e-commerce site, while another 5% are in the midst of an upgrade, according to *RIS*' "Fourth Annual Customer Engagement Tech Trends Study." In addition, 36% of retailers will embark on a chatbot program in the next 24 months. Retailers are split on the usefulness of the artificial intelligence solution, with 56% reporting they have no plans to deploy the still emerging tech.

The reluctance of much of the retail community to embrace chatbots makes sense considering many retailers have built their reputations on one-to-one interactions between associates and shoppers and are unlikely to turn over this critical aspect of the path to purchase to a machine.

"For some retailers, human interaction may be too critical to move completely to AI," Boston Retail Partners reports in its "2017 Customer Experience/Unified Commerce Survey." "However, as consumers become more comfortable with Siri and Alexa, and we see chatbots increasingly replace traditional customer service, we may see human interaction perceived as less efficient than artificial intelligence."

Retailers are wise to tread lightly into the chatbot world, as the majority of consumers share retailers' apprehension with the conversational bots. In fact, just 17% of customers report they would likely interact with a chatbot, according to *RIS/TCS*' "Shopper Insight 360: Crossing the Great Consumer Divide," a benchmark research report that polled over 5,000 consumers. However, the percentage of shoppers willing to take advantage of a chatbot solution jumps to 26% in the highly sought after Gen Z demographic, highlighting the need for retailers to explore the technology despite their hesitation.

KNOW THY CUSTOMER

As retailers continue to debate the merits of chatbot technology, the industry has universally agreed on the import of a powerful CRM/

personalization solution. In fact, retailers have named the tech as a top technology for 2017 and over three-quarters (76%) of retailers either have an up-to-date solution in place or will have one in the next 24 months, according to *RIS/Gartner's* "27th Annual Retail Technology Study."

This powerful personalization software relies on artificial intelligence to build shopper profiles based on not only past purchases and if/then solutions, but sophisticated algorithms capable of predicting what products and services individual shoppers will have an affinity for.

"The way we were doing recommendations in the past is the way most websites do it, based on a very templated solution. Now we are able to predict what you want before you even know it. Although it is an algorithm and a robot, it does an incredible job of making those predictions."

- RUSSELL SAKS, CEO, CAMPUS PROTEIN



Campus Protein, a multi-million dollar online retailer that sells nutritional supplements, has deployed an AI execution engine to power its personalized recommendations. The solution, developed by Nosto, tracks shopper behavior including purchases, conversations, cart activity, page views, traffic sources and geolocation to build a robust shopper profile and market to customers with tailored recommendations both onsite and via e-mailed correspondence. After just a few clicks, a new user will begin receiving targeted promotions designed to spur interest and conversion on high value items.

"The way we were doing recommendations in the past is the way most websites do it, based on a very templated solution," Russell Saks, Campus Protein CEO told *RIS*. "Now we are able to predict what you want before you even know it. Although it is an algorithm and a robot, it does an incredible job of making those predictions."

The results of the program speak for themselves. The recommendation engine drives nearly 20% of Campus Protein's annual sales,



COVER STORY

thanks in part to a 15% conversion rate from shoppers that engage with the personalized recommendations and a 22% click-through rate on tailored e-mails.

AI'S NEXT FRONTIER

AI technology is being leveraged throughout the enterprise to streamline operations and enhance the consumer's path to purchase. But the technology is also being used by shoppers to shape and redefine what the shopping experience is, and can be.

47% Retailers that have an up-to-date chatbot solution in place or will introduce one in the next two years.

Source: *RIS*' "Fourth Annual Customer Engagement Tech Trends Study."

Virtual assistants like Siri, Alexis and Google Home have ushered in the age of conversational commerce and allow users to make a purchase with nothing more than their voice. For example, a simple phrase like "Alexa order more paper towels" can trigger a purchase. While these virtual assistants have boundless potential and are already reshaping the retail landscape, the emerging field of shopping assistants has the potential to shift the balance of power even further toward the consumer and continue to disrupt the competitive landscape in the customer-centric age.

Retailer-agnostic, third-party search bots allow shoppers to search countless e-commerce sites for the best deal in just a

few seconds, potentially returning results from retailers previously unknown to the shopper. These sophisticated AI solutions can be programed to not only search for best price, but also factor in customer ratings, inventory levels, fulfillment speed, etc. and return the best match based on customized search criteria.

"The real retail revolution will happen with shopping assistants," Beerud Sheth, founder and CEO of chatbot building platform Gupshup told *RIS*. "Human shoppers are pressed for time and have very limited memory and computing capabilities. With software-based shopping assistants consumers have unlimited computing power, which will be a huge disruption. Instead of the shopper comparing a couple of sites, the bot can compare hundreds. Shoppers could never do that manually."

Sheth predicts that within a year or two the technology will be prevalent throughout the consumer landscape and has the potential to alter the e-commerce industry. While third-party shopping assistants have yet to take hold across the retail market, they have made major inroads in the travel industry.

For example, the travel site Waylo can instantly search the entire pricing landscape, leveraging advanced algorithms to predict with amazing accuracy the future prices of airfare. The technology is so precise that Walyo can confidentially sell airline tickets today at tomorrow's prices.

If AI powered shopping assistants become commonplace the competitive marketplace will instantly expand for many retailers. Consumers will have infinitely more information on available goods and services, leveling the playing field and giving small and mid-market retailers greater visibility. While these shopping tools can potentially be a thorn in the side of enterprise level retailers, smart merchants will be prepared and will meet the challenge head on.

HIGH FIDELITY SHOPPING

“Not at all.” That was Eugene Roman’s response when asked if he is concerned about the potential disruption automated shopping assistants could trigger. The executive vice president, digital excellence and technology advisor at Canadian Tire is confident that this new crop of AI applications will have little effect on the retailer’s bottom line. Why is he so confident? Fidelity.

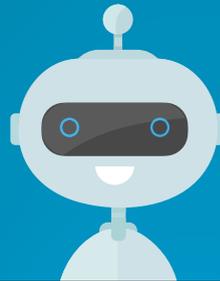
“We have a very deep understanding of the products that we sell,” Roman says. “Do AI powered apps have huge power? Sure. But we do too. What we drive is fidelity. The problem with the AI driven shopping bots is comprehension. We are investing in natural language processing. It is the math of language, and that is what allows bots to work.”

Virtual shopping assistants have the potential to place the retail landscape in upheaval, but those that are prepared for their arrival need not be concerned. In fact, by properly indexing their sites, competitively pricing products and providing deep product knowledge, enterprise-level retailers can benefit from the wide-scale arrival of shopping assistants. If they offer the products consumers desire the shopping bots will find them and perhaps introduce new consumers to the brand.

CONCLUSION

Artificial intelligence is both the present and the future of retail. Innovative, forward-facing retailers are embedding the technology throughout their organizations to redefine the shopping experience and streamline operations.

AI is the key to a successful tomorrow, and retailers need to continue to invest to stay on the cutting-edge. The machines are coming and will soon power nearly every aspect of the retail landscape. Will you be ready? **RIS**



Four Corners of the Bot-Tastic Wild World

The current bot landscape breaks down into four types:

1 BOTLETS

These low cost work bots are purpose built, fast and easy to design and deploy. They remove human effort from simple tasks, allowing workers to spend more time on value added activities.

2 SCALED ARTIFICIAL INTELLIGENCE ENGINES

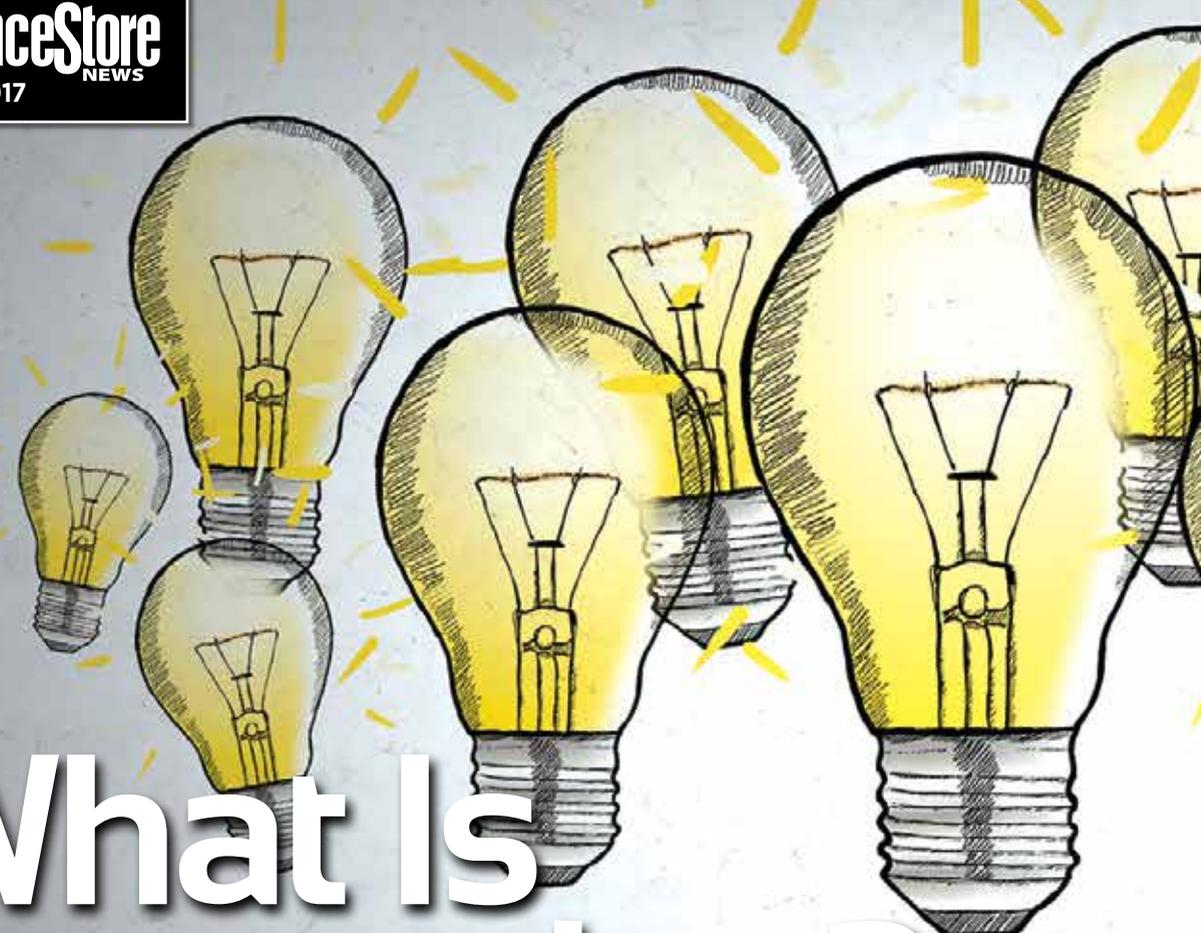
Large-scale solutions designed by neuro scientists, not computer scientists. These neuro-tech machines are built to find business opportunities and solve business problems. Limited number of scaled AI engines in the field today, but within five years, the advanced technology will be commonplace.

3 CHATBOTS

The most highly visible bot technology in the field today. The solutions can conduct a conversation with a human and be programed to understand nuanced language, both text and spoken word. Deployed to save human labor and allow shoppers 24/7 access to customer service.

4 PHYSICAL BOTS

Highly intelligent, autonomous machines used primarily in distribution centers, warehouses and manufacturing settings. In the store environment, the best example is “Shelfie,” an automous shelf-scanning robot that uses computer vision to check inventory levels and provide real-time insights



What Is Innovation?

Experts contemplate the meaning of innovation and its role in convenience retail

By Renée M. Covino

“**I**nnovation” is a seductive industry term that gets tossed around a lot, but what does it mean exactly?

Albert Einstein said we cannot solve problems by using the same kind of thinking we used when we created them. Using his logic, innovators utilize new thoughts and creative brainpower to solve problems. The end result — innovation.

But what does innovation look like in the retail world and, more specifically, in the convenience channel?

To answer this question, Convenience Store News started a dialogue with experts from various corners of the retail/supplier arena. They pondered the meaning and role of innovation in this industry,

and cast their vote for the greatest retail innovation to date. Some of their viewpoints are unique. Many core ideas overlap. But they all offer up excitement for where retail innovation is headed.

PERSPECTIVE 1: LET’S GET “PHYGITAL”

Innovation in retail means getting “phygital” or, in other words, effectively blending the physical store experience with digital information, according to Angela Fernandez, vice president of retail grocery and foodservice for GS1 US, a standards organization.

While she recognizes that consumers are in convenience stores because they are pressed for time, that doesn’t mean they lack the desire for quick access to information about a product via their smartphones. Consumers across all channels are



looking for this, according to Fernandez. She would like to see more convenience stores partner with their distributors and suppliers to be able to answer consumer questions like: What's in this granola bar? Where was it made? Does its packaging have a minimal impact on the environment?

"More companies are launching data quality programs to ensure consumers can trust the information they find online," Fernandez told CSNews. "Additionally, more technological innovation with better data quality can enable more vigilant food safety measures like POS [point-of-sale] alerts about expiry dates or recalled items."

Fernandez, therefore, believes the greatest innovation in retail to date is the "way that packaging is blending with digital information." She wants us to imagine this IoT (Internet of Things) world where packaging is the connected medium for information.

"What if you didn't have to Google a product name to get info about it? You can scan the product and pull up the ingredients, coupons, recipes and other rich content," she said.

GS1, in fact, supports the SmartLabel transparency program so that consumers can quickly

access brand-authorized product information in a consistent digital format.

"Some major companies who are active in GS1 US initiatives are also SmartLabel early adopters, including Hershey's and Unilever, pointing to their commitment to product information transparency," said Fernandez. "Additionally in the c-store industry, 7-Eleven has been very public about being the first convenience store to implement GS1 Standards on fresh food products. They are using these global supply chain standards for accurate product information and improved product transparency."



PERSPECTIVE 2: LET'S GET THEM GOING

Tyson Foods' Nancy Todys, director of c-store and vending channel development, believes that for convenience stores, innovation greatness is found in the form of better ways to meet the everyday needs of consumers on the go.

"Much of the innovation today is in food packaging, such as packaging that protects flavor and integrity over longer periods of time, while giving the consumer full visibility to the product quality prior to purchase," said Todys.

By making consumers' lives even more convenient, she sees mobile store sites and apps as one of the greatest innovations in the industry to date, allowing for online ordering of prepared food that's ready for pickup when the consumer arrives at the store. "It gives consumers back time for their busy lives," she said.

PERSPECTIVE 3: LET'S GET PERSONAL

With a world of products available 24/7 for virtual perusal today, fewer shoppers are taking the time to step into a brick-and-mortar convenience store anymore, and so personalization is the key to retail survival, believes Enda McShane, CEO of Velocity Worldwide, which specializes in personalization technology and creative marketing.

"Whether that means having personalized in-store experiences for loyal customers, special deals to attract new customers, or even interactive robots that connect via consumers' mobile devices to help bring the shopping experience to life, the bottom line is that retail innovation should always revolve around the customer," he told CSNews.

The way McShane sees it, the greatest innovation in retail to date is the use of platform technology focused on the customer. This allows retailers to have deeper insights into who their customers are,



so they can truly understand their habits and shopping behaviors.

"Once retailers have that type of data, they can then activate it to engage with personalized in-store experiences at all points of the customer journey — pre-store, in-store and post-store," he said. "Acting on useful customer data insights is the best way to build lasting customer relationships."

According to a recent survey conducted by Velocity Worldwide and Sapio Research, 53 percent of retailers wait for customers to walk into or check out of a store before engaging with them. "That is absurd," stated McShane. "Retailers need to be engaging with customers before they even walk into a store if they really want to influence shopping intent and, ultimately, sales."

The customer journey is cyclical, he stressed. "When only 35 percent of retailers analyze data in real-time, there is a majority of retailers missing out on important ways to capture insights about their customers and engage with them to build brand loyalty."

McShane cautions that "true retail innovation" isn't reliant on the latest tech trend. "It comes from having actionable data as the critical first step to a winning retail customer experience," he said. Not only does data help strengthen relationships with customers, but also with the brands retailers stock. It allows both parties to act on valuable data and customer insights to grow their businesses, he explained.

PERSPECTIVE 4: LET'S GET VIRTUAL

In its simplest form, innovation in the retail world is business enabled by technology, according to Ryan Dee, creative director at Interactions, a Daymon Worldwide marketing company. He views the greatest innovation in retail to date as twofold technologies: virtual and augmented reality (VR/AR) and artificial intelligence (AI) with voice recognition.

While still in the experimental stage, virtual and augmented reality offer compelling tools for reimaging





ining retail tasks in both the frontend and backend, Dee told CSNews. “From intuitive information overlays to immersive sessions, these platforms are poised to assist the store associate of the future,” he noted.

Regarding AI/voice recognition, Dee said, “Artificially intelligent assistants can respond to voice commands to streamline the completion of specific tasks and offer hands-free access to relevant information. When paired with contextual understanding, these systems can move toward predictive assistance, enhancing the associate experience further.”

Dee recognizes that in today’s economy, convenience is an element at the forefront of most innovative services and, therefore, he believes there is a huge opportunity for convenience stores to capitalize on these innovative technology trends.

PERSPECTIVE 5: LET’S GET DYNAMIC

Retail is becoming an arena in which to explore, expand and be gratified, according to Jean-Eric Penicaud, cofounder of Survey.com, which measures product introductions and brands at convenience stores.



“We are at the most exciting time in retail innovation during our lifetime. It is disrupt or be disrupted. It is thrive or die.”

— Don Stuart,
Cadent Consulting Group

“If you are a consumer, you know that if you ask, you shall receive and if you explore, you shall be surprised,” Penicaud relayed to CSNews. “The hyperlocal network of convenience stores and the proximity to demand offers the perfect distribution channel for new trends and dynamic consumer feedback.”

In Penicaud’s view, being able to target the consumer “live” based on their needs and expectations through

mobile, iBeacon and rewards programs, to name a few, has become “a serious differentiator” — and, in his view, the greatest innovation in retail to date.

“Constant feedback and data has allowed the industry to maximize volume at much lower costs,” he stated. “But there is still a great deal of both data and experiential integration that needs to take place in order to bridge the gap between our parents’ retail experience and today’s customized individual experience.”

PERSPECTIVE 6: LET’S GET SEXY

With high-volume, low-margin products, innovation within convenience stores will come by way of experience and service, said David Sheldon, vice president of client engagement for retail design firm Retail Design Collaborative.

“[It’s] when technology and the consumer experience are fused together in a unique way,” said Sheldon, who believes that ecommerce has taken a big bite out of physical in-store shopping and “people want to be seduced and mesmerized in the experience they have, which is where technology plays a part.”

The rise of ecommerce has been a benefit to the retail industry in a way that physical stores have had to up their game and be better at creating a unique platform for customers to engage with their brand, Sheldon told CSNews.

As an example, he offered up the new Nordstrom “service-focused” concept store in Los Angeles, which was pared down from the typical 140,000 square feet to 3,000 square feet (closer to the c-store range). This store focuses on “product, style, fit and experience,” according to Sheldon. “Nordstrom is banking on the fusion of technology colliding with experience in a fun, productive and unique way.”

He challenges convenience stores to get “sexier” in this vein.

PERSPECTIVE 7: LET’S GET SEAMLESSLY CONNECTED

Retail innovation means continuously exploring ways to do more with less, with recent advancements



in payments technology being a prime example, according to Jim Allen, senior vice president, global head of SMB operations at First Data.

“POS solutions are no longer just a means to collect payments. Instead, modern payment solutions are enabling convenience store owners to manage every aspect of their businesses remotely on a single, cloud-based platform — from collecting and analyzing sales data to managing loyalty and rewards programs,” he said.

Payment devices are also becoming critical points of engagement between the retailer and the consumer. “Through innovation, we are able to help retailers make that engagement a seamless interaction,” Allen added.

The way he sees it, some of the great innovation in retail to date includes QR code-based transactions and the ability to embed payments technology directly into any number of “connected” devices. He stressed, though, that with security and fraud threats evolving at a rapid pace, retailers must constantly adapt to protect their customers and their companies.

Ultimately, retailers should aim to go beyond simply selling products and instead strive to provide a customer experience that is convenient, secure and enjoyable, he said. “Through innovative payment options to rewarding loyalty programs, retailers can embrace new and evolving technologies to connect with customers and keep them coming back,” Allen concluded.



PERSPECTIVE 8: LET'S GET (EVEN MORE) CONVENIENT

By definition of what they are, convenience stores need to think about how to leverage innovation to be more convenient, according to Don Stuart, managing director of the Cadent Consulting Group.

“Close-in innovation should leverage this convenience strength,” he said.

He also told CSNews that “true disruptive innovation” may totally change the convenience model. For example, in addition to a gas pump, c-stores could have a merchandise pump, whereby consumers press the screen while they pump gas (a screen by the pump or a screen on their phone) and the merchandise selected is directly delivered to their vehicle either by an automated mechanism or by hand.

Stuart also imagines what the world of c-stores might look like when they no longer have gas as a draw and the world switches to electric cars. C-stores might consider offering fast battery chargers unmatched in any type of home or alternative source.

He envisions “batteries that can be charged almost instantaneously with special equipment that creates a real need and draw for the convenience stores of tomorrow.”

He goes even further, imagining that convenience stores might become “third-place meeting areas” or, even more outrageous but not out of the question in his mind, self-driving vehicles could be sent to c-stores to pick up an electronic order for delivery.

Stuart sees retail innovation evolving for tomorrow and beyond by improving the old model via better information and less friction. “Minimization of the store hassles, but duplication of the store virtually,” he said.

“We are at the most exciting time in retail innovation during our lifetime,” he added. “It is disrupted or be disrupted. It is thrive or die.” **CSN**

14TH ANNUAL

TECH TRENDS REPORT 2017



CGT

CONSUMER GOODS TECHNOLOGY

NOVEMBER 2017

TRANSFORMING TO THE DIGITAL ENTERPRISE

Keeping pace with a disruptive marketplace is forcing consumer goods companies to completely rethink their traditional business practices, from new product development to consumer engagement. *CGT's 14th annual Tech Trends Report* examines the current state of digital transformation.

Tech Trends 2017: Transforming to the Digital Enterprise



**PETER BREEN,
EDITOR-IN-CHIEF**

“All the ingredients for digital disruption are here. What’s missing are the new business models needed to drive it.”

Those words were spoken by Tony Saldanha, Procter & Gamble’s vice president of next generation services, as he spoke at a *CGT* conference in fall 2016. The IT visionary, of course, had no idea that he was aptly summarizing results from a

CGT survey that would be conducted nearly one year later.

This summer, *CGT* surveyed consumer goods companies within its community to learn about the strategies, technologies and obstacles that are part of their digital transformation journeys. The results reveal that the industry might be in better shape than some of the business headlines suggest, with most companies already taking such critical steps as rethinking strategy, identifying priorities and adopting necessary technologies.

If you’re hopeful for goods news, then, it’s that nearly all companies who responded to the survey understand the urgent need for action: Only 8% of respondents said their organizations still don’t view digital transformation as a business imperative (see Figure 1). Roughly half (49%) of companies are already taking steps toward becoming the digitally driven, consumer-focused organizations they need to be, and 28%

consider themselves “well on their way” toward achieving that goal. (Inscrutably, 15% are apparently still waiting for more inspiration.)

It’s important to note, however, that nearly all of the companies that responded to *CGT*’s survey represent the traditional, mature consumer goods industry: the average number of years in business is 43; the average revenue size is \$4.7 billion.

But traditional CGs aren’t simply competing against each other anymore. They’re facing a new wave of younger, smaller product manufacturers and hybrid manufacturers/retailers that have no need to adapt their organizations for the digital age because they were created by the digital age. “For traditional hair color companies, technology is an add-on at the very end,” said Amy Errett, chief executive officer of 3-year-old category challenger Madison Reed. “For us, it’s a starting place for everything.”

Taking the reality of this new competition into consideration, results from *CGT*’s survey might not be so good, because “taking steps” might not be enough any longer. Consumer goods companies probably need to step on the accelerator and shift their digital transformation efforts into higher gear. They must overcome the considerable obstacles to change that persist and make a full commitment to implementing the systems and processes needed to build internal capabilities, stronger external relationships, and new opportunities with consumers, as will be discussed throughout this report.

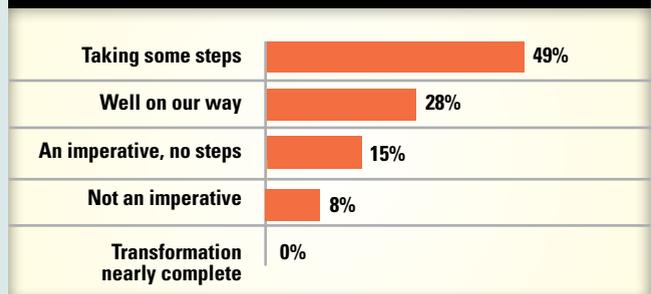
Methodology

The Tech Trends Report 2017 presents results from an industry survey conducted by *CGT* in August/September that generated 96 total responses. The 44 consumer goods companies represented in the results have an average 43 years in business and \$4.7 billion in annual revenue.

Participants were instructed to answer the questions with the following definition in mind:

“Digital Transformation” is the adoption and implementation of digitally enabled technologies, systems and processes in an effort to modernize the enterprise and improve business productivity and performance.

FIGURE 1: Company Approach to DX



Tech Trends Overview: High Expectations, Middling Progress

EVERYONE KNOWS WHAT MUST BE DONE. NOW, THEY JUST HAVE TO DO IT

BY LISA TERRY

Consumer goods industry analysts pull no punches when it comes to explaining the critical importance of digital transformation to the future.

International Data Corp., in fact, forecasts that 90% of all industry growth in the next decade will be captured by companies that successfully engage directly with consumers. That's why roughly half of CG companies expect to be disrupted by digital technology in the next 12 months, according to Forrester.

Companies have been steadily — if not quite rapidly — waking up to this reality. Consumer packaged goods companies have been slower than some other CG sectors to begin shifting their traditional strategies, despite their full realization that e-commerce, mobile connectivity and the emergence of social media as a communication tool have dramatically changed the way they must go to market.

Consumer goods business models have long been built on retail distribution and arms-length relationships with consumers. But those staples are breaking down rapidly, and that is challenging product manufacturers to radically transition their businesses to address the need for deeper understanding and direct contact with consumers who expect to get what they want when they want it — wherever and however those moments of decisions occur.

CGT surveyed a broad range of CG companies to better understand the strategies they're undertaking, the obstacles they're facing and the technologies they're implementing as part of the transformation into digitally driven, consumer-centric organizations.

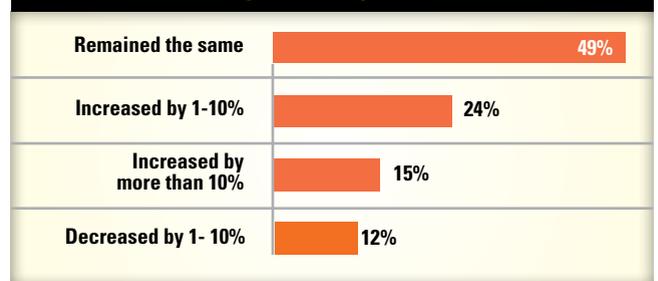
What follows is an overview of key results from the survey.

Inevitable Budget Issues

Digital transformation is, by definition, an IT-heavy exercise. But IT budgets to date have not exhibited the kind of dramatic change that would be expected (or needed) for a project of this scale. Nearly half of all respondents (49%) saw no change in their overall IT budgets for 2017, despite the increased activity they described elsewhere in the survey (see Figure 1).

Indeed, the majority (51%) of respondents acknowledge that their companies have only conservatively increased IT spending to address digital transformation; a substantial 41%, in fact, say the

FIGURE 1: IT Budget Change in 2017



30% of companies are spending 20% or more of IT budgets on DX initiatives.

FIGURE 2: DX's Impact on IT Spend

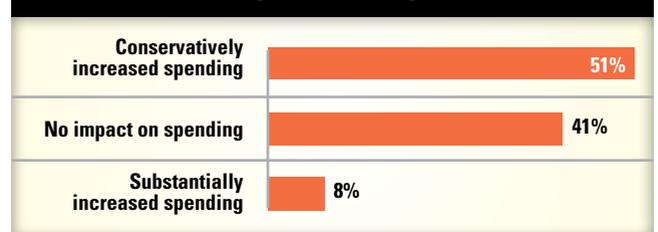
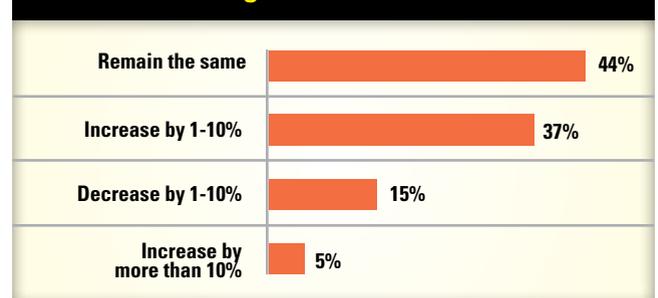


FIGURE 3: IT Budget Forecast for 2018



May not equal 100 due to rounding.



trend has had no impact on overall spending levels (see Figure 2).

Instead, more companies seem to be funding digital transformation — or “DX” — out of their existing coffers. The median percentage of IT budgets being allocated to DX initiatives is 10%, although 33% of respondents fell below that level (see Figure 5).

Still, 39% of respondents reported an increase in spending for 2017, with 15% fortunate enough to see growth greater than 10%. And a small group of companies (8%) say they’ve substantially increased spending: roughly one-third of respondents are devoting 20% to as much as 70% of their IT budgets on DX initiatives (see Figure 5).

One such “aggressive transformer” is Enjoy Life Foods (a unit of Mondelez International), which increased IT spending 20% in 2017 and will boost it another 10% or so in 2018 based on a technology roadmap that’s linked to the company’s strategic plan, according to chief sales & marketing officer Joel Warady.

More CG companies plan to follow suit: For 2018, 37% of respondents expect IT budgets to rise 1% to 10%, and another 5% project increases of greater than 10% (see Figure 3). This lags cross-industry DX spending, though — IDC forecasts worldwide spending on DX technologies to be more than \$1.2 trillion in 2017, an increase of 17.8% over 2016. Retail, health-care, insurance and banking are driving the fastest growth.

Who Handles Spending?

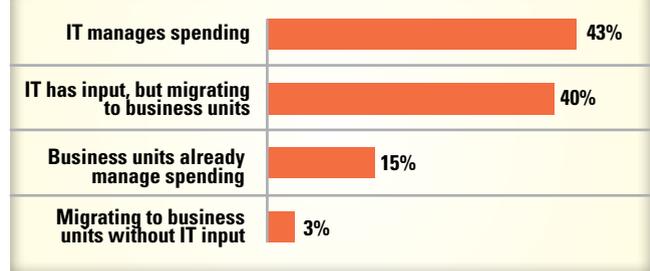
Rapid changes in both consumer behavior and the retail landscape are driving the need for faster innovation at consumer goods companies. And that could be testing the traditional IT-controlled approach to new investments. While 43% of respondents say central IT continues to manage most of the spending, 40% said that activity is migrating to the business — with some level of IT input, of course (see Figure 4).

Another 15% of companies are already there, with business units managing most of the spending. The rise of cloud- and software-as-a- service-based solutions has made it easier than ever for BUs to acquire new solutions without IT expertise; the greater need for speed when it comes to implementation and execution makes user-level decision-making more critical.

Unilever, for one, tackled this issue by creating a shared platform across the marketing organization that would let individual brands take advantage of common tools but transform at their own pace, according to ComputerWeekly. A broader goal was to establish a new corporate culture in which IT is an integral part of the business, not a back-end function.

“[The] CIO is now expected to be a courageous visionary who can create a compelling vision of what it means to transform the business through technology and tools. They’re expected to lead through influence rather than through ownership,” concluded a recent report from The Economist Intelligence Unit and SAP.

FIGURE 4: Who Handles IT Spending?



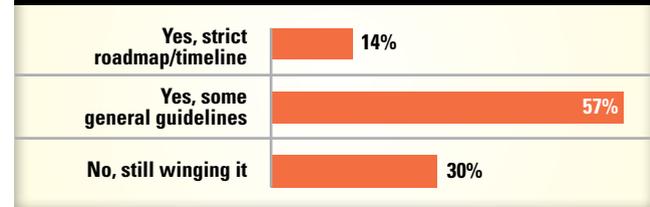
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FIGURE 5: Percentage of Spending Devoted to DX



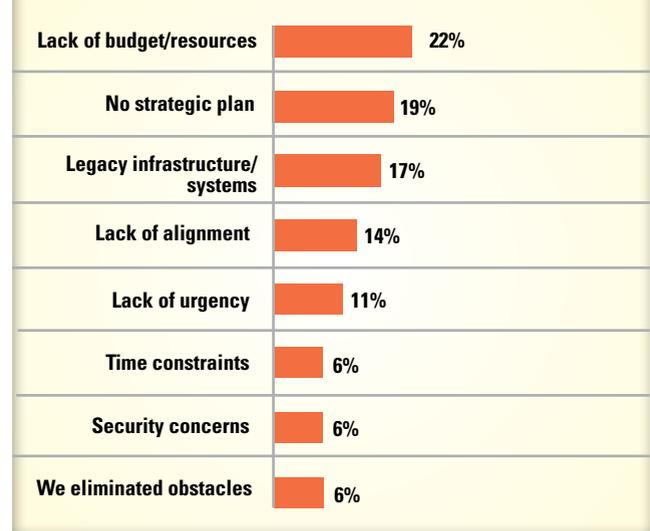
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FIGURE 6: Has your company established a roadmap/timeline for DX?



May not equal 100 due to rounding.

FIGURE 7: Primary Obstacles to DX



May not equal 100 due to rounding.



All Talk, No Action?

“We are creating a digital-first culture. This bold ambition will shape the next 150 years of the company’s progress.” That proclamation came from Nestlé chief executive officer Paul Bulcke and chairman Peter Brabeck-Letmathe in the company’s 2016 letter to shareholders.

“You can’t afford to wait until you figure everything out. You have to pick some things and just do it. This transformation is so much bigger that it needs to be much quicker,” Jon Harding, global chief information officer at Conair Corp., told *CGT*.

Comments like these from industry leaders underscore how critical the need for digital transformation is. But the pace of internal change does not match the urgency often expressed, according to the survey.

“You can’t afford to wait until you figure everything out. You have to pick some things and just do it.”

— JON HARDING, CONAIR



Nearly half (49%) of companies say they’re “taking some steps” toward transformation and 57% have “some general guidelines in place” to direct the process (see Figure 1, page 21). But almost a third (30%) admit that they are “still winging it” (see Figure 6).

Companies that have made significant progress are a definite minority: 28% of respondents say they’re “well on their way” and just 14% have a strict roadmap and timeline in place.

The aforementioned Economist study found that companies that have made significant progress started by embracing a digital mindset culturally; that led to increased investment in digital skills and technologies that could fuel transformation. Meanwhile, companies that haven’t made significant progress have been more focused on speed to market.

At Enjoy Life, “It starts at the top with the leadership team and how we make decisions, and [then how we] communicate the decisions to our team members. And it runs throughout all departments,” explained Warady.

This organizational buy-in is vital, according to analysts. “Don’t develop a digital strategy. Digitize your business strategy,” advised Forrester. About half of digital transformation leaders have created purposeful groups such as Centers of Excellence to orchestrate and coordinate strategic change across functions, compared to just 14% of the laggards, according to the Economist.

FIGURE 8: Business Functions Initiating DX
(multiple responses permitted)

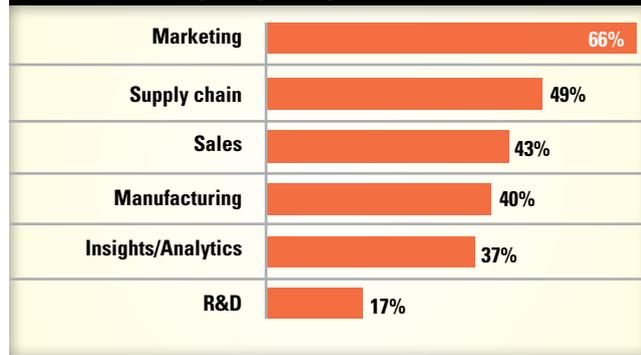
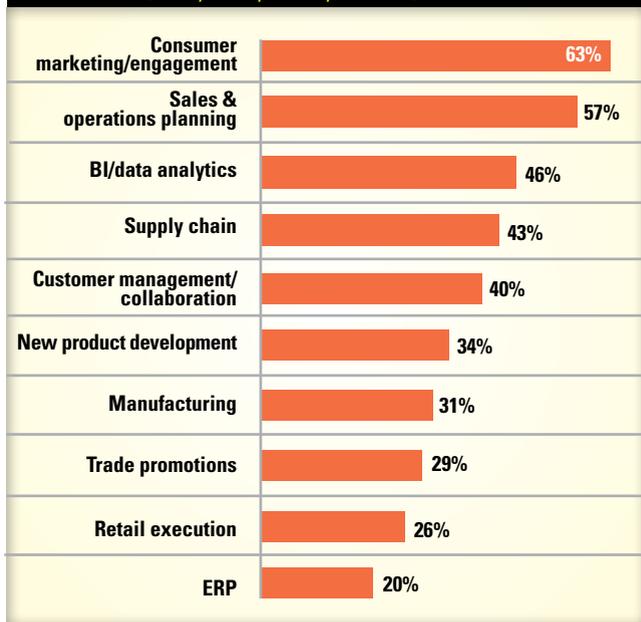


FIGURE 9: Priority Areas of the Enterprise for DX
(multiple responses permitted)



Wanted: Solid Strategies. And Money

When it comes to progress, digital transformation is running into some age-old obstacles. Respondents to *CGT*’s survey cited insufficient budgets (22%) and the lack of a strategic plan for spending it (19%) as the biggest hindrances in their path (see Figure 7).

Those two issues are followed closely by problems posed by the legacy infrastructure and systems that must be adapted — if not outright replaced — to enable digital capabilities. This snag was addressed in *CGT*’s 2017 Consumer Goods Sales and Marketing Report, where IDC predicted that as many as two-thirds of respondents will be held back in their transformation by inflexible/outdated business models, processes or functional structures.

Conair’s Harding has found that one path to overcoming these obstacles is ensuring that the right elements are in place before



a digital project begins. “You need to align the appropriate organization and people resources, because in many cases there are additional incremental initiatives on top of the way the business processes are already operating,” he said.

Making Digitization Digestible

Ultimately, digital transformation is an enterprise-wide endeavor that has the entire organization pivoting to put these new systems at the front and center of strategy and decision-making. The end goal is a modernized infrastructure that facilitates a new way of doing business.

Whirlpool Corp., for instance, no longer considers itself an appliance manufacturer but an “experience company” that helps improve the lives of its consumers. (For more, see NPDI on page 35.) Similarly, computer maker Acer is investing in customer experience technologies to personalize advice and

“The number one benefit is that the brand will not only survive, but will prosper.”

— JOEL WARADY, ENJOY LIFE FOODS



product recommendations as it transitions from a product to a service company, according to Forrester.

But such sweeping cultural change is hard to implement in one fell swoop. As Harding suggests, identifying projects aimed at specific departments and/or processes can make things a lot simpler.

“Many companies start small, focusing on reshaping one business unit or product line, which in turn helps with innovation and digital agility. Managing scope and continually experimenting to find the right answers are vital techniques,” according to Forrester.

That strategy, however, demands that all decision-making for those projects keeps the long-term, enterprise-wide perspective in mind. Some companies make the mistake of delegating transformation to specific departments in one-off ways that, in the long run, won’t support the larger corporate vision.

Starting from the Outside In

Because changes in consumer purchase behavior have driven much of the need for digital transformation, it’s not surpris-

FIGURE 10: Steps Toward DX Implementation
(multiple responses permitted)

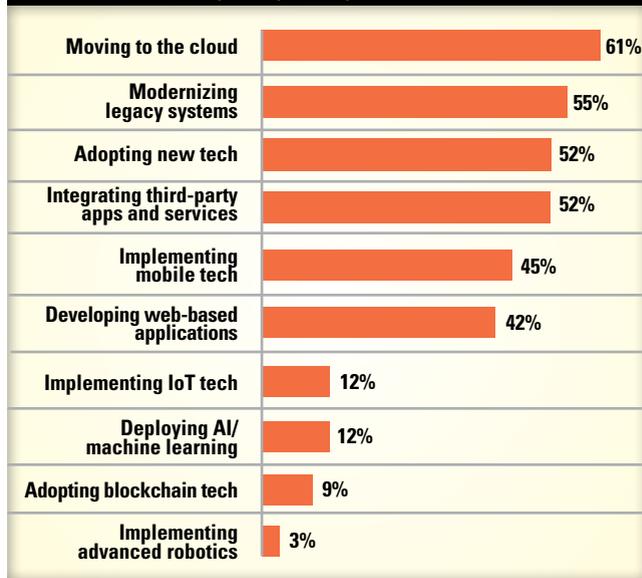
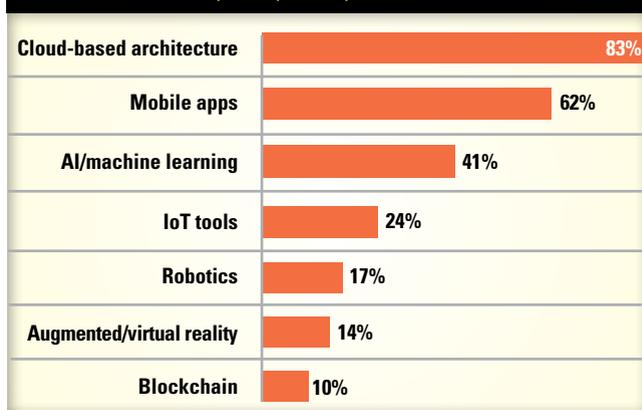


FIGURE 11: Critical Technologies for DX
(multiple responses permitted)



ing that many companies have given the marketing function the most attention thus far. In fact, 66% of respondents have already initiated DX projects in this area (see Figure 8).

The supply chain, sales, and manufacturing functions have also seen significant early investment. Conair has undertaken one project that hits all targets: constructing a new drop-ship distribution facility in Phoenix, Ariz., to support the expanding fulfillment requirements of its retailer partners — while also increasing its ability to grow direct-to-consumer sales.

Similarly, from a process perspective, consumer marketing and engagement (63%) and sales and operations (57%) are the two areas of the enterprise considered to be priorities for transformation at most companies. Business intelligence/data



analytics, supply chain and customer management/collaboration are also important targets (see Figure 9).

Enjoy Life recently formed a cross-functional team aligning IT, production, procurement, sales, marketing, customer service, logistics and the leadership team to bring digital transformation to demand planning. The goal is to improve forecasting and production efficiency, reduce waste and the level of finished goods ageing out, and ultimately to improve margins.

“Our ultimate goal is to be able to feed in the various data points and [have] the ‘system’ provide us with an optimized plan,” Warady explained. “It is extremely cross-functional in nature, but will allow for an improved case fill rate and improved efficiency in our overall production planning.”

In Cloud We Trust

Legacy systems were never designed for the demands of today’s digital business. That’s challenging companies to establish new, enabling technologies while simultaneously modernizing their infrastructures.

Cloud-based computing architecture has emerged as the go-to platform, with 61% of respondents implementing it as part of their transformation strategies (see Figure 10). What’s more, the vast majority (83%) cited the cloud as critical to their strategy (see Figure 11). Nestlé Waters North America, for example, uses marketing cloud technology to create personalized consumer journeys.

“I see the cloud as a key enabler for us,” particularly as it relates to SaaS solutions,” said Harding. “With traditional on-premise hardware and software development, we wouldn’t be where we are today in terms of this journey.”

SaaS contracts also make it easier to test and innovate. “Software-as-a-service is a great tool to have in our armory,” he added. “It allows us to be quicker to try things — but also to relatively quickly be able to kill something.”

Other high-use steps in the digital journey include modernizing legacy systems (55%), along with adopting new technologies and integrating third-party apps and services (both 52%).

Mobile technology is also high on the list for impending implementation, with 45% of companies having it on the agenda; 62% of respondents identify mobile apps as critical to their efforts (see Figure 11).

Mobile tools are vital because they provide a method of two-way communication — not only letting CGs communicate with consumers, but also to “hear back” from them in the form of behavior data that can inform future strategy.

Shining examples include Under Armour, which developed health and fitness apps that work in conjunction with “smart” products to deliver personalized user experiences and deliver

FIGURE 12: Current Digital Business Initiatives
(multiple responses permitted)

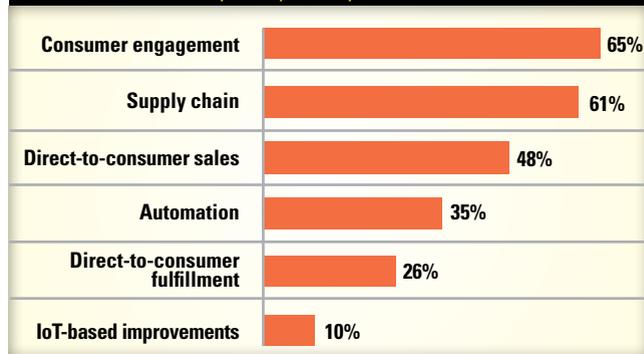
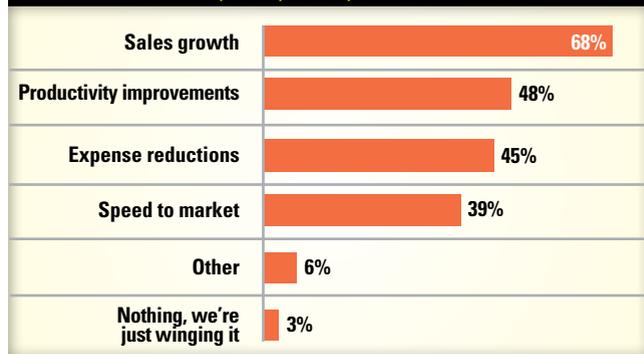


FIGURE 13: Metrics for Measuring Impact
(multiple responses permitted)



fitness and health trends back to the company.

Coming up a distant third (41%) is artificial intelligence and machine learning, a surprise considering the plethora of CGs (including numerous apparel makers) using the technology to tailor product recommendations and content for consumers. McCormick & Co., for one, uses algorithmic technology to determine a user’s taste preferences and recommend relevant recipes.

Open for (New) Business

Of course, digital transformation isn’t just modernizing existing business practices. It’s also providing the chance to explore new opportunities that may become business imperatives in the very near future.

As seen elsewhere, direct, personalized consumer engagement is getting the most attention among CG respondents (see Figure 12). Enjoy Life is using an Amazon Dash button to insinuate itself right into the consumer’s home; parent Mondelez employs smart-shelf technology in store checkout lanes that identifies basic shopper demographics to present targeted videos.

Digitally driven changes to the supply chain (61%) are also opening up new opportunities, a la Conair’s DTC drop-shopping. “Logistics will take a huge step forward through better connec-

tivity, advanced analytics, additive manufacturing and advanced automation, upending traditional warehousing and inventory-management strategies,” according to McKinsey.

Among other opportunities is micro-segmentation, the use of big data to achieve mass customization by separating the supply chain into hundreds of individual segments that can respond to customized needs. L'Oréal has adopted an “Industry 4.0” program to improve responsiveness by digitizing the supply chain; Kellogg Co.'s Bear Naked lets shoppers on its website customize their own granola.

Direct-to-consumer sales (48%) and automation (35%) are also seeing a fair amount of activity (see Figure 12). Many CG companies, including Conair, are implementing drop-ship capabilities to support retailer needs, but this also sets them up to support their own direct-to-consumer sales.

Transforming the Bottom Line

With such a massive undertaking in the pipeline, most CG companies have high expectations for a big payoff. First and foremost among their measures for success is, naturally, sales growth: It's the top benefit (55%) expected by respondents and the top metric (68%) by which they'll measure success for their digital endeavors (see Figures 13 and 14).

The cloud has emerged as the go-to architecture, with 83% of companies identifying it as critical and 61% already implementing it as part of their strategy.

Productivity improvements are also a top benefit (42%) and metric (48%), as are expense reductions (30% and 45%, respectively). Supply chain efficiencies (33%), better inventory planning/forecasting and stronger consumer engagement (both 30%) are also on the radar. The Economist study concurs with the last measure, noting that 70% of CG leaders believe that DX efforts are already delivering increased consumer satisfaction.

FIGURE 14: Expected Benefits from DX
(multiple responses permitted)



Conair's Harding recommended not forgetting about improved customer engagement, which usually has the added pass-through benefit of boosting consumer engagement as well.

“The number one benefit is that the brand will not only survive, but will prosper,” said Enjoy Life's Warady, harking back to the dire warnings discussed earlier.

For the most part, consumer goods executives have heeded the call and are making moves toward digital transformation. Inadequate budgets and undefined strategies are still presenting challenges, leaving some companies struggling with how to change the corporate culture, break down departmental silos and ensure a consistent IT approach.

Technologies like the cloud are helping them sidestep some obstacles and become more nimble and innovative, testing and learning from new initiatives. That flexibility and innovation will be critical in driving internal efficiency and improving the bottom line.

“The reality is this: Companies must remove the word ‘digital’ from the phrase ‘digital transformation’ and simply understand that all transformation must contain a digital component if they are going to be truly successful,” concluded Warady. “We're in the first inning of a very long game when it comes to understanding how digital will change our businesses down the road.”

It's comforting to know, then, that most consumer goods companies have at least stepped up to the plate. ●



A New Dawn for Analytics

NEW DATA SETS REQUIRE NEW SKILLS AND NEW PROCESSES

BY LORA CECERE

Historically, when you discuss “analytics,” the conversation centers on “reporting” or “data visualization.” Over the last five years, however, the technology has changed dramatically and, as a result, so has the definition of “analytics.”

Today, data comes in different forms — streams, lakes, clouds — each with a new set of analytics to improve business outcomes. These new forms are sandwiched between applications (enterprise resource planning, analytics platform systems, warehouse management systems, tag management systems, etc.) and workforce productivity technologies (Microsoft Office, internet search, etc.).

With these shifts in data volume, variety and velocity, consumer goods companies are coming to the stark realization that today’s analytics approaches are largely legacy. The technologies need to be updated, yes. But more importantly, business leaders need to reskill teams and update their own capabilities to understand and seize the opportunity within this new world of analytics.

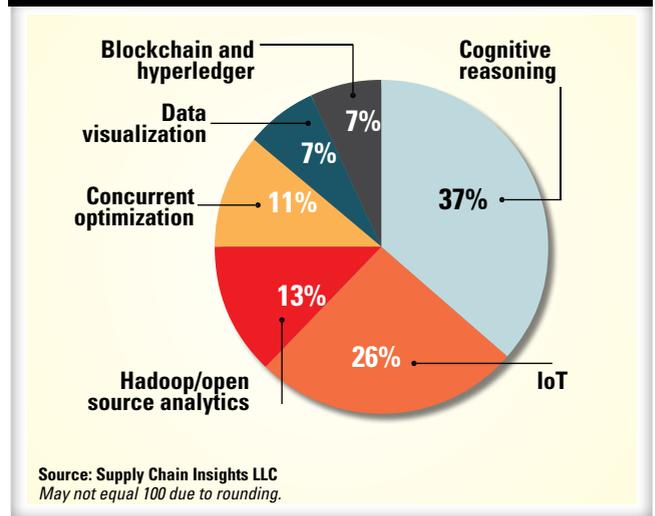
The traditional approach to analytics — reporting on top of enterprise applications (for ERP, WMS, APS, supplier and customer relationship management) — is no longer equal to the task. These solutions automated functional processes within the enterprise. Sitting on top of relational database systems using visual analytics, the analytics focused on transactional data.

The evolution of open source capabilities, which enables the use of unstructured data (text, social sentiment, warranty and quality data, weather data and images), is an opportunity for the process redefinition of social listening, quality sensing, supplier development and risk management. We’re in the middle of a process evolution to use structured and unstructured data together to drive new outcomes. The change is dramatic, and it’s happening quickly. Historically, business leaders invested in what we termed “alphabet-soup analytics.” This traditional approach automated pockets of the enterprise, but it didn’t align internal processes to make cross-functional decisions at the speed of business. The focus was on order-to-cash and procure-to-pay, along with transactional visibility. As a result, companies became rich in data, but low on insights.

The needs of today’s global businesses are much greater. Alphabet-soup analytics can’t handle the task of automating and supporting the evolution of digital, outside-in processes.

When company leaders imagine the future, it starts outside-in with the consumer. (The use of channel data including point of sale, warehouse withdrawal, and even social sentiment.) The goal is to sense market shifts, adapt to them and drive a profitable response.

FIGURE 1: Future Analytics Techniques



Accomplishing this vision requires multiple technologies. As shown in Figure 1, it involves a coalescence of analytics to redefine the future.

So let’s examine the future:

Sensors, Real-Time Data, and the Internet of Things: Streaming data from the IoT doesn’t fit into today’s enterprise architectures, which are founded on batch-based processes. These processes respond; they cannot sense.

Changing this paradigm requires the building of streaming data architectures and the definition of new processes to use real-time data. As a result, data from sensors aren’t used. Process improvements are limitless. The use of real-time data can redefine manufacturing. Instead of taking equipment down for maintenance based on mean-time failure, the use of sensors enables maintenance alerts to serve and repair based on actual conditions. Replenishment can be driven based on usage. Vehicle status is more accurate.

Cognitive Computing: Within five years, the applications of decision support — price management, trade promotion management, supply chain planning, and rules-based logic (inventory/order matching, available-to-promise and allocation) — will be replaced by cognitive computing, which has a well-defined sensing mechanism with inputs translated through an ontology into



outputs. The data can be both structured and unstructured.

Open Source Analytics: The use of open source analytics — like Hadoop, Kafka and Spark — reduces costs and improves capabilities. The use of Hadoop for data lakes and data mining, along with machine learning, improves master data management.

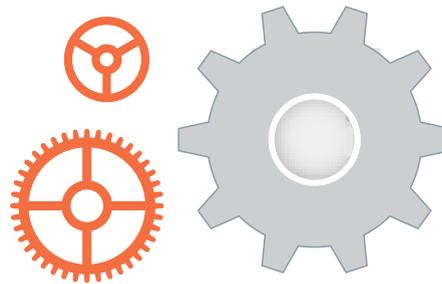
Blockchain/Hyperledger: While traditional investments focused on the enterprise, the automation of business networks represents the future. Blockchain — an immutable ledger — enables the rethinking of business-to-business analytics. While new and largely unproven, blockchain technology offers the possibility of track and trace to improve lineage, the redefinition of supply chain finance, and the ability to improve supplier onboarding.

Memory and Concurrent Optimization: Traditional applications were constrained by memory. This is no longer the case. Through in-memory computing advancements, companies now have the ability to rethink planning and decision support. Traditional applications, as we know them, shift with new capabilities as more and more data can be managed in memory.

As companies look forward, the emphasis is on active data. The focus is on more actionable, real-time data that is more consumable through insights by new forms of analytics. There is a shift away from passive, latent data with batch-based processes.

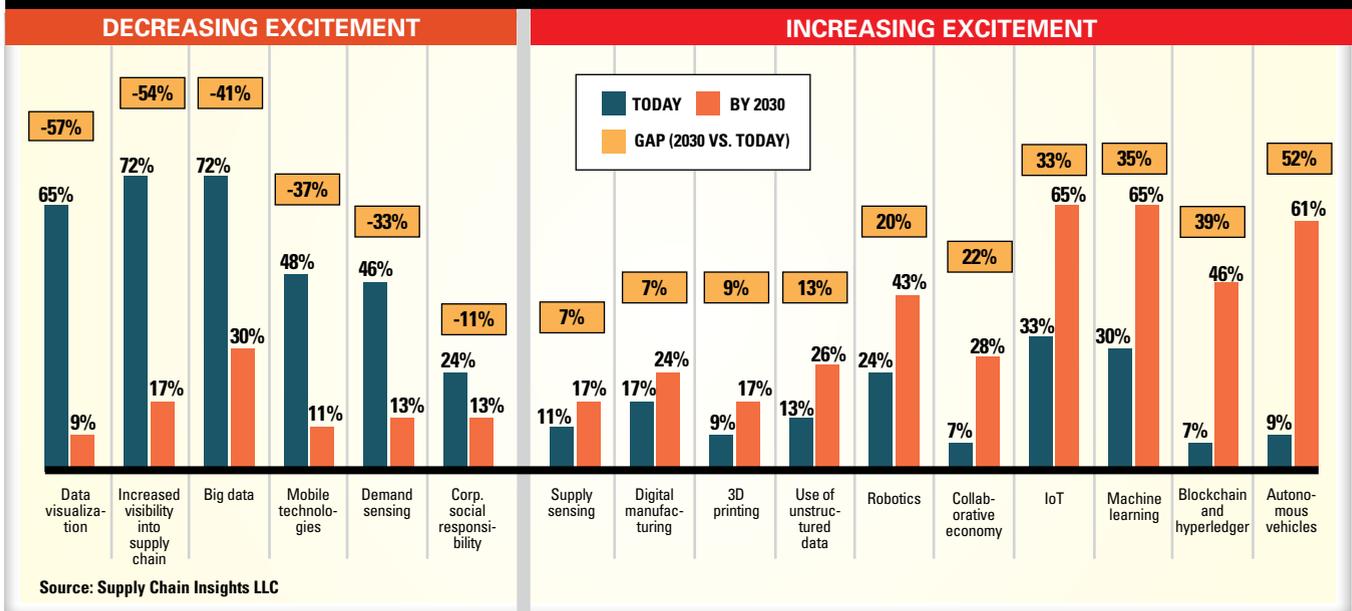
New forms of analytics embrace structured and unstructured data and move at the speed of business. Advances in open source and concurrent optimization enable outside-in processes from

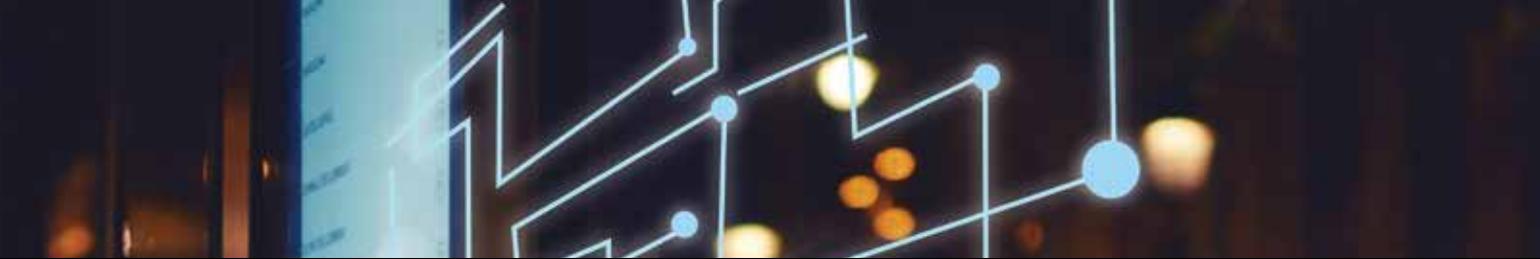
“Alphabet-soup analytics can’t handle the task of automating and supporting the evolution of digital, outside-in processes.”



the consumer back. This will redefine decision support applications like supply chain planning, price management, network design applications, transportation management/visibility, and trade promotion management.

FIGURE 2: Top Analytics Trends





In addition, the rules of the supply chain are becoming more robust. While traditional rules are “single ifs” to “single thens,” the rise of cognitive computing enables “multiple ifs” to “multiple thens.” This enables adaptive rule sets for inventory/order matching, ATP, allocation, order/invoice matching and deduction logic, along with freight matching/routing.

The supply chain is moving to multi-tier processes to disintermediate banking and define finance. This, along with outside-in process flow, relegates enterprise applications developed in the last two decades on the backbone of ERP as the system of record.

This evolution will not be a step change. It will happen incrementally over many years. The solutions will not come from one vendor, but from many. To seize the opportunity, companies should build a cross-functional business team to test and learn about new analytic techniques. With the best opportunities often coming from best-of-breed small vendors, there’s a need to learn to partner with innovators.

In addition, companies need to build a strategy to reinvent process capabilities based on new forms of analytics (see Figure 2). This requires “unlearning” and then “retooling” the organization. Companies will need to learn new concepts and build new capabilities.

Simultaneously, the traditional world of supply chain management, as we know it, will be redefined. We must first learn the practices of the past to then “unlearn” them in order to imagine the future. The technology is the easiest element. The hardest step is unlearning to enable the re-skilling. ●

Redefining Trade Promotion

IS COGNITIVE COMPUTING THE KEY TO THE FUTURE?

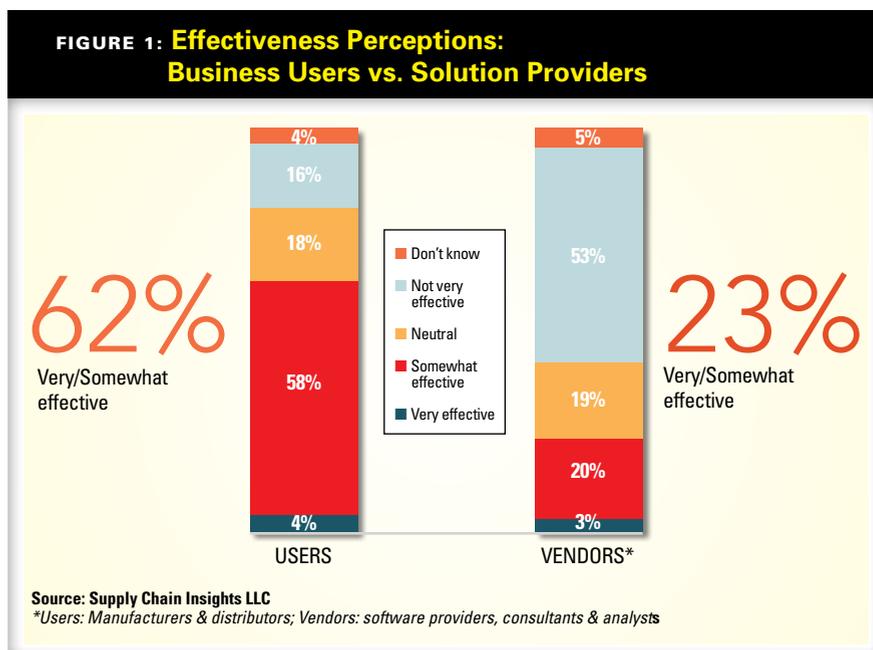
BY LORA CECERE

The trade promotion technology solution market is troubled. While 62% of business users believe existing solutions are effective at revenue management, only 23% of the technology vendors themselves agree, as shown in Figure 1. (Note: Revenue management is the determination of effectiveness for price changes, trade promotion tactics and in-store positioning.)

This gap sparks a very competitive market in which technologists compete heavily for a few deals. This creates a circular market of new technology launches, consolidation, and over-hyped promises. Unfortunately, there are more sellers of technology than buyers. There is no compelling, over-arching reason to change or shift technology approaches.

One significant marketplace gap exists between the expectations of business users and the perception among vendors and consultants about what those users need. The visions are not aligned. While the technology community is very centered on anchoring trade promotion solutions around customer relationship management as an enterprise-focused solution, business users are more interested in an outside-in set of capabilities for new product launch, price management and other needs (see Figure 2). Underlying this shift is the use of new forms of analytics to sense and drive decision support based on point-of-sale and channel data.

Traditional approaches to trade promotion focused on the automation of marketing and financial planning, giving sales account teams “checkbook-type functionality” to





manage their spending. The goal was more management and control versus any real optimization of spending and activity.

Within five years, this approach will give way to cognitive computing based on point-of-sale data and demand insights. The current world of trade promotion is shifting, but not to the prevailing, traditional view of technologists, because the goal is no longer about making the enterprise more efficient by automating sales account team controls.

“The future is about more effective use of data to break down organizational silos and seize market opportunities. The goal is growth.”

Instead, the future is about more effective use of data to break down organizational silos and seize market opportunities. The goal is growth. It currently takes the average business user four weeks to understand if a trade promotion was effective. And the area of new product launch — which is increasingly critical to growth — is especially gnarly. The perception among vendors

is that it takes only two weeks. But they are out of sync with market reality.

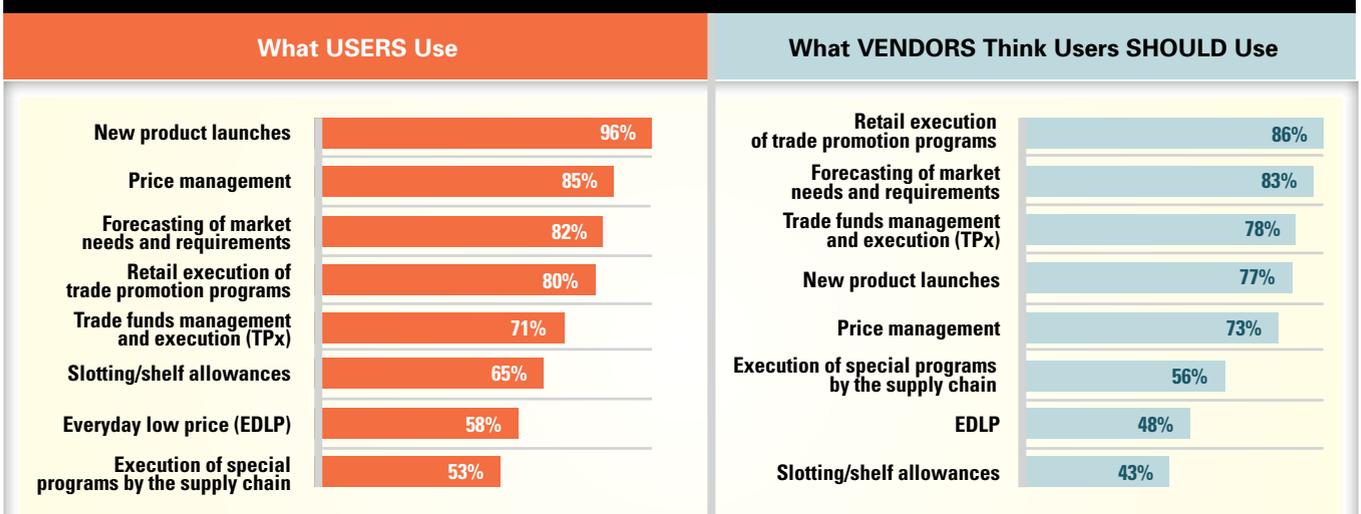
A key question is whether current solution providers can reinvent themselves by moving past the traditional, and largely outdated, solution definitions often termed “TPx”? Despite the many great improvements in functionality made in the space over the last five years, are technologists yet selling what business users want and need? Or are they missing a larger opportunity? And will new players help to redefine the space?

The space is messy, but what’s clear is the need for better alignment on market needs between technology buyers and sellers.

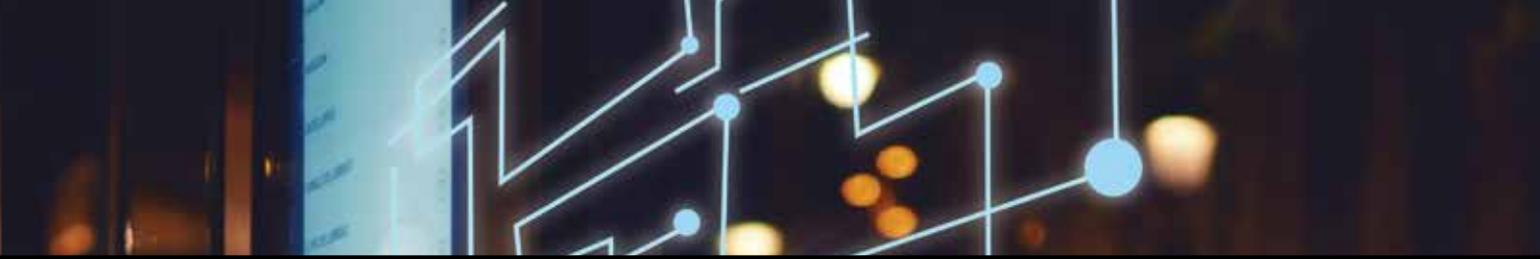
Machine learning, cognitive computing and the use of POS data all offer opportunities for technology improvement. Business users with a deep understanding of POS data, such as General Mills and PepsiCo, will have an advantage in driving innovation. Business laggards still dependent on syndicated data and lacking an understanding of POS will be at a disadvantage. In the scramble for growth, building capabilities to capture sales through digital transformation will bring these issues to a head.

Today, 7% of consumer goods manufacturers are testing cognitive computing as a replacement for trade promotion decision support. How fast these early adopters can drive scale and create value will determine how much of the industry will follow — and how quickly it will happen. ●

FIGURE 2: Solutions Gaps: Business Users vs. Vendors



Source: Supply Chain Insights LLC
 *Users: Manufacturers & distributors; Vendors: software providers, consultants & analysts



Moving to Outside-in Supply Chain Processes

DIGITAL TOOLS CAN TRANSFORM EVERY STEP IN THE SYSTEM

BY LORA CECERE

Today, the word “digital” drips from the tongues of technology providers and consultants. But without a common industry definition of what that involves, it’s hard to make any digital plans actionable.

For the business user, the goal is growth, of course. For the technologist, with slowed spending on enterprise resource planning, the goal is to create a new market opportunity. But digital market transformation is happening more slowly than was expected by many technology providers, consultants and analysts, as shown in Figure 1.

Digitization transforms businesses. And the most successful transformations redefine business models. A digital business model uses new forms of technology to create new streams of revenue and business value. It’s about combining technologies to sense market changes in real time and shape a more meaningful output.

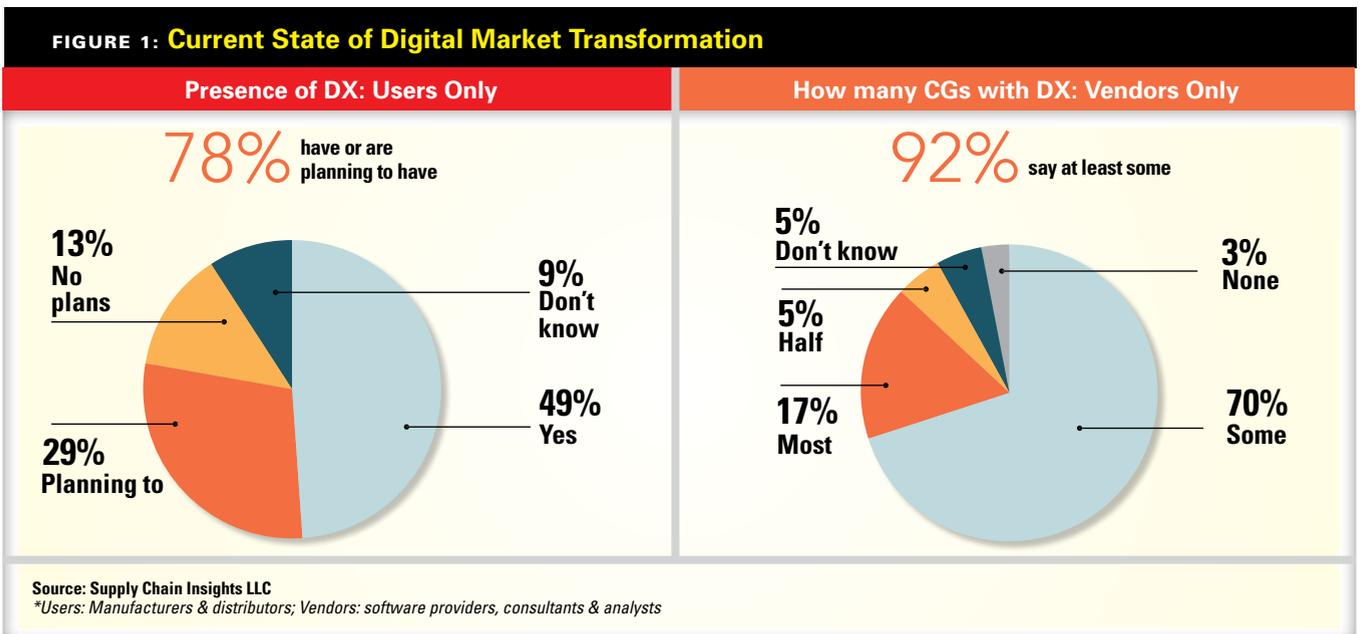
Digital business is about much, much more than the redefinition of business processes for business-to-business or business-

to-consumer. E-business strategies are foundational and necessary, but digital business goes beyond e-business. Today, B2C models are well defined, but B2B processes lag behind: Only 9% of B2B commerce flows through business networks.

When executed correctly, digital business strategies are transformative. Here are five examples:

Digital transportation and logistics: Telematics and the use of global positioning systems have changed the lives of truck drivers in their cabs. They can see real-time traffic jams, view shifts in road closures and quickly check the status of vehicle maintenance. Likewise, the dispatcher can follow the truck’s position and expected time of arrival. Digital transportation is rapidly changing logistics.

Uber is a good example of a digital business strategy in transportation. While Uber currently powers a network of taxi and car services, its ultimate goal is to redefine the automotive supply chain, to replace automotive purchases with easy-to-use car services.





A parallel example is what happened with performance-based logistics in the world of aerospace and defense. This industry was redefined through collaborative sharing, and is shifting to autonomous vehicles for transportation and logistics and the use of the automobile as a social meeting place on wheels.

Digital process manufacturing: Predictive maintenance in process manufacturing is based on the mean time between equipment failure and the development of predictive schedules to perform maintenance before those failures occur.

Yet within the factory, sensors abound. Equipment purchased within the last decade runs by a programmable controller that tracks the “health” of machine-pump pressure, motor temperature, oil viscosity, and temperature and services machinery, when needed.

The digital manufacturing process is about redesigning through mobility, the internet of things and cognitive learning. Within process industries, only 5% of companies are attempting to use mobility within manufacturing and only 3% are using wearable devices.

Digital discrete manufacturing: In discrete manufacturing, parts are made to order. Traditional processes such as milling, casting and machining utilize subtractive manufacturing: materials decrease as the item is manufactured. Digital printing, or additive manufacturing, or 3D printing, changes that equation.

In additive manufacturing, substrate is added to make the part. Discrete items are made based on digital images. Today, 15% of discrete manufacturers are actively pursuing 3D printing for production-based processes; for one, digital printing is increasingly being used for prototypes. The opportunity here is quick and easy production of each “unit of one.” Examples include specialized shoe inserts customized for each buyer and samples of packaging materials and parts.

Digital agriculture: Traditional agriculture is based on well-known methods of planting, harvesting and food manufacturing. Digital agriculture is a step change. It’s the reason that John Deere tractors are now equipped with sensors to read a field’s moisture and temperature levels, and why manufacturers like Land O’Lakes are investing in test beds to use sensing technologies and advanced analytics to measure the soil, weather, crops, seed traits, fertilizers and additives; the testing identifies the best combinations to improve yield.

Digital path to purchase: In the consumer packaged goods industry, there are four “moments of truth” in the purchase cycle when marketers can influence decisions: when the shopper is making a list, when she’s putting the item into the basket, when she’s buying the product at checkout and when she’s talking about her experience on social media. Digital tools can help impact all four moments.

This automation of the digital path to purchase necessitates a real-time database of purchase behavior that combines point-of-sale data, loyalty information, and weather and store information; the ability to listen to consumer sentiment (ratings and reviews, Facebook posts, blog posts, etc.) requires the mining of unstructured text.

Today, only 9% of CPG companies have a cross-functional team to build the processes needed to yield insights from structured and unstructured data. We find that most efforts are bogged down by traditional customer relationship management solutions and a narrow definition of supply chain management.

The clash of processes and technologies is a new state of normal. New roadmaps are not evolutionary based on best practices. Instead, they challenge current paradigms. Traditional enterprise flows are inside-out based on historic transactions; digital business flows are real-time and outside-in. New processes start with the channel and translate actual sales outside-in with low latency. These shifts are shown in Figure 2. ●

FIGURE 2: Paradigm Shifts in Digital Transformation

TRADITIONAL THINKING	SHIFTS DRIVING DX
Inside-out processes	Outside-in processes
Focus on efficient organizational silos	Design of value networks
Use of transactional data with a focus on history <ul style="list-style-type: none"> • Batch processes • ERP architectures • Linear optimization 	Use of multiple data forms: <ul style="list-style-type: none"> • Design of processes to enable data to move at multiple speeds • Use of unstructured and structured data • Open source
Focus on response	Shifts to sensing to drive an intelligent response
Process standardization	Autonomous and localized processes

Source: Supply Chain Insights LLC

Getting Personal with Consumers

DIGITAL TOOLS MAKE THE PROMISE OF PERSONALIZED ENGAGEMENT REAL — AND REQUIRED

BY PETER BREEN

It's quite possible that no consumer goods company gets more personal with its consumers than Nestlé Purina.

Last spring, the Just Right by Purina brand added new capabilities to justrightpetfood.com, which since 2014 has let dog owners answer questions (age, activity level, breed, body condition) to create a personalized food formula for their loved ones (via proprietary algorithms and human experts).

To get even more “sophisticated” with the recommendations, Purina began gathering information about the animals' stool color. “Pet owners ... can learn a lot by doing a quick evaluation” before disposing of the poop, the brand explained at the time.

Brands are learning a lot about their consumers these days, thanks to a plethora of digital tools that make both interacting with them and analyzing the resulting data about them a lot easier than it was even a few years ago.

Marketing has been the most common first “fix” on the digital journey for most CGs. In *CGT's* survey, 66% of companies said they've already initiated digital transformation in the marketing space — the only functional area tackled by more than half of respondents. Supply chain came in second at 49% (see Figure 8 on page 23). Consumer engagement is also a priority at more companies (65%) than any other enterprise function (see Figure 12 on page 25).

The most overwhelming reason for this trend is pretty simple: consumers forced the issue. Once their target audiences began adopting websites, search engines, social media and ultimately mobile tools as key parts of their lifestyles — especially after they also began shopping and buying online — product manufacturers had no choice but to follow.

That's also likely the biggest reason why engagement-enhancing tools such as cloud-based architecture, mobile apps and artificial intelligence/machine learning were identified as the technologies most critical to organizational transformation (see Figure 11 on page 24).

“To win in this reality, you need to always start from the consumer under-

standing,” Nestlé Waters North America chief marketing officer (and *CGT's* 2016 “CMO of the Year”) Antonio Sciuto told *Ad Age* recently. “Beyond that, you will need technology. It is the key to really make things happen.”

The ultimate goal is a deeper understanding of consumers that will let CGs customize not only marketing messages and promotional offers, but also product assortment and even the products themselves.

Getting all the way there requires companies to work back from the consumer-facing engagement tools they've employed for years to implement technologies and systems that will help them collect, analyze and institutionalize the data they're collecting. It requires a consumer-centric mindset throughout the enterprise that will be fueled in large part by marketing-driven insights.

To wit: A mobile app that lets brands send relevant offers to consumers is a very nice marketing tool; an AI-enabled app like the Olay Skin Advisor, which uses selfies and survey answers to conduct skin analyses and make relevant product recommendations — then aggregates the incoming data to help Procter & Gamble's future brand planning — has become critical to success.

Once marketing is done with the data, the next step “backward” is to connect the rest of the supply chain to provide insights to customer marketing, demand planning, product development and a host of other organizational needs (as this report covers in other sections).

MarTech vs. Marketing

An estimated 27% of marketing budgets are now spent on technology — which is more than the 22% devoted to paid media, according to a recent Gartner study.

That signals a major shift in industry dynamics that is disrupting the status quo: Nestlé Waters, for instance, has been using the Salesforce Marketing Cloud to bring social media tracking, community management and con-



sumer market research in-house rather than farming the work out to traditional agencies, Sciuto told *Ad Age*.

Traditional agencies are responding: Momentum Worldwide in September unveiled a partnership with IBM Watson to launch Shpr Solutions, a proprietary platform offering “predictive and real-time analytics” to inform shopper marketing programs.

An estimated **27%** of marketing budgets are now spent on technology — more than the **22%** devoted to paid media, according to Gartner.



One future watchout will be to avoid the potential pitfall of relying too much on technology, automating so much of the engagement that personalization becomes far too impersonal. Real brand loyalty won't be built on programmatic ad campaigns and relentless chatbots.

Meanwhile, consumer goods companies must also plan for “conversational commerce” in which consumers increasingly rely on their IoT-enabled devices to make some of the purchase decisions. “What will it be like when we have to market to the personal assistant?” SapientRazorfish's David Hewitt asked at an industry conference last spring.

Perhaps only Alexa knows the answer to that one. ●

Top Tools

ARTIFICIAL INTELLIGENCE

“We rely heavily on data to inform every aspect of our business, from product development to the digital experience,” says Dave King, chief technology officer at Madison Reed, a 3-year-old “online hair color company” whose products are free of the chemical additives typical in the category.

Digital consumer engagement centers on “Madi,” a proprietary chatbot that gives color consultations just as a human would do in a salon. Consumers submit selfies of their face and hair, answer a few questions and get a color recommendation. In 2017, the technology became a key component of a new in-store experience at retailer Ulta.

CLOUD-BASED ARCHITECTURE

In mid-2016, Nestlé Waters North America unveiled the Consumer Engagement Center, a digital learning lab housed in the New York City offices of marketing-solution partner Salesforce.

At the “CEC,” Nestlé tracks the brand and topical conversations taking place in the social world and identifies relevant ways to contribute to the dialogue.

“Digital marketing is no longer simply about reach and frequency. Marketing is evolving into personalized consumer experiences, and our mission in this new reality is to better understand consumer needs, behaviors and trends,” explained Nestlé Waters chief marketing officer Antonio Sciuto. “We are moving beyond building databases to cultivating communities.”

MOBILE APPS

Jenn-Air understands that consumer engagement no longer ends at the purchase.

The appliance maker's ovens are equipped with IoT-enabled connectivity to an app that lets users check “doneness” and even start the cooking process remotely. They're also compatible with Nest thermostats and boast a “Culinary Center” that uses advanced algorithms to determine ideal cooking times.

In early 2017, the app was upgraded to add voice-command capabilities through Amazon Alexa. “We're getting closer to achieving frictionless, barrier-free cooking and entertaining,” Jenn-Air marketing director Brian Maynard boasted.

CONVERSATIONAL COMMERCE

HarperCollins Christian Publishing joined the ranks of brands launching voice-controlled “Skills” for Alexa with “Devotionals,” an app presenting a daily audio clip culled from the works of the book imprint's author stable.

“This is an unprecedented opportunity to gain new exposure and awareness around our authors' great content . . . with a simple voice command,” said Sally Hofmann, HarperCollins' senior vice president of direct-to-consumer sales and marketing.

Users who are especially inspired by particular clips can simply tell the transactionally capable Alexa to add the related books to their Amazon.com shopping carts.

NPDI: Enhancing Products, Improving Process

BY PETER BREEN

Whirlpool Corp. doesn't consider itself an appliance manufacturer anymore. Instead, the company that once merely made refrigerators, ovens, washers and dryers is now an "experience company" that's "redefining what a product is," said Rob Sundy, Whirlpool's senior director of brand & marketing services, while speaking at a recent industry conference.

Whirlpool is building itself a presence in the smart home of the future through services like Scan-to-Cook, which lets consumers use an app to scan packaging barcodes and send heating instructions to their ovens.

That strategic shift in Whirlpool's business model neatly illustrates the ways in which digital tools are transforming traditional methods of new product development: changing both the functionality of the products being offered and the processes through which companies identify new opportunities.

In short, the products themselves have become part of a new innovation pipeline that is getting faster, more efficient, more transparent and, hopefully, substantially more effective than traditional processes.

With much of the home appliance category undertaking Whirlpool-style initiatives, it's kind of surprising that only 10% of consumer goods companies are working on IoT-based product improvements or enhancements, according to the Tech Trends survey (see Figure 12 on page 25).

What's even more surprising is that new product development is only a priority area for digital transformation at one-third of consumer goods companies, according to the survey (see Figure 9 on page 23). Considering the numerous ways in which digital tools can not only improve product ideation and innovation but also development, introduction and sales processes, it would seem to be more critical in a period of intensified competition and full-bore market disruption.

Among the many potential areas of improvement:

Better identification of consumer need: Consumer goods companies have access to boatloads of data through new digital tools (sentiment analysis, social listening, crowdsourcing) that can make research and development better informed and, theoretically at least, more accurate.

A number of CGs go even further by using direct-to-consumer

e-commerce channels to literally test sales potential in the marketplace before committing to any substantial rollout plan. Some companies track activity on their "create your own" product personalization websites to identify flavors and formulas that might have mass appeal.

More realistic, and less risky, sales goals: As CGs continue to move away from a singular focus on mass production and high-volume distribution, "You no longer need 100% ACV" distribution to declare success, said Susan Viamari, vice president of thought leadership at IRI. The CPG research giant has seen a trend toward smaller launches targeted to specific audiences.

More efficient internal management:

Digital platforms for sharing data and managing projects can provide greater cross-functional visibility as well as improve workflow and speed to market. Procter & Gamble this year implemented a new PLM platform (from Dassault Systèmes) that will connect 18,000 employees across 65 brands and 80 countries to improve and align research and development, product supply, quality and other disciplines.

Easier retailer sell-in: With more realistic, reliable sales forecasts — and maybe even some actual sales data — selling into key retailers can be a much easier task.

Digital tools can even streamline the sell-in process itself. Internet-based services like ItemMaster and RangeMe connect sellers to retail buyers; the latter has a database of 210,000 active products from 65,000 suppliers.

And then, as noted earlier, products themselves have become an integral part of the innovation pipeline. Consumers wearing Under Armour's "Connected Fitness" apparel or using its apps are "giving us data that will help us learn more about them [and] ultimately help us sell more shirts and shoes," CEO Kevin Plank told analysts earlier this year.

The ultimate goal is to improve a success rate that can be as low as 30%, depending on the product category. And there has never been a more critical time for improvement, with IDC forecasting that new products will drive increasingly higher levels of industry growth and smaller "lateral" manufacturers will steal 10 to 15 more share points from traditional brands over the next five years. ●



THE EVOLUTION OF RETAIL ENVIRONMENTS, PART ONE



Photos by: Mark Steele Photography, Columbus, Ohio

Retail is Dead - Long Live Retail!

*Now is the time to decide
what the future looks like
for brick-and-mortar stores.*

By Michael Applebaum

Not long ago, it would have been heretical to suggest that physical stores could go the way of the dinosaur. But over the last 18 months, an endless wave of negative news coverage of the so-called “retail apocalypse” has created the impression that any retail business that relies more on concrete than clicks for its sales is doomed to irrelevance, if not extinction. A Business Insider story late last year summed up the

prevailing wisdom: “Brick-and-mortar retailers are caught on the wrong side of the digital shift in retail, with many stuck in a dangerous cycle of falling foot traffic, declining comparable-store sales and increasing store closures. Over 8,600 retail stores could close this year in the U.S. [an estimated 7,795 closed, per UBS], more than the previous two years combined.”

Such blanket statements, while true, paint an incomplete picture of the state of the industry. Yes, this country has too many stores. There are 22 billion square feet of retail in the U.S., or about 68 square feet for every man, woman and child. (The next closest country is England, with three square feet per person.) But there’s another side to the story. First, let’s try to separate fact from fiction:

- The vast majority of retail sales — more than 90%, according to some estimates — still come from brick-and-mortar stores. Forrester predicts that online sales will account for 17% of all U.S. retail sales by 2022, up from approximately 13% in 2017.
- Research shows that consumers trust the experience of shopping at physical merchants more than on e-commerce sites, and that brick-and-mortar stores retain some inherent advantages. For instance, a 2017 research report by Frost and Sullivan found that a shopper's ability to handle and evaluate a product with immediacy often outweighs a lower price found online.
- Success at retail is not about square footage, but what you do with it. Even in the most challenged sectors, there are emerging success stories. For example, a *Fortune* article last year profiled how premium malls in up-and-coming areas across the U.S. are renewing themselves with better restaurants, entertainment and activities, employing open-air formats and a mix of upscale and traditional retailers to attract customers with more disposable income.

While the above points illustrate a simple truth — that the store still matters — retailers can take only so much solace from this reality. Today's shoppers have too many options, and their expectations for a flawless experience across all purchase and distribution channels are only getting higher. Increasingly, consumers are being conditioned by the ease of online shopping to raise not only their standards and expectations but also their willingness to abort the shopping mission at any significant point of friction. Of course, such defections are not limited to brick-and-mortar stores. Typical online shopping cart abandonment rates of anywhere from 55% to 80% mean that e-commerce players are also leaving millions of dollars on the table.

In light of these trends, industry experts are becoming increasingly vocal about the need to start rethinking the very definition of a store and all that it entails.

Next Generation of Retail

Recognizing that old models are no longer working and aware of the promise that lies in the next generation of physical stores,

FCB/RED and Chute Gerdeman (the design firm FCB/RED acquired last August) are calling for a wholesale change in the evolution of retail store environments. Namely, they are urging brands and retailers to rethink their strategies for how to maximize the physical store space and engage with shoppers in more sophisticated, relevant and exciting new ways.

"We are overdue for a change in physical retail, and everyone in the industry needs to be thinking about what that future looks like," says Tina Manikas, president of FCB/RED. "We all know that the old models of stores are holding us back. Just ask a Millennial. They still like physical retail in terms of touch but they do most of their searching, buying and information gathering somewhere else. New and compelling elements are needed to create successful environments now and into the future."

Manikas and her colleagues envision a time when marketers and customers alike view shopping in physical stores as complementary to online shopping, not as competitive threats to one another or mutually exclusive activities. And they have some bold predictions about what stores will look like in the years to come.

"We believe that physical retail will become a robust extension of online delivery and subscription buying," says Curt Munk, senior vice president of strategy at FCB/RED. "Physical stores must tap into the empathetic technologies for shopping that we'll all be using in our lives and integrate them into one holistic experience. You can't abandon the things you do at home when you go into a store. It must become part of that integrated system because the way we shop is becoming more and more a part of the way we live."

In the meantime, traditional retail environments increasingly seem static and unresponsive to demands for a more satisfying customer experience. That is why major retailers including Kroger, Starbucks, Walmart and Target are making big bets on new store formats and designs. Target, for example, is investing billions of dollars to overhaul more than half of its approximately 1,800 U.S. chain stores. Its prototype store in Houston has two distinct entrances (one with a Starbucks and an area with exclusive brands and seasonal items, and another leading to a food market) as



Three examples of ways that stores will survive and thrive include offering shoppers seamless, connected interactions with products/services (like Verizon, above), giving customers more pleasurable experiences and reasons to stay in/visit the store (Whole Foods, right), and designing layouts in a way that's more welcoming and organized based on how their customers think, live and shop (Exchange, below).



well as a dedicated curbside grocery pickup area. Inside features include clearly delineated departments with individual flooring; curved walkways leading to featured displays at the middle of the store; lower shelves for easier access; and large windows to let in more natural light.

Target's dual entrance format - or a similar design that addresses different needs or motivations for shopping in any given circumstance - could be duplicated across many retail sectors, says Mindi Trank, vice president of strategy at Chute Gerdeman. Rather than cater to different demographic profiles or types of shoppers, Target's redesign addresses two distinct shopper need states: speed and inspiration, Trank argues. "Some shoppers want to get in and out quickly; others would like to explore and discover," she says. "It's a smart way of keeping pace, faster or slower, with a more diverse set of consumer needs and behaviors."



Photos by: Mark Steele Photography, Columbus, Ohio

Staying ‘Alive’

For those on the front lines of the changing face of retail, today’s marketplace includes many forward-thinking concepts and ideas. Chute Gerdeman is a proponent of creating a store environment that is fluid, responsive and “alive.” It uses terms like “contextually relevant” to describe how some retailers — including the ever-changing Story outlet in New York City or the 2,500-square-foot pop-up store Debut in Minneapolis’ Mall of America — constantly reshuffle their

assortment, layout and interior design to suit the current ethos of their patrons. Elsewhere, apparel retailers like Urban Outfitters have successfully employed mixed-unit, multi-purpose spaces to create diversified offerings that encourage repeat visits.

For Jay Highland, chief creative officer at Chute Gerdeman, it all comes down to keeping shoppers interested and engaged. “We need to put the theater back into retail,” he says.

One way to do that is to rethink the role of innovation and technology within a retail environment. Much of the current buzz is around adding store features that provide some new convenience or strike the shopper’s fancy — things like using artificial intelligence tools including chatbots to improve communication between employees and customers, or virtual-reality enabled devices to create a more interactive and three-dimensional experience between customers and products. “These elements on their own do not make a store,” cautions Munk.

Instead, the agency advocates using technology to learn more about consumers and to build a platform from which to launch more meaningful and personalized “data-enhanced” experiences. “Technology will exist to enhance the shopper experience, but the best use of tech is about increased ease, inspiration and personalization,” says Munk. “It isn’t really about the tech, but about the results of tech.” He argues that all operators can borrow cues from fashion retailers like Montreal-based menswear brand Frank & Oak and women’s fashion brand Revolve, both of which are combining high-tech features with data analytics to engage with customers in potentially transformative ways.

Amazon too, of course, is now bringing its powerhouse data machine and vast analytics expertise into the brick-and-mortar space. At an Amazon-owned bookstore in the Wrigleyville neighborhood of Chicago, books are set on shelves with covers facing outward, not only for easier viewing but also so that customers can easily scan a bar code that delivers reviews and other information to their smartphones. Dedicated areas are given to books on displays arranged by star ratings, while the overall layout features generous open space, modern finishes

FIVE RETAIL PREDICTIONS

1 Brands without experiences will fade. Research shows that the vast majority of consumers will pay more for a better physical retail experience and that products and services are no longer enough to create a meaningful differentiation. Staging experiences that create sharable moments and spaces is the only way to establish premium offering.

2 Stores will find new ways to become more tangible. The urge to touch and feel a product before making a purchase will keep shoppers heading to stores – even as the online experience gets better. Whether it's in food, fashion or home repair, stores that successfully execute tactile-driven strategies through trial, demos, classes and videos will have the edge.

3 “Phygital” will dominate. Technology will grow, but largely invisibly – through increased use of personal digital assistants, for example. In two years, half of all searches will be conducted by a voice-enabled device, per comScore, and voice commerce in the U.S. will explode over 200% in the next five years to become a \$40 billion industry. By 2027, 92% of front-line sales people can be replaced by a machine, per an Oxford University study.

4 Risks will be rewarded. Retailers have to live up to the “guest” promise: Make the shopper feel happy to be in the store. Think less about conversion and more about creating brand converts. Use innovative merchandising solutions to tell a story, create heroes and rethink category norms. In this way the idea of physical retail will begin to morph into a more liberal definition of what a store is, and what it can do in our lives.

5 Stores will become media. Call it Showrooming 2.0. Retail will ultimately become a marketing function, not a sales function, predicts author Doug Stephens. The power of a physical experience to create a lasting brand impression has almost no peer in traditional media, and that experience is valuable to brands. In addition, Amazon and possibly other tech giants will continue to expand into brick-and-mortar retail, creating robust extensions of their online delivery/subscription services and forcing traditional retailers to come up with more impactful ways of using the physical store space.

and an Echo Dot station. Going forward, Amazon may well bring a similar kind of data-driven merchandising approach to its Whole Foods stores, where the activation to this point has concentrated mainly on promoting lower prices.

Marketers can also look to alternative channels for inspiration. At the new Delta terminal at New York's LaGuardia airport, large sections are devoted to high-quality QSR-style

commissaries with self-checkout kiosks for faster service, while chic restaurants feature high-tech conveniences like individual iPad stations for general browsing, menu selection and ordering. “These kinds of innovations not only raise the bar of what consumers expect when they travel, but it bleeds over into their broader set of standards and expectations for all retail-related experiences,” observes Highland.

Getting Smaller, | Going Local

From big-box retailers to supermarket chains, retailers are accelerating the trend of branching out into new store formats. Kroger's Fresh Eats MKT in Ohio and H-E-B's Central Markets in Texas are two noteworthy examples of the shift toward smaller, localized and/or specialty formats with personalized assortments and services built around individual community preferences. Many of these bodega-inspired stores are located in urban or exurban areas and offer a level of convenience and flexibility that cookie-cutter superstores cannot match. "The days of dropping a 150,000-square-foot box into a suburb are waning," says Highland. "Retailers are reimagining their assortments based on smaller footprints and are asking themselves: How do we show up where our shoppers are? They've begun to accept the idea that it is not necessary to make every item available under one roof."

By no means are these simple solutions, however. Retailers face a variety of challenges in taking on new store formats. These include:

- **Assortment.** Generally speaking, less is more. Shoppers do better with fewer choices that are curated for them. They tend to buy more and are happier overall with the shopping experience.
- **Diversification.** In addition to determining the ideal size and format for a given location, a retailer must decide whether to offer some sort of a service, educational component or entertainment feature that helps drive traffic. Walgreens, for example, is piloting a new optical products and services section in its Chicago area stores in an attempt to expand the retailer's role in shoppers' lives.
- **Merchandising.** Creating a curated assortment in the context of a truly local experience requires an agile approach to merchandising — one that is informed by data and insights into customer preferences — to keep shelves properly stocked. Smaller and more curated stores have to be managed better because a single out-of-stock is a higher percentage of the total SKU assortment in smaller stores.

Within existing formats, retailers are competing harder for younger customers by prioritizing different parts of the store. For example, recognizing that Millennials tend to shop the perimeter of grocery stores, many retailers are placing greater emphasis on sections like fresh foods, seasonal products and beer and wine. "This creates a vacuum in the center-store and an opportunity to call out key CPG categories like beauty, baby and pet food in which to create more impactful branded experiences," notes Trank. For instance, it is common now for large chain retailers to feature enhanced beauty/personal care sections with dedicated customer service personnel and more prominent marketing and promotional campaigns by individual brands.

These kinds of advancements are table stakes in an industry where unprecedented levels of competition and channel blurring are allowing only the strongest retailers to survive. With now even 7-Eleven offering "restaurant quality" meals, there's no limit to how far any given retailer can encroach into another's territory. "What we're seeing now all over the retail sphere is the blurring of lines between selling and experiencing," says Munk. "The old brands don't have a lock on consumers, and the new brands are fighting for both perceptual and habitual space wherever they can get it. It is going to continue to be terrifying for the brands and retailers that resist change, and very exciting to be a consumer and shopper, in the years to come."

Against the drumbeat of negative news coverage, Munk and his colleagues remain optimistic about the future of brick-and-mortar retail. "Physical retailers are still very important to completing the customer experience," says Manikas. "Stores provide a level of service and offer a sense of community, exploration and discovery that — at least to this point — cannot be replicated online." 

IMAGINING *Retail's Future*

ONE ON ONE WITH DANIEL ALEGRE, PRESIDENT OF RETAIL

AND SHOPPING AT GOOGLE. > By Mike Troy



Conversational commerce is the next big thing in retail and those who require proof need look no further than Amazon. It has gone all in on a strategy to penetrate households with devices such as Echo that enable users to communicate with its Alexa voice assistant and perform all manner of tasks—including shopping. Alexa's life-simplifying pleasures go well beyond shopping and can be habit-forming. That's what Amazon is counting on, ingraining itself deeper and deeper into the lives of Americans whose children will grow up as the first Alexa-native generation. That's a scary scenario for retailers looking five to 10 years into the future at the prospect of ubiquitous conversational commerce, or as some call it, voice shopping.

While no retailer individually, not even Walmart, is equipped to offer a competitive response to the potent combination of millions of Amazon Alexa devices supported by a steadily expanding network of world class fulfillment centers, all is not lost. Far from it. Google has entered the conversational space in a big way with its Google Home device, an expanding collection of smart displays and partnership with other manufacturers to integrate Google Assistant voice capabilities into their products. Google is moving fast and creating a unique value proposition a growing number of retailers find compelling.

"We have a host of things that are very valuable to the retail and shopping sector and I'm pulling it together so that our partners have a one Google approach and view

▲ Daniel Alegre serves as President of Retail and Shopping at Google, a role that entails crafting the company's overall strategy and leveraging Google assets to aid retailers' digital transformation.

of what we can bring to the sector,” said Daniel Alegre, President of Retail and Shopping with Google. “I’m responsible for crafting the overall retail and shopping approach for the company. We are enabling for the retailer a control over their experience and bringing them much closer to the consumer,”

That’s a tall order, but as Alegre notes, Google has its own universe of very relevant assets when it comes to things like search, images, YouTube, product listing ads and the Google Express delivery service. And like Amazon, Google is a company that builds for the future and scale.

Walmart and Target were among the first to buy into the Google retail vision and the potential of voice in a big way last fall. In September, Walmart integrated with Google to make several hundred thousand items available for voice shopping via the Google assistant. In 2018, the company plans to turn on the ability to order groceries via the Google assistant for pick up at store, further eliminating friction from the process of list-making. Target also announced it expanded its relationship with Google so customers could access its assortment through voice command and also receive the 5% price reduction if they pay with one of Target’s REDcard products. In 2018, Target has vowed to work with Google to offer store pick up within a two hour window and to bring other innovations to market.

At the end of last year, there were a total of about 50 merchants directly integrated with Google and accessible via the Google Assistant. While that may not seem like a large number, there were none as recently as 2013 and Google introduced its Home device in 2016 and voice shopping in 2016. However, it wasn’t until last year, and during the holidays in particular, that Google made an Amazon-like push to sell devices. It had plenty of help in that effort from merchants active on the platform who make a margin on each sale but also have a vested interest in seeing Google Home reach a penetration rate equal to or greater than Amazon’s Alexa.

“We purposely kept the number of merchants very small as we expanded nationally, but we expect to have more come on board. I can’t predict what that number will be in a year,” Alegre said. “We do know that we are going to continue to provide a deeper, richer experience with the retailers we have and then expand it as we gain comfort with the customer experience.”

Retailers also need to have a comfort level with Google when it comes to the sharing of their information and how customer data is used. The prospect of Google joining Amazon as a second enemy rather than a valued ally is disconcerting to retailers.

“We make it crystal clear that retailer X will not benefit from retailer Y’s information that resides with Google. We realize that retailer purchase information is one of their core assets to be guarded as a competitive advantage and for them to share it with us is something we don’t take lightly.”

THE GOOGLE WAY

Experience is key with voice shopping and interacting with

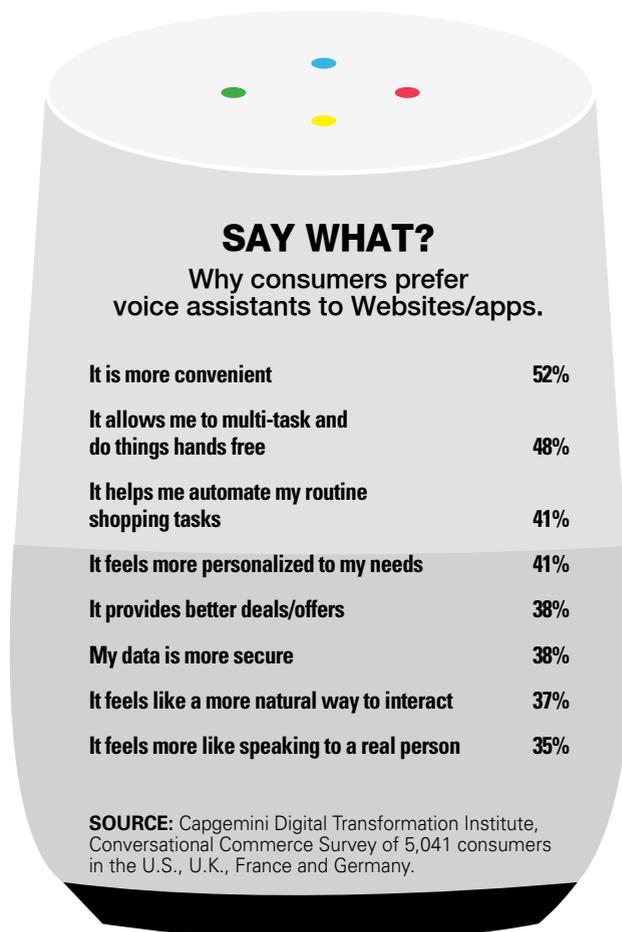
voice assistants, but Alegre defines the term differently than operators of physical spaces who tend to think of experience in sensory terms related to lighting, flooring, signing, merchandise presentation and dozens of other touchpoints. For Alegre, experience is the emotional reaction a Google user has to a search query, how well their voice is recognized or the simplicity of interacting with the Google Assistant. It can be magical or frustrating.

“If you really want to make voice search inquires powerful you can’t really make mistakes,” Alegre said.

A decade ago when most search was conducted on a desktop, Google could be forgiven for returning off target responses because there was ample real estate on large screens to have the right answer be the fourth of fifth answer. Accuracy had to improve with the shift to mobile and much smaller screen sizes. With voice, the accuracy bar has been raised so high there is little margin for error and it declines daily as consumers expectations increase.

“If the wrong answer, product or ad is returned to the user the experience becomes so poor the device ends up being used to just play music or present recipes,” Alegre said.

Accuracy begins with the ability to process natural language, which is one area where Google arguably has an advantage over



Amazon if for no other reason than search is Google's core business and it has been at the search and voice game a long time. The billions of dollars the company invests annually in artificial intelligence and machine learning means the Google Assistant can distinguish between English speakers with regional accents, different tones of Mandarin or multiple Indian dialects, according to Alegre. It can even understand the very poor Mandarin Alegre said he speaks in addition to Spanish, French, German and some Russian.

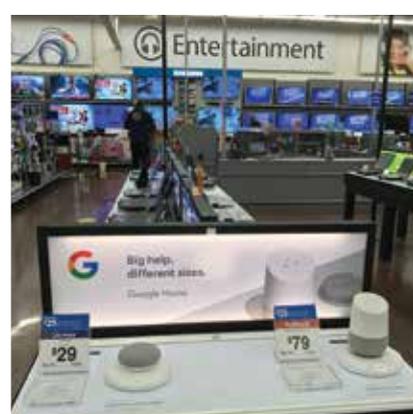
That understanding is at the heart of the future growth of conversational commerce and some of the most viable early uses cases are viewed as food and consumable product categories. That's because many purchases at a supermarket, drug store, dollar store or mass market retailer are transactional in nature and therefore prone to be disrupted by alternative and more convenient methods.

"When a loyal Walmart customer links their account with Google, at that point we are porting their past purchases with Walmart onto the Google experience. When they say, 'okay Google, buy me a tube of toothpaste,' the ideal is it already knows what you are asking for and it will ask if you want to re-order a prior purchase," Alegre said.

If a Google user wants to see other options from different retailers, that desire can be communicated and conceivably a customer could view options from Target or other retailers who have integrated with Google.

"Voice and voice capabilities are extraordinarily powerful for transactional experiences where a consumer knows exactly what they are looking for and tells Google to get it for me," Alegre said.

The more challenging voice shopping experience, for the time being anyway, involves higher consideration purchase categories or those that have a fashion element. For example, in situations where a consumer needs guidance and information, wants to envision how a product would look in their home or help with assembly, leveraging voice capabilities is a more elaborate process. In some of those cases, Google can tap into retailer,



Google Home was heavily promoted during the 2017 holiday season, with major retailers such as Best Buy (above left), Walmart (left) and Costco (above) among those prominently featuring the device.

supplier or user-generated content on YouTube to provide answers, but it's not as easy as a reorder transaction, which is why companies such as Walmart and Target moved aggressively to partner with Google.

A DIFFERENT BEAT

While Daniel Alegre is helping invent the future of shopping at Google, the 14 year Google veteran's career began in an unlikely fashion. The native of Mexico migrated to Canada, attended Princeton and later earned a law degree and an MBA at Harvard. Before putting those credentials to work, he returned to Mexico when an opportunity arose to start an FM radio station. As an aspiring musician who once wanted to be a drummer, he soon learned the new radio gig came with some surprises.

"I arrived at a building that had no equipment and no antenna, only a license. I had been a drummer, but that was all I knew about the music business," Alegre said. "I had two weeks figure things out, hire an engineer, get the antenna up and running, launch the radio station and understand how you sell. I later learned what it means to be there for the community during a hurricane when I was on the air for 48 hours straight."

The innovation skills he applied to that role are proving useful now as Google and its retail partners are working on an issue of immense proportions and Alegre is again, "figuring it out." One of the first things he figured out is that Google's growth beyond core search had created organizational silos that made working with the company challenging. It had reached the point where whether a partner was large or small they could be interacting

with as many as 10 different touchpoints. That wasn't going to work if Google wanted to bring more retailers into the fold and increase the value of the Google Assistant.

"The one consistent ask that we were getting from CEOs at companies was, 'can we have a relationship partner that can help us makes sense of how Google can really fit for us,'" Alegre said, referring to his role and the retail and shopping team he leads. "Retail and Shopping is an area that obviously is at an inflection point and one where we have had partners coming to us and saying, 'we need your help transforming in the digital space.'"

That's what Google is working hard and investing billions to accomplish. And Alegre would be the first to admit it is a work in progress because that is the Google way.

"The reality is there is no master plan at Google. At heart, we are a start-up that has a lot of strengths and assets, but we are trying to solve really big problems for the greater good. That means you have to take certain situations and approach them like a start-up and say, 'let's figure it out.'"

Figuring out voice shopping is the type of really big problem that Google founders Larry Page and Sergey Brin like to tackle, according to Alegre. They want to bring 10X change to solving a problem rather than an incremental tweak. They start with what is a really difficult problem to solve and how can technology be brought to bear to develop a solution, is how Alegre explains the thought



Amazon's Alexa-enabled devices were already the company's top selling items and with the acquisition of Whole Foods it has hundreds of new physical distribution points, such as this location in New Jersey.

process and the approach Google is taking with the Google Assistant, Google Home and integrations with a growing roster of partners.

"We feel we need to be part of the solution for retailers. We want them to be successful because they have been long term partners of ours," Alegre said.

There is something in it for Google too, of course. The company generates revenues by selling devices and it earns a commission on retail sales it helps facilitate. Alegre doesn't share specifics, but the amount isn't large or he wouldn't be getting asked, "why did you launch this if there isn't really any money involved?" His response is like that of so many technology entrepreneurs in Silicon Valley who apply a philosophy of building something useful and figuring out later where the money is.

"If you focus on innovation and you can bring value the rest will figure itself out," Alegre said.

As far as retailers are concerned, figuring out e-commerce and the conversational aspect of it is something they need to happen soon rather than later. Amazon isn't slowing down and just like with other things it has done, such as creating an expectation that shipping online orders should be free and not take more than two days, shoppers will want to communicate with other retailers the same way they do with Alexa or they won't bother.

Somewhat ironically, one of Google's biggest partners is Amazon and it also has a deep relationship with Apple, which is expected to launch its own conversation device called Homepod this spring. Amazon distributes apps through the Google Play store and Google syndicates ads to Amazon.

"In the space we are in, those that you would consider competitors with Google are also likely to be partners," Alegre said. "We've had a more than a decade partnership with Amazon and it is a very positive relationship but at the same time there areas where we are going to compete and both companies are aware of that situation."

However, unlike Amazon, which has an "us against them" worldview, Google is an open platform when it comes to surfacing information in queries or working with retailers to develop and grow conversational commerce. If it is successful with the latter, it is possible to envision a scenario in which a federation of retailers have a direct connection with Google, access to the Assistant is pervasive via the Home device or other means, more shoppers discover the magic of voice shopping and use it with greater regularity. There is a lot of work to be done to execute such a vision with 2018 setting up as a pivotal year for Google and its partners to make further inroads with shoppers and possibly turn the tide against Amazon, or at a minimum slow its market share gains. **RL**



THE DTC DILEMMA

Despite valid reluctance,
direct to consumer
sales are part of the
CPG industry's future

*Neil Ackerman is helping
Mondelēz International
take the right steps into
its e-commerce future*

Last December, Mondelez International unveiled gifts.oreo.com, a seasonal website that let consumers order festive gift tins of White Fudge Covered Oreo cookies for the holidays.

The limited-time initiative, which “went from concept to consumer in 45 days,” marked the first time that Mondelēz “managed 100% of the direct-to-consumer supply chain, from the bakery to the consumer,” explains Neil Ackerman, global director of integrated supply chain, e-commerce & product technology innovation. “We also created a unique proposition that generated great excitement in the marketplace.”

The effort “gave us some key learnings while enabling us to capture a differentiated, incremental online occasion,” said Ackerman. Those learnings will be critical as Mondelēz plots its future: The company has publicly pledged to become “an industry-leading e-snacks business” by achieving \$1 billion in total e-commerce sales by 2020.

While Mondelēz will continue conducting similar programs, it isn’t expecting DTC activity to provide much of that lofty sales goal. And it doesn’t expect to turn itself into a full-blown direct-fulfillment company any time soon. Still, Ackerman promises that Mondelēz will follow a strategy that every consumer goods company needs to heed: “At the end of the day, we’re going to be where consumers want us to be.”

Late to the Party — Again?

While there are numerous similar examples of consumer packaged goods companies testing the DTC waters, there’s still plenty of industry skepticism about the overall need and few manufacturers who’ve embraced it as a critical strategy. In *CGT’s* “2016 Sales and Marketing Report,” only 18% of CGs said that supporting omnichannel fulfillment via DTC (or postponement) would be a business priority over the next few years.

“It’s been a slow burn. Everyone knows they need to be thinking about it, but it’s still a relatively small business,” says Simon Ellis, program vice president for supply

chain at IDC Manufacturing Insights. “It’s still more talk than walk — thinking about how to do it rather than doing it.”

To be clear, ambivalence about DTC is only an issue in the CPG space. Most manufacturers of apparel, electronics and other product categories have already acknowledged the need to go direct and are restructuring accordingly. In a survey conducted last winter by *Shopper Marketing*, 75% of non-CPG manufacturers said they’re already selling directly — versus just 18% of CPG respondents.

“I don’t see a mass move — call it 20% or 30% of the market — to direct-to-consumer consumption,” Procter & Gamble chief financial officer Jon Moeller told analysts last October. “How many people do you really know that want to satisfy their household products shopping needs ... by going to 40 different websites with 40 different passwords and 40 different packages that arrive at 40 different times?”

That’s a valid argument, to be sure. But there was a time not too long ago when the widespread assertion, “Consumers will never buy groceries online,” also had plenty of merit. CPGs don’t necessarily want to make a similar mistake here — because the assumption that consumers will never want to order items like, say, razors or granola directly from the manufacturer is already being disproven by the likes of, respectively, Harry’s, Inc., and Kellogg Co.’s Bear Naked.

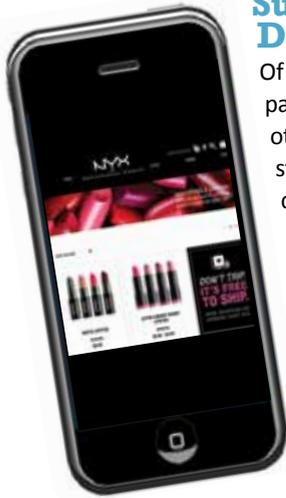
100%

Oreo managed its entire holiday program — bakery to consumer — internally.



“ You have to look at the supply chain as a business driver, not an operational cost. ”

— Andrea Atwell, L'Oréal



Supply, Not Demand

Of course, it's not the direct selling part that's the issue. P&G, among others, has long operated online storefronts that sold directly to consumers, but the orders are fulfilled by a retailer partner (usually Amazon or Walmart).

The sticking point, of course, is the logistics of direct fulfillment, the need to reconfigure existing supply chains to make the shipment of “eaches” to individual consumers financially sustainable. “P&G

and Unilever probably ship 75% of their orders in full-pallet quantities,” notes IDC's Ellis. “Going direct will require a fundamental reconfiguring of the supply chain.”

“Supply chain costs are a significant portion of the P&L, no question about it,” says Andrea Atwell, vice president, direct-to-consumer e-commerce for L'Oréal USA, whose upscale Luxe division has sold DTC for about 10 years. “But you have to look at the supply chain as a business driver, not as an operational cost.”

The Luxe brands presented a more obvious opportunity for DTC because they have higher price points and more limited retail distribution. (“If people have to drive 50 miles to buy your product, it's more logical to let them buy it online,” says Atwell, who ran Luxe's U.S. supply chain before taking on her new role last September.) L'Oréal now has a solid base of learning and capabilities that can be applied to its mass market brands (starting with 2014 acquisitions Nyx and Carol's Daughter).

Although the Oreo program was relatively small, Mondelez still learned a few tricks that look to be scalable, according to Ackerman. “We had to build one muscle well: manage low-order quantities in a profitable way,” and did so in part by upgrading the order system and increasing the picking process to

twice daily, he says.

Atwell suggests that the issue is as much about changing the organizational mindset as it revamping operations. In the traditional supply chain model, “we stopped worrying about the product once it left the distribution center. Now, we have to track it right into the hands of the consumer — and then worry about the reverse logistics of returns. It's about

putting the consumer first.”

Signs of the Times

IDC expects 50% of all manufacturing supply chains to be home delivery-ready by 2020, either by building internal capabilities or outsourcing to third-party logistics vendors.

That, of course, still leaves the glass half-empty at best, even though all signs in the marketplace point to the need for all CPGs to develop these capabilities. If the C-suite is still hesitant, there are four critical segments of the industry that would beg to differ:

1 Your marketing team wants you to do it. A deep understanding of shopping behavior has become critical to success, and that behavior increasingly is taking place through e-commerce channels — into which CPGs don't have much visibility yet. According to most analysts, the reason Unilever spent a reported \$1 billion to acquire Dollar Shave Club last summer wasn't the e-commerce start-up's market share, but its insight into digital consumers.

“What CPGs lack more than anything is actionable consumer data,” says Brian Cohen, head of digital integration at marketing agency Catapult. “A DTC engine allows them to collect insights directly.”

Handling every step of the transaction in the Oreo program “allowed us to have more direct interaction with shoppers, and complete ownership of the customer experience,” adds Ackerman.

Similarly, the idea behind the Bear Naked Custom Made website, which lets consumers select from 50-plus ingredients to create their own custom blends, is partly to sell more boxes of granola — but it's also to “learn more about consumer preferences so that we can continue to drive innovation,” Chris Tutor, then-vice president of strategy, told *CGT* last summer.

2 Your new competition doesn't want you to do it. If P&G could go back in time and proactively launch a DTC program for Gillette before Dollar

Shave Club and Harry's, Inc. arrived to usurp about \$400 million in shaving category sales, do you think it would?

The category leader was ultimately forced to reactively go direct with the Gillette Shave Club subscription service in mid-2015. (Perhaps to keep history from repeating itself, P&G is currently beta-testing a Tide on Demand auto-replenishment program in Cincinnati.)

If the brief history of digital media and e-commerce has taught the industry anything, it's that competitors can rise quickly. Harry's co-founders Jeff Raider and Andy Katz-Mayfield readily acknowledge that they never would have succeeded in a pre-digital marketplace. But they did, and challengers in other categories will, too, unless traditional CPGs head them off at the pass.

3 Even your retail partners want you to do it (sort of). Amazon.com sparked its latest firestorm in April when news broke that it was hosting a special summit to encourage top CPGs to become direct sellers. Such an industry-wide move would, of course, benefit the operator of the world's largest third-party marketplace while severely hampering its brick-and-mortar competitors.

And those competitors probably aren't thrilled with the prospect of facing direct competition from product manufacturers (even as many keep building their own private label portfolios). In fact, fear of damaging retailer partnerships is often cited as another reason to avoid DTC.

But while they might not want manufacturers to *sell* directly, retailers are starting to want their partners to *ship* directly. In the race toward faster delivery times, some retailers have been working with manufacturers to drop-ship online orders. To cooperate, CPGs would have to restructure their supply chains anyway.

Concerns over direct competition are, of course, largely unique to the CPG industry. Manufacturers in other categories (think of Apple, Nike, Van Heusen) have long sold direct — both online and through their own stores — while still keeping retailer partners content.

4 Your consumers want you to do it. The most compelling reason of all is that consumers increasingly are looking for new and easier ways to buy the products they need, and manufacturers must be at the ready to fulfill their needs if they want



to stay relevant.

Convenience is an important need, and one that retailers are probably more qualified to satisfy (as Moeller's earlier comment implied). But if some consumers want their detergent, pet food, diapers or toothpaste delivered to their homes each month, there's no reason why CPGs shouldn't be ready to oblige directly to maintain a personal connection.

More strategically, however, is the increasing consumer demand for unique and even personalized products. For Mondelēz, the Oreo program "confirmed that consumers are interested in buying these kinds of unique products, so gifting and bundles will be part of our story going forward," notes Ackerman.

Unique products are also a perfect way to strike a democratic compromise with retail partners, who can continue selling the mass-produced SKUs while the brand gets more personal via DTC.

Another consideration is that some CPGs (including Coca-Cola and Jack Link's) are finding e-commerce to be a great method of supplying the long tail of retail partners: Single-store owners who only need small quantities can simply place their periodic orders online. Once that operation is established, it's easy to let consumers order by the case as well.

Consumer demand for unique products and convenient fulfillment options — fueled by retailers focusing on both as competitive advantages — keeps growing. That means manufacturers already are being forced to make significant changes to their supply chain operations. (Among them: storing smaller amounts of inventory in more local facilities, a strategy IDC calls "micrologistics," Ellis notes.) Soon, the only thing most CPGs will lack is conviction.

"We're at a point in time where everyone understands how important e-commerce is," says Atwell. "It's a way to complement and supplement and drive the overall brand. It's inevitable that we all have to jump in and play. It's not a matter of if, it's a matter of how." **CGT**

**RETAILER
OF THE YEAR** FEBRUARY
2018

COVER STORY

CROWNING

Kroger

Behind Vice President of Our Brands Gil Phipps, the supermarket chain has achieved one of the top private brands programs in the country, a reason the grocer is our 2018 Retailer of the Year

By Lawrence Aylward

You'll never catch Gil Phipps muttering to himself during the workday that it's 5 o'clock somewhere. Phipps, the Kroger Co.'s vice president of Our Brands, enjoys his job too much for that kind of contrary thinking.

For Phipps the fun begins every morning around 8 o'clock when he shows up for work at the supermarket chain's skyscraper headquarters in downtown Cincinnati. The inventive and enterprising Phipps gets down to business on concepts and strategies for Kroger's Our Brands, the grocer's impressive store brands program.

"It's the most fun thing you could do," Phipps says of his role, which he has held for nearly six years.





...and how (what's the
right a little "mud")
...a little more!
...the whole.
WHAT'S EASY!

Kroger

PRIME RIB & HORSERADISH
FLAVORED



Wavy
Potato Chips



GLUTEN FREE NET WT 6.5 OZ (200g)

Kettle Cooked
NASHVILLE STYLE
HOT CHICKEN
FLAVORED
Potato Chips



NET WT 6.5 OZ (200g)

Through Kroger's Our Brands, Gil Phipps simply wants to improve people's lives.



Gil Phipps (center) instructs members of Kroger's Our Brands team to not be risk-averse. "I would rather people experiment and explore," Phipps says.

There's pressure, but it comes with the territory of leading one of the nation's largest grocery programs in private brands. But the pressure is a motivator; Phipps feeds on it like he would a bowl of Kroger-made Private Selection Pecan Pie Ice Cream.

The enthusiasm that Phipps brings to his job is contagious and has caught on with other members of the Our Brands team. Phipps and his team are determined to bring not just the best store brands possible to the Kroger customer base, but store brands that customers can't find anywhere else.

"From a consumer standpoint, we want to improve people's lives," Phipps says. "If that's our driving principle, people will embrace what we do."

Signs point to people doing just that. In Kroger's 2017 third quarter, Our Brands made up 28.2 percent of unit sales and 25.6 percent of sales dollars, figures that exceed the national average. From 2011 to 2017, Kroger's Our Brands grew from \$15 billion to \$20.5 billion in annual sales.

In October, Kroger announced Restock Kroger, a plan to "redefine the food and grocery customer experience." Restock Kroger will be fueled by capital investments, cost savings and free cash flow. The plan calls for Our Brands to play a pivotal role in the strategy. That was evident in January when Kroger said it was launching its largest-ever Our Brands customer-sales promotion.

Behind Phipps, Kroger has achieved one of the top private brands programs in the country — the reason Kroger is our 2018 Retailer of the Year.

KROGER IS THE nation's largest supermarket chain and second-largest retailer behind Walmart with annual sales of \$115.37 billion. Kroger operates about 2,800 stores in 35 states and Washington, D.C. Kroger-owned supermarket banners also include Matthews, N.C.-based Harris Teeter, Milwaukee-based Roundy's and Compton, Calif.-based Ralphs. Kroger also owns 38 manufacturing plants, where it makes 40 percent of the products that comprise Our Brands.

Kroger was founded in 1883 by Bernard "Barney" Kroger, who also began

KROGER'S CREDENTIALS

The Kroger Co. was founded in 1883 in Cincinnati by Bernard "Barney" Kroger, who also began the retailer's private brands. Barney made his own products such as bread, coffee and peanut butter and sold them from his store in downtown Cincinnati.

the retailer's private brands. Barney made his own products such as bread, coffee and peanut butter and sold them from his store in downtown Cincinnati. His marching order for achieving the best customer experience was simple: "Be particular. Never sell anything you would not want yourself," he said.

That thinking is not lost upon Phipps, who has expanded on Barney's motto. "It's about creating a lasting emotional connection with our customers through innovation rooted in empathy," Phipps says.

Kroger's Our Brands cover several tiers. The Kroger brand is the retailer's mainstream and largest store brand line with about \$13 billion in annual sales. In fact, it's the largest brand sold in Kroger stores by eight times the next largest consumer packaged goods brand. The Kroger line consists of products across various categories, including grocery, meat, coffee, produce, deli, bakery, household essentials and personal care. Many mainstream private brand lines are billed as brand knockoffs, but Phipps wants none of that thinking.

"Instead of having knockoffs of existing products, we want to have knockout versions of those products," he says.

Private Selection, a premium line featuring gourmet and artisan offerings, has annual sales of about \$2 billion. Products include breads, cakes, cookies, beverages, dairy products, meats, sauces, pastas, spices and seasonings, rubs, hummus and other products. With Private Selection, Kroger aims to take premium tastes to the next level.

"We know that people like eating foods from around the world," Phipps says. "But there are more international flavors than just sriracha. We have introduced harissa (a Maghrebi spice), peri peri (an African bird's eye chili spice) and aji amarillo (a Peruvian spice) in several of our products. So our customers go from not knowing what peri peri is to knowing what it is and then to loving its flavor."

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KROGER'S CREDENTIALS

In Kroger's 2017 third quarter, the retailer's private brands, called Our Brands, made up 28.2 percent of unit sales and 25.6 percent of sales dollars, figures that exceed the national average. From 2011 to 2017, Kroger's Our Brands grew from \$15 billion to \$20.5 billion in annual sales.



The ever-gregarious Gil Phipps likes to have fun at work. "Why shouldn't it be fun?" he asks.

COVER STORY:

Simple Truth and Simple Truth Organic comprise Kroger's free-from and organic line. Introduced in the fourth quarter of 2012, Simple Truth features more than 1,400 products across multiple categories. Kroger recently announced that Simple Truth had achieved \$2 billion in annual sales.

"Here's Simple Truth in a nutshell: natural and organic foods that are affordable," Phipps says.

The success of Simple Truth and Simple Truth Organic has impressed Carl Jorgensen, director of global thought leadership/wellness for Stamford, Conn.-based Daymon, a provider of retail strategies and services to help retailers grow their private brands. Jorgensen calls Simple Truth the most successful private brand launch in the history of the grocery industry.

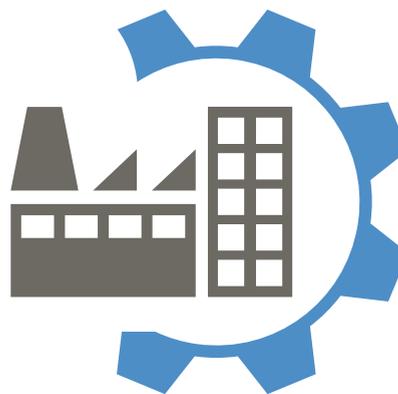
"The success of Simple Truth and Kroger's other private brand programs is a testament to the fact that Kroger is thinking in a new way about private brands and treating them as actual brands," Jorgensen says.

Kroger's HemisFares line is classified as an ultra-premium private brand. Created by Phipps and introduced in 2015, HemisFares is billed as "a journey of epicurean proportions." The brand, which offers "a guided tour of the best tastes on Earth," features authentic finds from Spain, Italy, Jamaica and Japan.

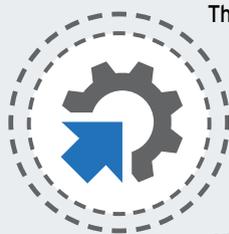
Phipps and his team, including Brad Studer, brand and marketing director for Our Brands, have traveled abroad and

KROGER'S CREDENTIALS

Kroger owns 38 manufacturing plants around the country, where it makes 40 percent of the products that comprise Our Brands.



'PLANTED' IN PRIVATE BRANDS



The Kroger Co. owns 38 plants that manufacture approximately 40 percent of its private brands, including about 60 percent of its center-store items. Nineteen plants are dairy, 10 are bakery (including two that also manufacture deli products) and the remaining make grocery items. The plants are strategically spread across the country and located near Kroger's divisions. Kroger operates all of the plants except two meat plants – one in Colorado and one in Southern California, both of which it owns but outsources operations.

Manufacturing its own private brands is a competitive advantage for Kroger for several reasons, one being that it provides the company with "incredible sourcing power," says Erin Sharp, Kroger's group vice president of manufacturing. The bigger the buy, the better leverage the company has.

"By manufacturing our own products, we lower our costs and pass the savings on to our customers," Sharp says. "We constantly monitor our costs

to ensure we are delivering high-quality products at a competitive price."

All the dairy plants are 100 percent vertically integrated, which allows Kroger to be faster to market with products.

"We put a huge emphasis on the freshness of our products, particularly in dairy," Sharp says, noting that the dairy plants continue to invest in processing technology to improve shelf life. "We guarantee our customers 10 days of milk freshness, which is nearly a 40 percent increase in the last 10 years."

When Sharp joined Kroger about six years ago, she says all plants operated in "several siloes," something she wanted to change. Her goal was to get the plants operating as one network. Sharp implemented a set of management practices called HPWS (high performance work system) across all plants to create an environment where employees have greater involvement and responsibility.

It has been a cultural transformation, but Kroger's 8,000 plant employees, whom Sharp calls "associates," are now well-connected to the manufacturing goals, and Sharp empowers them to be more involved in operations.

"I challenge our plant leaders to walk a store with their teams and look at what we are not producing and could be producing," Sharp says. "It's all about making us more competitive and relevant for the future."

searched like the raiders of the lost ark for those tastes. One of their finds came from Japan — a double-brewed soy sauce made by the same family using the same method for more than 1,500 years.

Another product in the HemisFares line is Spanish Cornicabra Extra Virgin Olive Oil. “There are two places you can get cornicabra olive oil,” Phipps says. “There is a woman in Spain who owns all of the cornicabra olive trees. You can knock on her door and maybe she will give you some. Or you can get it at our stores.”

Considering the due diligence Phipps and his team must conduct to secure the products, HemisFares only has about 40 SKUs. But it’s growing.

“We have some cool things coming out,” Phipps says.

WHILE LEADING A TOUR of the Our Brand offices on the 15th floor of the Kroger building, Phipps points to photographs of Kroger stores from another era. Phipps, Studer and the rest of the Our Brands team, totaling about

35 people, have not only transformed Kroger’s private brands to the present era, but they are already gearing up for the next era by leveraging customer insights provided by 84.51°, a wholly owned subsidiary of Kroger. 84.51° brings together customer data, predictive analytics and marketing strategy to drive sales growth and customer loyalty. Through 84.51°, Kroger can navigate complex data to reveal relevant customer trends so it can offer more personalized products and services. With 84.51°, Kroger wants to take innovation to another level.

“Many companies use innovation in a very broad sense,” Studer says. “But the true definition of it in our model is to create something that has never been created before ... something that will change people’s lives. To innovate to that level is extremely challenging, but we are doing it.”

While 84.51° is a tremendous asset, Phipps is not afraid to develop a product because he has or someone on his team has a “gut feeling” that it will succeed.

“There’s a trend across the country toward Nashville hot



Kroger continues to invest in technology at its dairy plants to improve product shelf life.

Kroger outsources 60 percent of its private brands for manufacturing, including all items for non-food private brands. One of Kroger’s suppliers is Ontario, Calif.-based Niagara Water, which manufactures 90 percent of Kroger’s bottled water. Niagara has plants across the country and can aptly serve Kroger’s distribution centers. In addition, Niagara is constantly improving its plant technology in the sector, Sharp says.

“It just made sense for us to partner with them,” she adds.

In determining potential suppliers, Kroger studies the players in the particular product landscape and decides if it will need one or multiple partners, and if they can effectively deliver to Kroger’s distribution centers. Food safety and quality are the most important steps in the vetting process, which Sharp calls rigorous.

“They don’t even get in the mix if they don’t meet certain food safety standards,” Sharp says.

Improving sustainability is a constant goal for all plants.

Thirty-three of the 36 plants that Kroger operates are now zero waste to landfill, and Sharp expects that number to climb to 35 by the end of the year.

A reduction in packaging material is another goal. Last year, Kroger launched a new lightweight gallon milk jug that uses less plastic. While the new jug is made of the same 100 percent recyclable high-density polyethylene as the old jugs, its unique design allows Kroger to use about 10 percent less plastic. The new jugs will soon be used in 17 of Kroger’s 19 dairy plants.

Sharp’s team works closely with Gil Phipps, Kroger’s vice president of Our Brands, and his team. “They develop the strategy, and we are the enabler either through our manufacturing or with our sourcing team,” Sharp says.

—Lawrence Aylward

chicken,” Phipps relates. “So what if we made a potato chip that tasted like fried chicken with Nashville hot seasoning on it?”

Phipps and his team had a gut feeling the chip would succeed as a store brand, so they developed Nashville Style Kettle Cooked Hot Chicken Potato Chips under the Kroger brand. The chips debuted late last year.

“We tasted them and said, yep, this will be a winner,” Phipps says. “People are looking for flavors they aren’t getting anywhere else.”

Phipps instructs his team to not be risk-averse. So he’s OK if a product introduction sometimes doesn’t succeed.

“I’ll take some misses if we are trying things that nobody has ever tried before,” Phipps says. “If you expect everyone to know the answer of everything, everyone will know the answer of everything. I would rather people experiment and explore.”

Studer says: “It’s the art and science of food, and we are playing with it. What I’ve found is you must have diverse thinking and be comfortable with it.”

Kroger is also investing in other areas of private brands such as apparel and floral. In October, Kroger opened its own restaurant, Kitchen 1883, which features a fresh take on new American comfort food.

There are also the intangible store brands, which can help any retailer better its image through the customer experience. Kroger offers home delivery and curbside pickup. This year, Kroger will roll out its Scan, Bag, Go technology to 400 stores, allowing shoppers the convenience to scan and pay for their purchases without traditional checkout lanes. Last year, Kroger unveiled Zero Hunger/Zero Waste, aimed at ending hunger in the communities it calls home and eliminating waste in the company by 2025. Kroger didn’t introduce Zero Hunger/Zero Waste for good public relations, but consumers who learn of it will be impressed by Kroger’s altruism.

“**MASSIVE.** THAT’S THE WORD that Kroger CEO Rodney McMullen uses to describe the potential of Kroger’s Our Brands. Grocery pundits won’t argue with McMullen, considering Kroger’s track record with its private brands. But just like other retailers, Kroger faces challenges with its store brands in the market place. Competition is fiercer than ever and some retailers are driving down price, using their private brands as leverage.

McMullen says Kroger won’t lose on price, but it also won’t try to lead the market down on price. He also says Kroger views anyone who sells food as competitors.

Phipps is aware of the challenges and the role that Kroger’s private brands play in combatting them, but he’s a bring-it-on type of guy. So Phipps will keep showing up for work at 8 o’clock every morning to do what he does best — working with his team to take Kroger’s Our Brands to another level and then to another level after that.

And he’ll have plenty of fun doing it. **SB**

Kroger’s Our Brands cover several tiers. The Kroger brand is the retailer’s mainstream and largest store brand line with about \$13 billion in annual sales. Private Selection, a premium line featuring gourmet and artisan offerings, has annual sales of about \$2 billion. Simple Truth and Simple Truth Organic comprise Kroger’s free-from and organic line and also recently achieved \$2 billion in annual sales. HemisFares is classified as an ultra-premium private brand. Billed as “a journey of epicurean proportions,” the brand’s products offer “a guided tour of the best tastes on Earth.”

Aylward, editor-in-chief of Store Brands, can be reached at laylward@ensembleiq.com.

Hy-Vee Partners with Wahlburgers, Orangetheory



Changing Retail Landscape

Last year, eating meals outside the home surpassed meals consumed in the home. According to the Bureau of Labor Statistics, grocery spending trends began to shift in 2014. Millennials have played a significant role in that evolution, spending 44 percent of their food dollars annually on eating out, according to the Food Institute's analysis of the USDA food expenditure data from 2014.

That increase has skyrocketed income spent in restaurants and on takeout meals, which has risen from 34 percent in 1974 to 50 percent in 2014.

"There is a changing landscape in the retail industry," Edeker said. "Hy-Vee has a responsibility to our customers, employees and communities to look for new ways to strengthen our company. With this type of progressive action, Hy-Vee is well positioned for future growth."

Wahlburgers is a family-friendly restaurant that offers a unique dining experience featuring signature burgers and drinks in a casual environment. Currently, Wahlburgers operates 17 locations in nine states and Canada.

Hy-Vee will build, own and operate 26 Wahlburgers in seven Midwestern states,

Supermarket retailer Hy-Vee Inc. is entering into two strategic partnerships that it says will strengthen its commitment to bringing customers increased access to culinary expertise, health-and-wellness choices, and new customer experiences.

As part of this effort to diversify its business model while reinforcing its mission of making customers' lives easier, healthier and happier, Hy-Vee plans to build, own and operate 26 Wahlburgers restaurants, nearly doubling the brand's current locations. Hy-Vee will also add select Wahlburgers menu items in all of its in-store Market Grille restaurants.

In addition, Hy-Vee will partner with Orangetheory Fitness to provide customers with convenient access to an intensive group-fitness program in or adjacent to Hy-Vee stores.

"These unprecedented collaborations reinforce our company's longstanding commitment to health and wellness, culinary expertise and customer experience," said Hy-Vee Chairman, President and CEO Randy Edeker. "However, they also represent a bold step to deliberately evolve our business to meet the change in our customers' lifestyles and spending habits. These partnerships keep us on the leading edge as the retail grocery industry evolves."

becoming the brand's largest single franchisee. In addition, all 84 Hy-Vee Market Grille restaurants will offer Wahlburgers-branded menu items. The Wahlburgers restaurants will complement Hy-Vee's Market Grille restaurants, and tie into the organization's commitment to providing culinary expertise and experiences.

'A Great Partner'

"I would personally like to welcome Hy-Vee to the Wahlburgers family," said Paul Wahlberg, chef and co-founder of Wahlburgers. "It's a great honor to be able to partner up with a company that has a long and successful history in the two areas that are very important to Wahlburgers, quality and customer service."

The first Hy-Vee-owned Wahlburgers will be located in the retailer's headquarters city of West Des Moines, Iowa, and open in mid-2018.

"Hy-Vee has been a great partner for us with our Performance Inspired Nutrition line. Their commitment to quality and innovation shows in everything they do," said Mark Wahlberg, actor, producer and co-founder of Wahlburgers. "I can't think of a better fit for Wahlburgers to introduce our family's hospitality to the Midwest."

Fitness Experience

Orangetheory Fitness is a fitness program offering an intensive group-training workout. With 750 studios open nationwide, the company is on track to open 1,500 in the next two years.

Hy-Vee will partner with Orangetheory to offer customers a fitness experience in or adjacent to Hy-Vee stores. In addition, Hy-Vee dietitians will work with Orangetheory members to offer dietetic services, provide samples of nutritional products and lead store tours to showcase items that align with member needs.

This partnership creates an integrated fitness component to bolster Hy-Vee's focus on health and wellness, including in-store dietitians, HealthMarkets, chefs, fresh and organic produce, and pharmacies.

The first Hy-Vee Orangetheory Fitness location will open in 2017 in Minnesota's Twin Cities, a significant growth market for the retailer.

"Orangetheory is a revolutionary fitness experience, which, combined with Hy-Vee's health offerings, creates a one-stop shop for wellness," said Orangetheory Fitness Chief Brand Officer Kevin Keith. "Like our members, we know that many Hy-Vee customers are looking for more convenient ways to access fitness and healthy eating options in one location - this partnership solves that need."

Innovation Important

Innovation has become especially important to Hy-Vee as customer lifestyles and attitudes toward retail shift. In addition to these partnerships, Hy-Vee will continue to explore



new ways to evolve while maintaining its core focus.

"At Hy-Vee, we are committed to meeting our customers where they are - whether that is in a retail grocery environment, restaurant or online through our Aisles Online program," said Hy-Vee EVP of Strategy and Chief Merchandising Officer Jeremy Gosch. "These partnerships are just another example of Hy-Vee listening to the needs of our customers."

Boca Raton, Fla.-based Orangetheory Fitness is a scientifically designed, one-of-a-kind group personal training, interval-fitness concept offering a 60-minute workout broken into intervals of cardiovascular and strength training.

Hingham, Mass.-based Wahlburgers was founded by Executive Chef Paul Wahlberg, his celebrity brothers Mark and Donnie, and other investors. Wahlburgers offers a fun, casual music-filled atmosphere and a menu featuring a variety of fresh burgers, housemade condiments, crispy haddock, seared chicken and vegetarian options, along with thick creamy frappes and floats.

Hy-Vee Inc. is an employee-owned corporation operating more than 240 retail stores across eight Midwestern states with sales of \$9.8 billion annually. **PG**

The Magic of Ma

ALIBABA FOUNDER JACK MA'S VISION AND DETERMINATION BUILT THE WORLD'S LARGEST **RETAIL COMMERCE COMPANY** IN A SPAN OF 18 YEARS. NOW THE **E-COMMERCE GIANT** IS ON TRACK TO BECOME THE **WORLD'S FIRST \$1 TRILLION COMPANY** BY MAKING IT EASY TO DO BUSINESS ANYWHERE. > By **Mike Troy**

Alibaba is a hard company for most Americans to understand. It is not a retailer in the classical sense, but it calls itself the world's largest retail commerce company. It doesn't operate physical stores or sell products directly to consumers, but its various Web sites are places where hundreds of millions of shoppers go to buy things, purchasing merchandise valued at \$547 billion last year. There really is no equivalent to Alibaba in the U.S. because the Chinese company was born online in 1999 and quickly became a mobile first company because Chinese consumers leapfrogged the desktop to mobile evolution that occurred in the U.S.

The best way to think about Alibaba is as the owner of a digital mall where buyers and sellers congregate to conduct commerce. However, unlike a physical mall where a shopping center developer leases space, Alibaba provides users of its platform all manner of marketing, logistics, payments and sales support services. It would be like a mall owner providing a tenant with cash registers, supply chain services, customer support and order fulfillment.

The approach has made Alibaba a dominant force in China's online retail economy and one of the world's largest companies with annual revenues of \$23 billion. However, that figure doesn't tell the company's true impact on the China retailer market or the growth potential that exists for U.S. suppliers as Alibaba continues to execute its strategy. The gross merchandise volume (GMV) of \$547 billion the company facilitates on its platform make Alibaba the world's 21st largest economy, according to Ma.

Within three years Ma expects Alibaba's GMV will top \$1 trillion as the growth of China's middle class continues to fuel a consumption boom. By 2036 the



▲ Alibaba founder Jack Ma.

company will be the world's fifth largest economy, serving 2 billion consumers, creating 100 million jobs and supporting 10 million businesses to be profitable on its platforms, according to Ma. Those are big numbers and to get there Alibaba needs a lot of help from U.S. retailers and suppliers.

OPPORTUNITY CALLING

There are already about 100,000 brands, 7,000 of them from the U.S., selling on Alibaba platforms, but getting to \$1 trillion in GMV will require even greater involvement from U.S. retailers and suppliers whose products are highly desired by Chinese consumers. Ma readily concedes that a key reason why is the perception among Chinese shoppers that U.S. goods are better, safer and

more unique. It is why the company held its first supplier summit called Gateway '17 in Detroit in late June, to educate suppliers about the China opportunity, highlight demand trends and explain how Alibaba facilitates cross border trade. The genesis for the event had come two years earlier when Ma outlined Alibaba's strategy during a speech at the Economics Club of New York, according to company president Michael Evans.

"Our U.S. strategy is not to sell products to U.S. consumers. Our U.S. strategy is to connect retailers, brands and small businesses with the Chinese consumer," Evan said. "Our edge is a massive base of consumers in China, more than 500 million of which are on our platform. As that consumer base moves in the middle class, one thing we know, based on our data and activity on our platform today, is that they are more and more focused on buying high quality American products."

Evans is a former longtime partner at Goldman Sachs who also won a gold medal for Canada's Olympic rowing team in 1984. He joined the Alibaba board in 2014 when the company went public and assumed his current position in 2015.

"The most important thing for small businesses is to learn about the consumer opportunity in China. Very few of them know anything about it. Very few large corporations who are also on our platform

know that much about the consumer opportunity," Evan said. "We want people to understand the sheer magnitude of the opportunity, what Chinese consumers are looking for and which categories are most interesting and start to understand solutions that are best for them to connect to a Chinese consumer."

A key category is groceries and fresh products in particular. China's middle class and the growing upper middle class have a real appetite for U.S. grown fresh products and will pre-order products such as cherries or apples from Washington.

"One of the most interesting opportunities in grocery is fresh. The demand for fresh product out of the U.S. in fruit, vegetables and fish is enormous," Evans said. "That's going to be a big additional component of what we are doing in groceries."

A few years ago, Ma recalled a promotion involving lobsters from Canada in which 97,000 live lobsters were sold in one day.

"For almost three weeks after that there were no lobsters in the Canada market," Ma said.

GLOBALISM'S FUTURE

Much of the appeal for the 3,000 attendees at Gateway '17, an event targeted at smaller businesses, was about seizing the opportunity today that China represents for future growth. To make that case Ma used his own life story as a metaphor for



the type of hard work and perseverance required to succeed in business.

“In my early 30’s I was considered to be a loser,” Ma said, recounting frequent encounters with rejection, even after he founded Alibaba. He applied to a university three times and failed so he and four friends applied for police officer jobs. All were hired but Ma. When a fancy hotel opened in his hometown he and a cousin applied for waiter jobs and the cousin, who Ma said still works at the hotel, was hired because he was taller and more handsome. When Ma and 23 other friends applied for a job at KFC Ma was the only one who wasn’t hired. Ma found his calling as an English teacher at a university where he remained for six years before he discovered the Internet in 1995 during a visit to Seattle.

He then persuaded 18 of his friends that the Internet was going to be a big deal and that Alibaba was going to build one of the top 10 sites in the world. Ma and his crew scraped together \$50,000 to get the company off the ground but everyone thought they were crazy, largely because the Internet was practically nonexistent in China in 1999 with only about 10 million users. Today there are more than 700 million.

“Very few people believed we would make it happen because we didn’t have high resumes and most of my colleagues were students and friends. Only three people knew anything about computers and none of us were very successful,” Ma said. “We had no relationships and we didn’t have great talents. No one believed in the Internet or e-commerce in China. That was the thinking at the beginning,”

However, Ma saw the future even though it was hard to convince others of the change that was coming. No one would listen to Ma or co-founder and vice chairman Joseph Tsai when the pair went to Silicon Valley to raise capital. Ma said they met with 30 venture capital firms.

“People didn’t even want to listen to us. They said, ‘this guy is crazy,’” Ma said. “We are very optimistic and we believed in the future and the Internet. We believed if we do not succeed someone else will. We know that we have to be humble and serve our customers. If the investors don’t like us but the customers like us then we have the future,” Ma said.

JACK’S WORLD

Globalism has become a politicized word with negative connotations, but Ma doesn’t see it that way. His view, because he is an optimist, is one of opportunity and growth with a broader universe of companies able to participate in global trade. That worldview is one of the reasons Ma pledged to President Donald Trump

AMAZON BORROWS ALIBABA IDEA

One week after Alibaba hosted its first ever event for U.S. suppliers in Detroit, Amazon hosted an event with a nearly identical format and mission in New York City.

Regardless of whether the timing was by design or coincidence, both companies are making an appeal to suppliers to use their platforms and related services to reach consumers. Alibaba’s event on June 20 and 21 featured top executives from the company, including founder Jack Ma, elaborating on the growth potential for U.S. suppliers in China. Ma and others implored the roughly 3,000 attendees not to miss out on the opportunity of a lifetime: to sell U.S. made products to the emerging middle class of consumers in China who are forecast to be the engine of global growth for decades to come.

Amazon’s event, branded as Boost with FBA, in reference to the company’s Fulfillment by Amazon service, drew a smaller crowd of about 1,000 attendees to Pier 94 in Manhattan. Founder Jeff Bezos wasn’t on hand, but attendees did hear from 17-year Amazon executive Tom Taylor who founded the FBA service a decade ago and also oversees payments.

With FBA, sellers on Amazon allow the company to store and ship their products from Amazon’s fulfillment centers. That makes the products eligible for free two day or same day shipping, which increases their appeal to Prime members. FBA delivered more than 2 billion items in 2016, according to Amazon.

that Alibaba would create 1 million U.S. jobs as a result of increased hiring by American companies to keep up with demand for their products in China.

"I am a strong believer of globalization and free trade," Ma said.

The nature of that trade is going to look a lot different because of the internet and companies like Alibaba. Two hundred years ago global trade was controlled by emperors and kings and for the past 20 years it has been dominated by 60,000 big companies, according to Ma.

"Young people, small businesses, women and developing countries had no chance even though world economies grew very fast because of globalization," Ma said. "What if we can support 60 million small businesses so they can buy and sell and go global?"

It's not a crazy idea, especially coming from someone who envisioned China's digital future well ahead of others. With the number of Internet users worldwide approaching 2 billion, and many of them on mobile devices and under the age of 30, Ma is convinced smaller companies will be the future.

"For the past 100 years everything was about size and standardization, but the in the next 30 years the world is shifting from standardization to personalization. Big companies are going to face huge challenges," Ma said. "Small guys, we have problems, but big guys they have bigger problems than we have," he added, apparently still including himself among the universe of small companies.

102 YEARS

One of the most important things to know about Alibaba is the company's 102 year philosophy and attitude toward success. When the company was founded in 1999, Ma came up with the idea of building a company to last 102 years that would span three centuries until 2101. It made for a novel source of inspiration to keep a growing and increasingly successful company focused on the long term.

"We will never say we are a successful company because we will not be successful until we survive 102 years. We just finished 18 years so there are 84 years to go but in the next 84 years anything can happen. When you get a feeling of being successful, that's when trouble comes."

A lot can happen over the next 84 years, but 30 is the figure Ma likes to use when describing the more predictable future. The American economy was the engine of global growth the past 30 years, but China will be the engine of the future as

consumption among its population of 1.4 billion people grows and its population of middle class currently pegged at 350 million doubles in size during the next five years.

It is a massive opportunity Ma and other speakers at Gateway '17, including UPS CEO David Abney, implored suppliers to take advantage of. Abney used to have special upside down world map in his office to remind him of how others view the U.S.

"To the rest of the world the U.S. is not the center of the universe and we see that more than ever today," Abney said. "China has a larger middle class than the total U.S. population with a real desire for U.S. goods and services."

The country already has 102 cities with a population of more than 1 million residents, compared to only 10 in the U.S. and by 2030 it will be home to one third of the world's largest cities, according to Abney.

"If you are serious about international growth you cannot ignore China," Abney said.

Plenty of companies are paying attention to China, which is why official government forecasts put the value of U.S. imports to the country at \$8 trillion over the next decade. Yet Ma thinks the figure will be more like \$10 trillion.

"Chinese consumers are crazy about American products and everything big companies have been able to do in the past 20 years small businesses are able to do today," Ma said.

Currently Alibaba delivers about 60 million packages a day, but in 10 years Ma thinks that figure could be 1 billion packages a day.

"Our goal is making sure in the next 10 years anyone anywhere in the world can place an order online and within 72 hours they will receive it," Ma said.

That's about the time Ma has indicated he may no longer have the strength to lead a company that this year will entail him spending about 1,000 hours on an airplane. He thinks he may go back to teaching, something he really hasn't stopped doing since founding Alibaba. **RL**

Power of the PLATFORM

Alibaba claims to be the world's largest retail commerce company and that statement is true as long as the determination of size is based on the metric of Alibaba's choosing.

Walmart is generally regarded as the world's largest retailer and for good reason. It easily outdistances competitors with annual revenues of nearly \$486 billion and a footprint of 11,600 stores and Web sites operating in 28 countries. It has a massive workforce of more than two million employees and profit of \$13.6 billion. By comparison, Alibaba is downright puny with revenues of only \$22.9 billion. By that measure, it can't even claim to be the largest retailer in China. That distinction falls to rival JD.com, a company in which Walmart acquired a 12.1 percent ownership stake, with revenues of \$37.5 billion.

Alibaba's claim of dominance stems from its use of gross merchandise volume, or GMV, to describe its scale. The company's GMV last year was a staggering \$547 billion compared to JD.com's GMV of \$95 billion. Neither Walmart nor Amazon use the GMV metric in their financial results because their operating model and approach to financial reporting is different from Alibaba and JD.com. The Chinese competitors function as platforms, Alibaba more so than JD.com, who facilitate commerce between buyers and sellers. That's why Alibaba refers to itself as a "retail commerce company" rather than a retailer since it isn't the actual seller of product.

Amazon straddles both worlds in that it is a first party seller, like Walmart, but also generates considerable GMV because more than half of the items it sells worldwide are from third party sellers. Amazon earns a fee on each of those sales and those fees are reflected in the company's financial results, however Amazon doesn't share a GMV figure like its Chinese rivals. Doing so would provide a more accurate representation of the company's true impact on the overall retail market.

The fees earned on services provided to platform users to generate GMV can be substantial. For example, Alibaba produced a profit of \$6 billion on revenue of \$23 billion last year, while Walmart produced retail sales the old fashioned way

— buying, distributing and executing transactions in physical stores — to generate a rate of profitability significantly less than Alibaba's. Amazon's profit is less than half of Alibaba's.

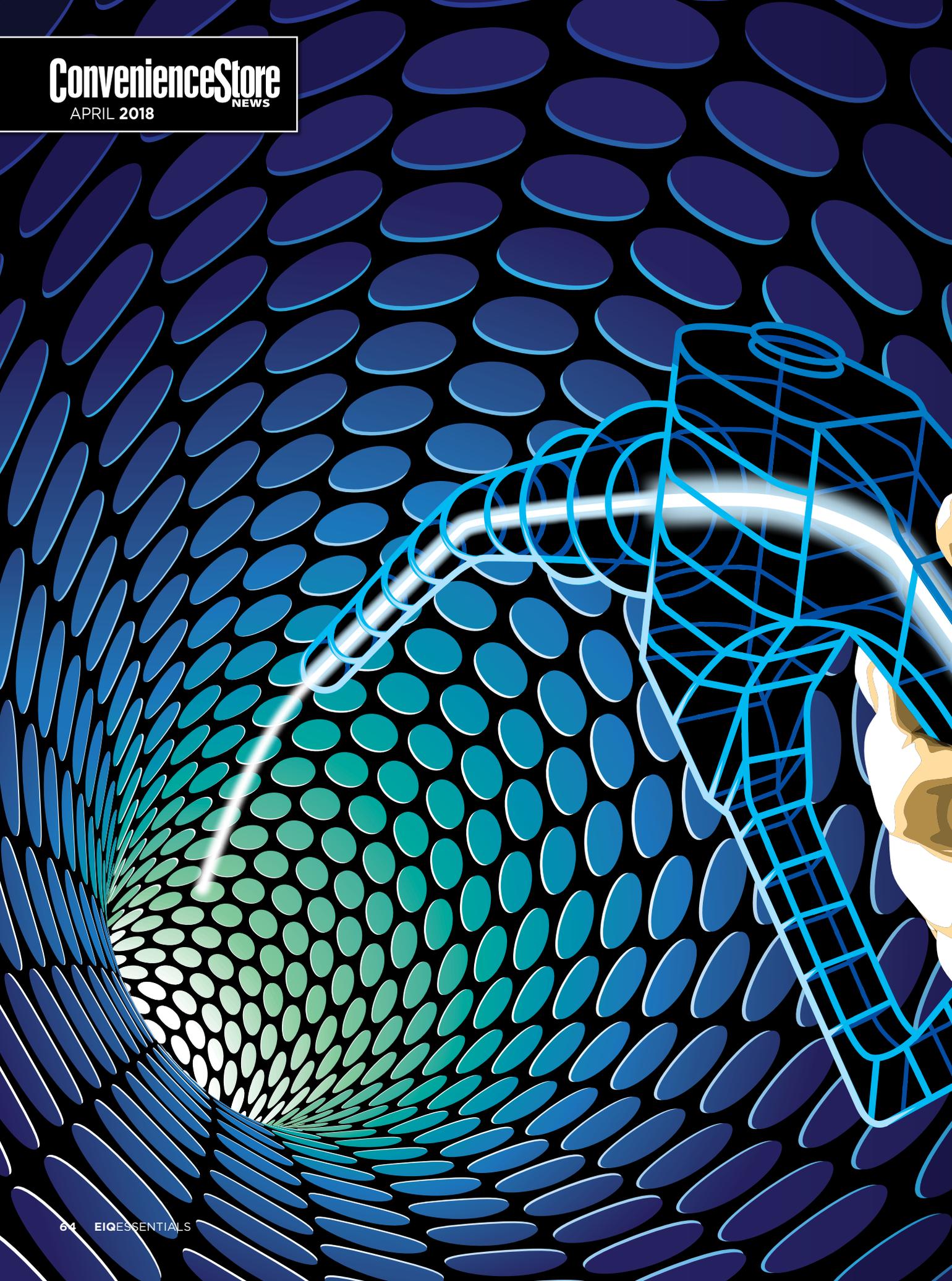
Alibaba is a dominant force in China and founder Jack Ma has said the company will surpass GMV of \$1 trillion in the next three years. Meanwhile, competitors are looking to find their footing. Amazon doesn't disclose results for China, but its international division, which accounts for 32 percent (\$43.9 billion) of total revenues, had an operating loss of \$1.3 billion last year, double the prior year's loss of \$700 million. JD.com, the company Walmart has been steadily investing in since first disclosing a 5.9 percent ownership interest last June, has lost money each of the last five years.

Walmart operates 439 locations in China but when discussing the performance of the business tends to use broad statements or provide percent change figures, which lack context because it doesn't disclose sales figures. Despite the lack of visibility, Walmart is making interesting moves in China that are potentially more significant than anything it has done domestically with the acquisition of Jet.com or other niche players. Most notably, the investments in JD.com that began last year when Walmart struck a deal to have JD.com take over its e-commerce operations gave Walmart and Sam's Club access to the JD.com platform and a massive distribution network. JD.com is a little like the Walmart of China in that regard since it has invested huge sums since 2007 to develop a network of 256 warehouses in 54 cities encompassing 60 million square feet. JD.com also operates 6,906 smaller delivery stations and has a joint venture with a crowdsource delivery company called New Dada that offers one hour delivery from 80 Walmart stores. Alone, Walmart and JD.com have their challenges, but together the companies offer a unique collection of capabilities that give Chinese consumers a viable option to Alibaba and could pose a real threat to Jack Ma's \$1 trillion GMV aspirations. **RL**

BATTLE OF THE BUSINESS MODELS

	 (FY ended 3/31/17)	 (FY ended 12/31/16)	 (FY ended 1/31/17)	 (FY ended 12/31/16)
Annual Revenues	\$22.9B	\$136B	\$485.9B	\$37,465B
Percent Change	56%	27%	0.7%	43.5%
Net Income	\$5,989B	\$2,371B	\$13.643B	(-\$549M)
Percent Change	(-42%)	296%	(-7.15%)	58.2%
Cash and Equivalents	\$21.3B	\$19.3B	\$6.8B	\$2.8B
Number of Employees	50,092	341,400	2,300,000,000	120,622

SOURCE: Company Reports





THE FUTURE OF FUEL RETAILING

FROM THE ENERGY SOURCE TO THE FUELING EXPERIENCE, “FILLING UP” IS IN FLUX

A Convenience Store News Staff Report

THE BASIC WAY MOTORISTS FILL UP THEIR VEHICLES TODAY IS NOT THAT MUCH DIFFERENT FROM A GENERATION OR TWO AGO. In most U.S. states, a driver notices he or she is low on gas, pulls into a convenience store or gas station, gets out of their vehicle, lifts the nozzle off the pump and inserts it into their fuel tank. Once full, the driver pays and pulls away. It could be 1978 or it could be 2018.

One major element that has changed, however, is what motorists expect from the fueling experience — and their expectations are only getting higher.

“I like to think back to 50 years ago when my grandad was filling up and he would have bought fuel and maybe lubricants from a gas station. Fast forward to today and we are still discussing those fuels, which we will always be famous for, but consumers want so much more,” noted Nicola Buck, vice president of marketing, Fuels North America, at BP plc.

On their wish lists? Cleaner energy. Technology. Apps. Convenience.

“They want technology to improve the experience. They want convenience in its broadest form. So, what does that mean for food for now, food for tonight, food to go? And they want the experience to be transformed,” Buck explained.

Today’s fueling industry must change to meet these new expectations.

“Honestly, the fueling industry, if you think about it, hasn’t really changed in 20 years because of the way our sites are built. How many products and services are like that today? Very few,” said Buck. “Consumers are expecting different types of experiences. Look at Amazon. Everything is changing, and even the fueling experience needs to change.”

But what exactly does the future of fuel retailing entail? Is it about the types of fuels? The fueling experience? The way consumers get around in the first place?

The answer, according to industry insiders, is: All three.

Rethinking the Market

To date, the biggest change in the fuel retailing market came in the 2000s, when the market saw a downturn. To stay competitive, retailers had to find ways of increasing customer-generated profits that were not necessarily fuel-related.

“Retailers had to start diversifying their products,” said John Eichberger, executive director of the Fuels Institute, a nonprofit organization dedicated to evaluating issues affecting the vehicles and fuels markets. “I think we’ve seen an acceleration of that.”

The change in focus included a heavier emphasis on operations and quality of service, and an integrated approach to drawing customers in from the fuel pump to make in-store purchases.

Looking to the future, regardless of how gas prices are affected by the economy and other factors, Eichberger expects the constant push for fuel-efficient vehicles to affect trip frequency and thus, retailers must be prepared to meet new and changing consumer needs.

“We have to rethink how we go to market,” Eichberger said, suggesting that companies rethink things as basic as a gas station’s layout. “It might be time to take the entire facility ... throw that into a blender and see what comes out.”



He pointed to the rise of ride sharing as a way retailers can adapt and offer new solutions. They could offer car care for Uber and Lyft drivers — not necessarily maintenance, but services to help keep a car clean and attractive. Retailers could also target Uber and Lyft drivers by providing them a place to take breaks between rides.

While individual services and initiatives will vary by retailer, the important thing is to “capitalize on the opportunity the market is bringing us,” Eichberger stressed.

“It’s all about being ahead of the game. Not too far ahead that you lose money from your customers, but far enough ahead that you are ready.”

— Roy Williamson, BP plc

The Future of the Fuels

Advancements in the retail landscape within the past decade have included an ongoing trend of high-volume retail site fuel dispensing, according to Kevin Kinney, general manager, Light Oils Marketing, at CITGO Petroleum Corp. The configuration of sites have trended toward larger plot sizes to accommodate larger convenience store prototypes and increased fueling positions.

As site footprints have grown, so too has the variety of fuel/energy options offered at retail sites. There is considerable debate in the industry over which types of alternative fuels/energy will emerge the victors and garner the most support in the near- and long-term.

Fuels blended with ethanol, such as E85 and E15, have the advantage of a low cost of production, but these fuels also bring certain infrastructure hurdles that still need to be addressed — such as federal law that prohibits fuel with ethanol from being sold during the summer months in order to limit ozone, according to Eichberger.

“There’s a lot of confusion associated with that,” he said, which has slowed some retailers’ adoption of E15. “The rules are clear, but the enforcement is not.”

If this regulatory issue is resolved, Eichberger predicts that several thousand locations will add E15 in the next few years.

While the ultimate future of biofuels hinges on federal policy, the Fuels Institute chief believes there is much to be gained from working with automakers, who are continuously looking for fuel that is more efficient. He also strongly advises the liquid fuel industry to look outside the current market and recognize coming competitive threats, particularly as the pace of electric vehicle (EV) development is only going to accelerate.

"There's an opportunity for [liquid fuel producers] to increase their roles in the future market, but in-fighting in the industry is compromising that," Eichberger said.

In the near term, Roy Williamson, vice president of Mobility at BP, sees electric as the likely winner in the alternative fuels/energy race. In the long term, however, he thinks hydrogen fuel cells look like the best bet. Also, in certain specific use cases, gas — compressed natural gas (CNG) and liquefied natural gas (LNG) — will have their applications, he added.

"If you were going to put your money on something today, I think it would be electric," he said, acknowledging that more work needs to be done to push electric to the top.

Today, 85 percent of EV charging is done at home. Charging time is a factor when you talk about bringing this service to the convenience channel, according to Williamson.

"Tesla superchargers can do half an hour, 20-minute charges. That begins to be acceptable from a c-store perspective," he explained. "But you really need to get down to 10 to 12 minutes, which is where the industry is going and certainly where we are encouraging the industry to move."

From a vehicle manufacturer perspective, the industry needs batteries that can handle a speedier rate of charge and equipment that can deliver it — including the infrastructure, which is quite expensive, said Williamson. As it becomes more common, he believes the cost will come down.

As far as the convenience channel is concerned, ultra-fast EV charging is the answer, he said. "We need to make sure we encourage that in the marketplace," he added.

BP does not currently have an electric vehicle charging platform in the United States, but the company is looking to develop one in the U.S., as well as in Europe and China.

"Certainly, we are looking at being a key provider of energy to low-carbon vehicles in the future," Williamson said. "The penetration is very low. It is not a crisis of disruption at the moment because there are so few electric cars. But they will come. The question is just a matter of [when], not a question of if. It's all about being ahead of the game. Not too far ahead that you lose money from your customers, but far enough ahead that you are ready."

To that end, the company's BP Ventures division recently announced a \$5-million investment in FreeWire Technologies Inc., a manufacturer of mobile rapid-charging systems for electric vehicles. BP will roll out FreeWire's Mobi Charger units at select BP retail sites in the United Kingdom and Europe during 2018.

Sales of electric vehicles and plug-in hybrids are already on the rise, jumping 26 percent in 2017, Eichberger cites. Still, it will take quite a while for sales to increase significantly enough to affect the number of vehicles on the road. If electric vehicle sales continue to see exceptional annual growth of 20 percent each year, eventually reaching 42 percent of vehicles sold in 2035, they would still make up only 10.5 percent of the cars on the road.

"They're coming, they're going to grow market share, but it's going to take some time," Eichberger said.

Retailers therefore have some time to plan for how they can capitalize on the electric vehicle market. Most charging will be done overnight at drivers' homes. Unlike traditional vehicles, drivers of electric vehicles are likely to charge at gas stations in smaller increments to aid the battery. "They're going to plug in when and where they can," noted Eichberger.

Drivers of electric vehicles will do more advance planning for longer trips, though, which will give retailers the opportunity to have a competitive advantage. Placing chargers along routes where consumers drive 100 to 150 miles will be strategically important.



Still, despite advances in alternative vehicles such as electric cars and hybrids, the “fundamental reality” is that even in the most aggressive transition models, the internal combustion engine will dominate for the next four to five decades, according to Eichberger.

The Future of the Fueling Experience

Having EV charging stations and alternative fuel blends may help retailers draw in consumers who are seeking those options, but it's going to take them upping their game around the fueling experience to keep the everyday motorist coming back.

Competitive prices are one piece of the puzzle. At the same time, easy and convenient payment solutions, enjoyable consumer experiences and changes in fuel preferences are moving to the forefront of the fuel retailing industry, according to Phillips 66, which markets refined petroleum products in the United States under the Phillips 66, Conoco and 76 brands.

“The consumer experience is more important than ever,” said Rod Palmer, general manager of marketing services for Phillips 66. “Millennials especially have a unique power of influence over buying behaviors. They demand a delightful, modern and convenient buying experience. The solutions we develop must meet the demands of this connected consumer.”

To stay competitive, innovation is a must, Palmer stressed.

As part of its innovation strategy, Phillips 66 is rolling out an easy-to-use mobile payment solution. It was recently introduced to Phillips 66's network of branded retail locations.

“It's not just about being able to pay at the pump — it's about being able to pay with your smartphone,” Palmer told *Convenience Store News*.



The goal is to make it easy and low-cost for the company's branded customers to implement, according to Jim Macari, Phillips 66's director of innovation.

“The Phillips 66 Mobile Pay Solution works at the pump and inside the store. It's designed to benefit our customers' entire business by attracting consumers and increasing security,” Macari explained.

BP's Buck echoes the importance of innovation and says, at the very least, fuel marketers and retailers should be looking at ways to shave time off the fueling experience.

“Time is so important to [consumers]. Anything we can do to make that site experience frictionless is going to be important. That's where things like mobile pay start to come in,” she said.

With pay at the pump, a driver still has to get out of the car, still has to put a credit card in the reader, still has to type in a ZIP code — and still has to stand out in the cold in certain locales.

Once retailers have things like mobile pay — which may seem like a small step — they start to save consumers a few precious moments, and every second counts when you are in the mind-set of getting back on the road, Buck explained.

“It makes a frictionless experience and that, for us, is the start of a journey,” she said. “It may start with an app today, which is all about payment and rewards that are loaded into one system, one step. Then, we continue down that path. How do we collect data on our consumers to push personalized offers and services? How do we get feedback through the app? How do we interact to make the experience more fun?”

When looking to the future, the focus for retailers is on the needs of Generation Y and Generation Z, according to CITGO's Kinney. As he sees it, these two technology-driven generations will place more importance on the speed



of refueling, ease of transactions like NFC technology at the pump, aesthetically appealing sites, and the latest technology inside and outside the convenience store.

Taking the fueling experience even further into the future, Buck points to connected car technologies, where tasks are tied into the vehicle dashboard.

“Once we have this platform, which is as frictionless as possible, everything is integrated into the dashboard and remotely monitored — like fuel levels,” she said. “We can remind our customers when it’s time to fill up. We can remotely monitor lubricant levels and use that to upsell related products.”

The Future of Mobility

Of course, the future of fuel retailing begins even before the issue of fueling itself. Where the conversation really starts is the future of mobility. How do people get around?

“People are not owning their own cars. They may be using their Uber and they never stop at a convenience store with the driver. So, how do we provide convenience on the go for people? How do we deliver to their own vehicles?” asks Williamson of BP.

Retailers must prepare for the shift in who owns cars and how they are used. Increasingly, fewer millennials and younger people are getting driver’s licenses. Even in areas without a reliable public transit infrastructure, many people feel they don’t need a vehicle and see the cost of services such as Uber and Lyft as an acceptable expenditure.

“Some organizations are projecting massive, fast conversion to this autonomous on-demand ride-hailing. I think it’s going to be niche; it’s going to gain traffic in certain markets, [but] it’s not going to be ubiquitous everywhere,” Eichberger forecasted. “Ultimately, I think we’re going to see a percentage of the population opt to use somebody else’s infrastructure for transportation. Those generations are extremely inclined to adopt a sharing economy.”



In Williamson’s view, the world is going to change dramatically over the next two decades, with urban markets evolving at a more rapid pace than rural and suburban markets.

“What you will see will be a very different experience in central, urban environments from deep, rural environments. You do today, to an extent. But that differentiation will be greater. You will have electric vehicles; you will have autonomous vehicles,” Williamson said. “We already cater differently to those markets today.”

Although self-driving vehicles have yet to overcome various technological challenges, Eichberger expects deployment and testing of self-driving vehicles over the next couple of years. As the technology gets better, its applications will become clearer. From there, the necessary regulations will be clarified, and the effect on consumers will be more known.

For now, Eichberger advises retailers to keep an eye on this developing technology and consider what opportunities it will bring to develop collaborative business relationships.

“It takes being aware of what’s coming around the corner and asking yourself: ‘How can I benefit from this?’” he said.

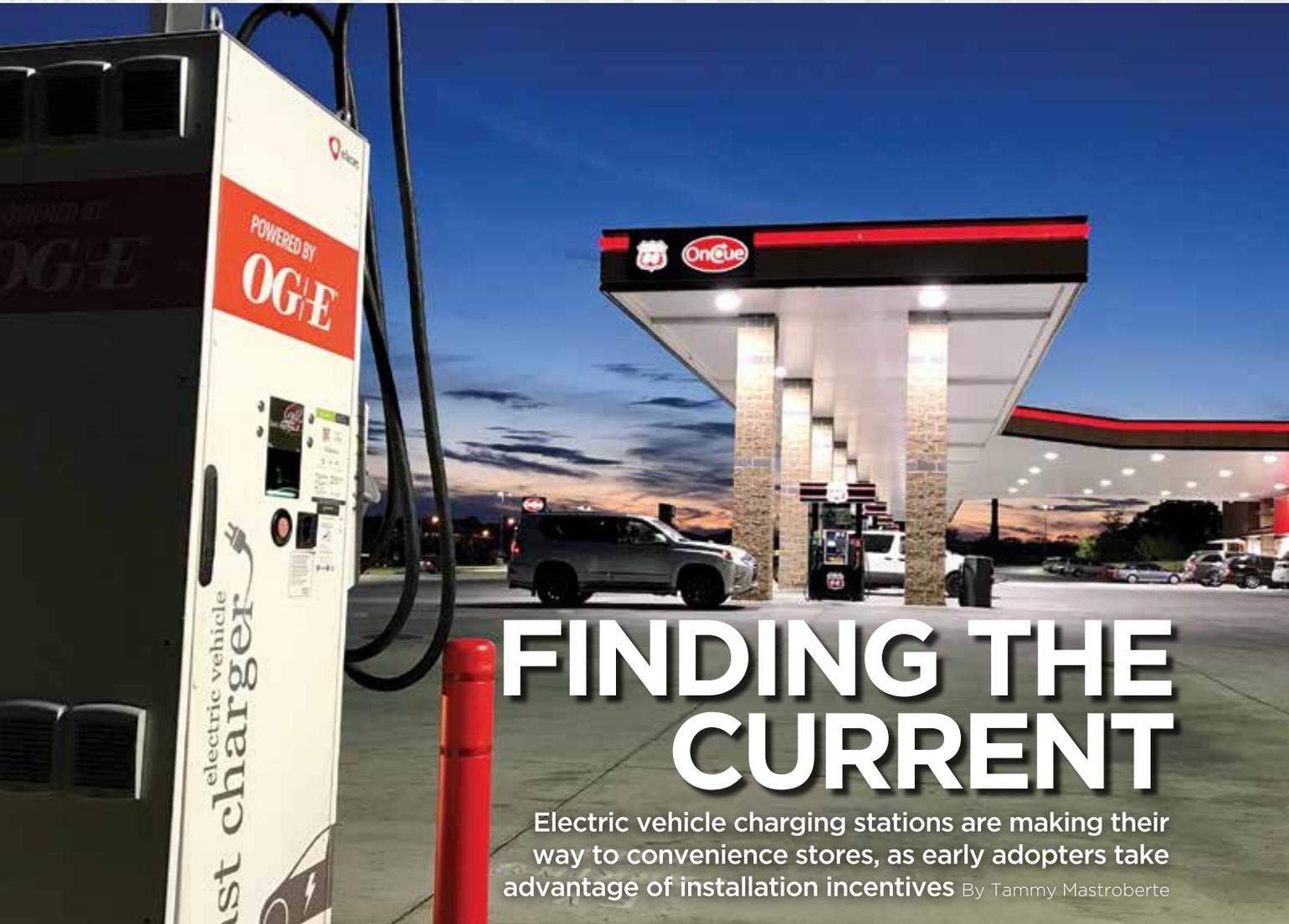
Retailers that recognize a new paradigm is coming can think now about what would happen if it materialized in their market. What would the impact be? How could they profit?

“Then, you’re a step ahead of the game,” Eichberger said.

Case in point: Growth in car-sharing raises questions as to how these services will impact not only demand for fuel, but also access to gas stations. To that end, BP has various pilot programs around the world analyzing how to approach car-sharing and its likely impact on the future.

“One of the big issues is the fleet. The fleets will be the customer of the future, probably more than individuals,” Williamson noted. “That has a whole other layer of implications with respect to where would you want to fill up? How would you want to charge the vehicles? What locations would you use? What is the role of convenience in that context?”

“A long-term trend, but one that is going to be quite significant,” he said.



FINDING THE CURRENT

Electric vehicle charging stations are making their way to convenience stores, as early adopters take advantage of installation incentives *By Tammy Mastroberte*

IT WAS A RECORD YEAR for new car sales in 2016, with 17.6 million cars and trucks sold, but electric vehicles (EVs) only made up 0.5 percent of that total. It's possible that the market may not really feel the impact of EVs until after 2035.

Electric vehicles, which include pure electric, plug-in hybrid and traditional hybrid vehicles, could represent 35 percent of new car sales by 2035, John Eichberger, executive director of the Fuels Institute, told *Convenience Store News*.

Still, that would be only 8 percent of the cars on the road, he explained. "Even if 30 percent of new cars sold last year were electric, it would be 4.5 million vehicles in a pool of 250 million total cars on the road. That's a drop in the bucket," he said.

In no way, though, does the slow growth rate mean EVs are not relevant in today's vehicle market, or in the convenience store market.

In fact, many c-store retailers — Sheetz Inc.,

Maverik Inc., OnCue, QuickChek Corp., Spinx Inc., Alimentation Couche-Tard Inc. and BP plc — are dipping their toes into the EV waters and installing charging stations now, with the help of incentives from car companies and local government agencies that either cut the costs or eliminate them entirely.

"The theory is sound: If EVs are coming, why not be the first to market and be recognized as a leader?" Eichberger said. "Every electric vehicle has a computer in it with stations that offer electric charging stations, so why not be on that list? Then, as it grows, your company will have the reputation for offering it, so it's a competitive advantage."

He recommends c-stores install EV charging stations in new builds first, rather than doing construction on established locations, due to the costs. The most expensive part of installing charging stations is drilling into the concrete to run the power lines to the EV parking spaces, and building a power panel to handle the project.

"This conversion could cost \$75,000 but when building it at a new site, it would only be around \$5,000," Eichberger explained.

Many of the early adopters in the c-store industry are working with car companies or other groups that are offering incentives to install and run the charging stations, but these incentives may not be around in the future.

"If someone is offering you money to do it now, it's a good idea because the money might not be there in five years," Eichberger said, noting that Volkswagen's Electrify America is investing in charging stations as a result of a settlement with the Environmental Protection Agency, and both Nissan and Tesla are offering incentives as well.

Striking While Hot

While Sheetz and QuickChek are two chains partnering with Tesla Motors to install Tesla Superchargers at select locations for its Model S sedan and Model X sports utility vehicles, Stillwater, Okla.-based OnCue found a more local partner.

OnCue, which operates 75 OnCue Express locations, partnered with



Oklahoma Gas and Electric (OG&E) to install Level 3 electric charging stations at two OnCue interstate locations in The Sooner State. Both charging stations were paid for by OG&E and are currently offering free EV charging to the public.

Scott Minton, OnCue's director of business development, said OG&E approached the company about three years ago asking if this was something of interest. Back then, it wasn't. However, now, OnCue wants to see what the chargers will require and if people will be looking to c-stores to provide this service, so they accepted the offer — with the costs covered, the electricity provided for free, and shared data received regularly.

"We get shared data on who is using them, how much they use and how often, so we can use the data for the future if we decide to install more," Minton said.

Monthly reports come from a software program called Greenlots. The plan is for OG&E to eventually turn ownership of the equipment over to OnCue and start charging for the electricity. Right now, it remains free for customers. The chargers offer two different nozzles and allow customers to charge all types of EVs, except for Tesla vehicles.

"Tesla requires a different nozzle, but some Tesla owners have this nozzle in their cars so they can charge," Minton pointed out.

Like OnCue, Maverik is also collaborating with local partners. In August 2017, Maverik announced plans to install two fast-charging stations from ChargePoint at stores in central and southern Utah, and the chain already has plans to install three more. The installations are part of a partnership with Rocky Mountain Power, the Governor's Office of Energy Development, Utah Clean Air and the Mighty Five Electric Vehicle Corridor.

"The state wanted to electrify the 115 Corridor, and we are getting subsidies and rebates to install them as part of the deal," said Maverik Chief Financial Officer Andre Lortz.

There is a fee for the public to use the charging stations — estimated to be around \$10 to \$12 for a quick charge and \$18 for a longer charge, according to Laura Nelson,



executive director of the Governor's Office of Energy Development.

"There is a connection fee, and a fee based on kilowatts pulled. We have a Level 2 and Level 3 charger at each station. One gives you 12 times as much power as the other one," Lortz explained.

Is It Worth It?

Since installing the electric chargers starting in late 2016 and the first quarter of 2017, OnCue reports that it continues to see customers using them.

EV chargers are usually turned on using an app on the customer's smartphone, vs. inserting a credit card at the gas pump. Users create an account, and data is collected on how long they charge for and the kilowatt hours consumed.

"I can see how many unique users per month and, in a week, I am getting about 10 users right now," Minton shared. "Six or seven are unique [users], while the others are coming multiple times."



ming. The plan calls for 20 to 30 locations in the next five years — all in partnership with Rocky Mountain Power.

There are currently four options for EV chargers on the market today:

- **Level 1** is designed for someone's home and uses a normal electric outlet. This takes between 12 and 18 hours for a full charge;
- **Level 2** is also an option for homeowners, but uses a 220-volt plug, similar to what would be used for an electric dryer in the home. This will charge in four to six hours, and is designed for a workplace.
- **Level 3** charges up to 80 percent in 30 to 45 minutes, and is the fastest available that is not designed for Tesla; and
- **Tesla** has its own Level 3 charger because it has a larger battery.

If retailers want to take advantage of dollars available in their market to install the chargers, Minton believes it's a good idea. "But don't make it part of the bottom line yet because you won't be making money from it at this point," he advised.

He foresees the real traction happening around 2025. "It's coming," he added. "Then, year by year, the numbers will be growing. If you look at some European nations, they will not allow traditional gasoline vehicles on the road by 2025."

Currently, Oklahoma (and 19 other states) do not allow stores to sell electricity, but OnCue is working with lawmakers to come up with a solution to justify bringing in the electric chargers and making money on them. It certainly won't outpace gasoline sales, but it will offer stores a new stream of income in the future, Minton said.

"I don't see an industry impact where electric vehicles will cause a decrease in gallon sales until 2030 and, in some areas, it may be sooner," Eichberger concluded.

“**If EVs are coming, why not be the first to market and be recognized as a leader?**”

— John Eichberger, Fuels Institute

The average charge time is around 30 minutes, with the majority of users charging their EVs to roughly 60 percent and then leaving, Minton said. The way the chargers work is they charge quickly to 80 percent and then slow down as the charge reaches 90 and 100 percent. Many stop around 95 percent because it's better for the battery health.

"There is a high ratio of people charging who come inside the store," noted Lortz of Maverik, which has consistent customers who come to charge up once or twice a week.

Maverik is now working on a five-year plan to extend charging stations from its home state of Utah into Idaho, Nevada and Wyo-



ATTUNED TO ALTERNATIVE FUELS

Consumers' growing knowledge about fueling options is a driving force By Chelsea Regan

IF 2017 WAS THE YEAR OF RETAILERS' slow but sure embrace of alternative fuels, like E15, 2018 is likely to be the year that consumers fuel further expansion by choosing them at the pump.

Growth Energy Vice President of Market Development Mike O'Brien sees consumers' growing knowledge about alternative fuels as a driving force for alternative fuel adoption. Growth Energy, based in Washington, D.C., is a trade association working to advance pro-biofuel policies and expand consumer access to higher blends of ethanol.

"I think consumers in general are more attuned to the idea that their purchasing decisions can not only offer them a better deal, but have societal benefits as well," O'Brien said. "So, I think that

motivation is behind the fact that consumers are embracing E15 in particular."

E15, a higher octane fuel consisting of 15 percent ethanol and 85 percent gasoline, typically saves consumers up to 10 cents per gallon and is the most tested fuel in history, according to O'Brien. "It also allows [consumers] to make a better choice for the environment and oftentimes supports American jobs. Those are important attributes for today's consumers," he added.

Lance Klatt, executive director of the Minnesota Service Station & Convenience Store Association (MSSA) — which offers its members the Minnoco brand of alternative fuels, including E15 and biodiesel, and flex-fuels like E85 and E30 — believes alternative fuels have a bright future in

the fuel retailing industry today and tomorrow. “The demand is there,” he said.

E15 sales at Minnoco dealers and MSSA member sites are looking very strong so far in 2018, according to Klatt, who was honored as *Convenience Store News’* 2017 Fuels Leader of the Year.

With more retailers offering E15, there is now a larger demand for the product from consumers, he explained. Currently, all Minnoco sites are offering E15, which represents more than 50 percent of the overall fuel sales at certain sites. Klatt predicts that in five to 10 years, E15 will replace E10, otherwise known as 87 octane.

“You’re offering a higher octane at the same price or lower price to the consumer,” he said, citing price as one of the foremost advantages of E15.

good indication of where things are going, according to Growth Energy’s chief.

Pete Davis, founder and CEO of GreenPrint Corp., which licenses its reduced fuel emissions program to convenience store chains, believes “the only reason we’re talking about alternative fuels is because of the emissions issue and climate change debate.”

He says his company — which has reduced-emissions fuel programs in place with 7-Eleven, Alon, Ricker’s, Twice Daily and more — is working to address the climate change issue now, with the same vehicles, same fuel, same customers, and no capex.

“It’s a hot topic and we have an easy-to-implement, win-win solution that’s not a silver bullet, but a bridge to whatever the future holds for our industry in 20 to 30 years,” Davis said. **CSN**

“E15 is taking off with consumers wherever it is available and becoming their go-to fuel.”

— Mike O’Brien, Growth Energy

“[Its] biggest selling points are: higher octane, cheaper or same price as 87 and, of course, supporting our local farming communities and economy,” said Klatt. “Most of our ethanol is produced and purchased in Minnesota or on the Iowa/Minnesota border. ‘Buy local.’”

While Klatt has seen the potential for E15 in Minnesota, O’Brien has had a front-row seat to watch as the alternative fuel sweeps the nation — a turn of events he attributes to two things: retailers with an eye on the future, and value-minded consumers.

“E15 is taking off with consumers wherever it is available and becoming their go-to fuel. In just three months, American drivers surpassed another billion miles on E15, putting it at more than 3 billion miles today,” said O’Brien. “At the forefront of this incredible growth are forward-thinking retailers that have figured out that E15 is smart business, and consumers who have come to rely on the better value proposition E15 presents. It’s a win-win on both ends, and that means E15’s growth is only going to continue.”

In 2017, the number of retail sites offering E15 doubled for the fourth year in a row, so that’s a

The Hardest Job in Retail

PLENTY OF CEO'S COULD CLAIM TO HAVE THE HARDEST JOB IN RETAIL, BUT NONE FACES THE **UNIQUE SET OF CHALLENGES** AHEAD OF **SHELL RETAIL EXECUTIVE VICE PRESIDENT ISTVÁN KAPITÁNY**. > By **Mike Troy**

Future proofing any retail business is a tall order these days given the pace of technology driven change and rapidly evolving consumer preferences. It is especially complicated for global energy company Royal Dutch Shell and its expansive Shell Retail Operation led by Executive Vice President István Kapitány. The 30 year Shell veteran leads a team that oversees a global network of 43,000 locations in 80 countries with 500,000 employees. To add an extra layer of complexity, Shell's operating model includes a mix of company owned, dealer owned, wholesale and licensed stores that varies by geography. Shell's iconic logo is already found on more locations globally than Starbucks or McDonalds and the company has ambitious expansion plans to execute at a time when the internal combustion engine is under assault.

That combination of scale and complexity against a backdrop of societal concerns would make Kapitány's job hard enough, now throw in a lofty profit improvement goal. Kapitány has until 2025 to increase the profit contribution of Shell Retail's non-fuel business to 50% from a figure well below that currently. The company doesn't disclose the actual number but Kapitány concedes the profit goal is aspirational. He also notes the company is almost at the 50% goal in some countries, so he knows it is doable, even if it has a long way to go in a market like the U.S.

"We are always adapting our retailing capabilities to the changing world and believe it is a great opportunity for us because of the scale and size of the business," Kapitány said. "Some markets are close to the 50% goal and some are far away, but one of the benefits of Shell's global scale is that we can learn from each other. Whatever works in one country we can transfer that knowledge to another country."

For example, the company operates a service oriented concept called Shell Select in The Netherlands that is comparable to the highly regarded Wawa convenience stores in the U.S. Shell's operating model in the U.S. is different than The Netherlands but the company is looking to make changes that would facilitate expansion of the Select concept in the U.S.

"I would say that Shell Select in The Netherlands is kind of like the top end food and coffee convenience place to go in the market, similar to a Wawa. We're looking at how we bring that Shell Select concept to the United States," Kapitány said.

That's an advantage Shell Retail has over some U.S. only retailers, many of whom have a broader product offer than Shell, and its speak to the attitude required of C-level executive looking to future proof their business. Doing so requires peering into the future further than others and imagining possibilities. Most U.S. retailers did a poor job of this 15 years ago when it came



▲ Gasoline isn't going away anytime soon, but Shell Retail is applying a fuel agnostic approach as it looks at long term mobility trends.

to e-commerce and recognizing the huge digital shifts changing how shoppers interact with retailers and brands. They have been trying to catch up with shoppers ever since. Royal Dutch Shell and the Shell Retail division don't want to make the same mistake. That's why the company openly talks about the need to transform its retail business, is aggressively expanding new product and service offerings, experimenting with technology and preparing to offer a broad range of fuel types that will power vehicles in the future.

WHERE THE GROWTH IS

The Shell brand has a dominant presence in market like the U.S. with 14,000 locations, Brazil (6,000), Japan (3,300) and Germany (2,000), but in some of the largest markets in the world the brand is just getting started.

"The United States, Brazil, Japan, Germany are already very, very strong, and we would like to be building our Chinese, India, and Indonesian, Russian and Mexican footprint to similar levels. We are working to grow them fairly quickly," Kapitány said.

It has a long way to go. In China, there are only 1,200 Shell locations and there are only 100 sites in India. Russia has several hundred locations and the first Shell branded location recently opened in Mexico. As Shell grows its global footprint the company is being fuel agnostic and embracing the role progressive societal forces are placing on the company regarding its environmental impact.

"We're very keen now on electric charging," Kapitány said. "We believe that as the number of electric cars increase high powered electric charging will grow and the time required for electric recharging will come down significantly to around nine or ten minutes."

Kapitány sees that as a fantastic opportunity for Shell because the user experience will be comparable to filling up with gasoline today.

"We see an amazing opportunity for us to participate in the change in mobility industry and the world, as we're going forward. It is very clear to all of us that an energy transition



▲ To stay connected to retail operations, Shell Retail EVP István Kapitány and his 120-member executive team work full shifts in the field every quarter.

is underway for mobility. It will not change from Friday to Monday, but it will change. It needs to change, and it must change, and we would like to be playing our part in the change."

The big drivers of change are governments around the world lining up against internal combustion engines and rapidly growing consumer acceptance of electric vehicles. Various edicts from the United Kingdom, France and China are designed to curtail the use of internal combustion engines and some automakers are embracing the shift. Hybrids and electric vehicles have improved dramatically and are getting better all the time with high end models offering amazing performance. Tesla offers a version of its acclaimed Model S that costs upwards of \$100,000 and is scary fast, capable of 0-60 miles per hour in 2.5 seconds. Tesla's mass market move came this summer with the introduction of its lower cost Model 3. By year end, the company expects to be manufacturing 5,000 Model 3s per week in the U.S. and said it will double that capacity in 2018.

While Tesla and its high profile founder Elon Musk command a lot of attention, other manufacturers have made electrification moves of their own. Nissan earlier this year sold its 250,000th electric vehicle, the Leaf, earning it the distinction of America's best-selling electric vehicle. A new version of the vehicle is due this fall. Meanwhile, an automotive press long enamored with all things internal combustion, has embraced electric vehicles. When the Chevy Bolt EV was named Motor Trend's 2017 Car of the Year the publication gushed that,

Kapitány concedes the profit goal is aspirational, but notes the company is almost at that point in some countries so he knows it is doable, even if it has a long way to go in a market like the U.S.

“I absolutely believe that Shell fuels are different and better than any other fuels.”

“the groundbreaking Chevrolet Bolt EV is the car of tomorrow. Today.” The Bolt’s combination of range (238 miles) and priced (less than \$30,000 when adjusted for a \$7,500 federal tax credit) has made just about every other electric vehicle on sale obsolete, according to Motor Trend.

One of the most significant electrification moves will come in 2019, when Volvo Cars CEO Håkan Samuelsson has drawn a line in the sand stating that every car the company makes will have an electric motor.

“This announcement marks the end of the solely combustion engine-powered car,” Samuelsson said. “Volvo Cars has stated that it plans to have sold a total of one million electrified cars by 2025. When we said it we meant it.”

Registrations of electric cars worldwide hit a new record in 2016, with more than 750,000 unit sold as sales advanced 40%, according to an organization known as the Clean Energy Ministerial. The group consists of government members from 10 countries (Canada, China, France, Germany, Japan, the Netherlands, Norway, Sweden, the United Kingdom and the United States) and recently set an ambitious goal to promote an electric vehicle penetration rate of 30% penetration by 2030. If that figure is to be achieved it will require changes to the refueling infrastructure, creating new opportunities for Shell Retail and others. The electrical infrastructure in the U.S. is will get a huge boost in the coming decade thanks to a bizarre turn events. After Volkswagen Group was caught cheating on emissions one component of a lawsuit settlement involved creation of a subsidiary called Electrify America (EA). The Reston, Va.-based entity plans to spend \$2 billion over 10 years to build out and strengthen the zero emissions vehicle (ZEV) infrastructure across the United States. EA recently selected JLL, one of the nation’s largest commercial real estate firms, to identify and provide site feasibility studies for the installation of fast charging sites along high-traffic highway corridors and community-based charging locations in 11



▲ In her role as Vice President of Retail for the Americas, Sidney Kimball oversees a U.S. network that includes 14,000 Shell branded locations.

metropolitan areas in the Northeast from Boston to Seattle, across California, and in Texas and Oklahoma.

“Electrify America’s investment in zero emission vehicle infrastructure is the largest of its kind ever made and will revolutionize charging infrastructure in the U.S.,” said Walter Wahlfeldt, an executive vice president with JLL. “We’re currently looking for accessible and regularly trafficked real estate locations that support drivers for the long-term and will keep the network of charging stations sustainable. The stations are brand neutral and are designed to service fast-charge capable EVs now and into the future.”

The creation of a more accessible charging grid could be a boon for all types of retail uses since Electrify America will install, operate and maintain chargers at its expense. JLL is initially seeking 450 sites for 2,500 universal chargers at locations such as malls, restaurants, retailers, gas stations, mixed-use developments and hotels. EA plans to make its investment over four 30 month cycles with \$800,000 million spent in California and \$1.2 million spent elsewhere in the U.S. It is the largest investment of its kind and designed to promote zero emission vehicle adoption by reducing charging anxiety and increasing convenience.

LOWER FOREVER

If Kapitány has the hardest job in retail (*Retail Leader’s* assertion, not his) he certainly doesn’t act like it and isn’t an obvious choice for that distinction given his relative anonymity in U.S. retailing circles. Someone like Sears Holdings CEO Eddie Lampert has what many consider an impossible job. He’s been trying to turn Sears and Kmart around since he engineered a merger of the floundering retailers in 2004. Another option could



▲ A prototype Shell station set to open in the U.S. in 2018 will be modeled after European outlets that feature a range of fuel types, expanded product offerings and foodservice.



◀ Shell Retail's goal of non-fuel categories accounting for 50% of profits means it needs to expand assortments and sell a lot more food.

be Toys “R” Us CEO Dave Brandon. He joined the company a little over two years execute a turnaround, but instead filed for bankruptcy in September and heads into a holiday season facing intense competition from Walmart, Amazon and Target. Jeff Genette became CEO of Macy’s in early 2017 and is executing a wide range of strategies designed to prove a place remains in the retail landscape for a mall-based, mid-tier department store operator. Then there is Kroger CEO Rodney McMullen. As head of the nation’s largest supermarket chain, he’s dealing with intense price competition, expense challenges of a unionized workforce and a massive share price decline caused by Amazon’s acquisition of Whole Foods.

Each of these executives face considerable challenges, but their core offerings of food, consumables and clothing are necessities of life. So is fuel, but demand for fuel and the types of fuel are expected to change dramatically in the coming years. People will continue to eat and wear clothes in the future, but regularly filling up a car with gasoline is a behavior that is expected to diminish greatly and who knows what happens to the price of oil. Shell doesn’t. That’s why the company is running its overall business with a “lower forever” attitude toward oil prices.

“We do not want to have the mindset that higher oil prices are around the corner to help us out. In terms of practical planning, we take a very conservative outlook,” Shell CEO Ben van Beurden told Bloomberg after the company released its second quarter results.

The reality is no one really knows what the price of oil will be in 10 or 20 years. The annual U.S. Energy Information Administration offers a wide range of estimates in its annual report released in September that assesses long-term world energy markets. EIA modeled projections of what may happen given certain assumptions under different scenarios if the price of North Sea Brent crude in 2016 dollars reaches \$43 a barrel by 2040, compared with \$109 a barrel in the reference case and \$226 a barrel in the high oil price case. The use of refined petroleum and other liquid fuels in the transportation

sector is forecast to increase through 2040, but their share decreases from 95% to approximately 88% as the use of alternative fuels increases, according to EIA. Motor gasoline, including biofuel additives, remains the primary fuel for transportation, accounting for 36% of the world’s transportation-related energy use in 2040, according to the group.

Relying on the government to forecast the future, especially something with the historic volatility of oil prices, is not a good strategy on which to stake the future of a multi-billion business. Lower forever may not come to pass and the pace of vehicle electrification could happen much sooner. Shell CEO van Beurden has said his next vehicle purchase will be electric. Either way, Shell and its global retail chief Kapitány and U.S. retail head Sydney Kimball are doing the hardest thing there is to do in retail: reposition the business to capitalize on growth opportunities while maximizing sales and profit performance in the current landscape. For example, Kimball’s single biggest priority in the U.S. is promoting increased loyalty to the Shell brand through the company’s enriched Fuel Rewards program. Launched on June 5th, Shell expanded the existing program to give Fuel Rewards members instant gold status for six months which allows them the perk of a five cent per gallon price reduction.

The program and Shell’s high end fuel branded as V-Power are near and dear to Kimball’s heart. She served as the company’s premium fuels marketing manager several years ago and oversaw the global rebrand to V-Power and chafes at the notion that gas is gas.

“I absolutely believe that Shell fuels are different and better than any other fuels. In my role as premium fuels manager, I oversaw research and development. Our claims about having the best cleaning power, it really helps in terms of engine wear,” Kimball said.

And when it is time to fill up, Shell Retail is experimenting with technology and partnering with car makers to transform the experience.

“We’re testing a mobile app that allows you to buy your fuel from the car and not have to pull out cards,” Kimball said. “We’re on that journey and there is optimism that we’ll be first in some areas and fast followers in others.”

Kapitány doesn’t worry much about filling up these days. He walks to work at Shell’s London headquarters, a city with stringent pollution regulations designed to curtail vehicle use in the urban core. It is the type of commute that allows Kapitány to think differently about the future of mobility, energy and convenience retailing. **RL**

6TH ANNUAL
CUSTOMER ENGAGEMENT
TECHNOLOGY STUDY

Targeting Experience

Hotels and restaurants take aim at customer experience with hyper-mobile, personalized strategies.



INTRODUCTION

CUSTOMER ENGAGEMENT TECHNOLOGY STUDY 2017

A Moving Target: Customer Experience Goes Hyper Mobile & Personalized



The convergence of mobile and social has been at the epicenter of the customer engagement technology (CET) movement, changing the very nature of consumer behavior and modern service delivery in hotels and restaurants. More recently, the emergence of promising, new technologies such as voice-activated, natural-language intelligent systems (such as Angie and Amazon's Alexa), wearables, virtual and augmented reality, chatbots, and artificial intelligence have captured industry headlines. Clearly, this is an exciting time to be focused on hospitality technology, but to many, it is also a worrisome time because of the potential disruption these new technologies will undoubtedly bring, not to mention the level of investment and preparation required in order to capitalize on their full promise.

One of the distinguishing characteristics between a service business and a manufacturing one is the concept of "prosumption." This refers to how consumers play a key role in the development and delivery of a service while simultaneously consuming that service. As CETs in general and mobile technologies in particular become more prolific, so do the opportunities to co-opt and engage consumers in the service creation and delivery process. Thus, prosumption is transforming the industry, and as such, it requires new thinking when architecting guest experiences and training employees to deliver exemplar, personalized service, especially when many of the touch points are either facilitated by or completely handled through guest-facing (and sometimes guest-owned) technologies with the guest driving the experience.

Given that sound CET strategy involves integrating business practices and blending human and technology solutions, the CET movement is putting customer experience management (CXM) at center stage. The goal of CXM is to optimize interactions from the customer's perspective and, as a result, deliver effective service and foster customer satisfaction, loyalty, and advocacy. It is a strategy that requires goals-setting, process change, and many technologies to accomplish.

This is vital to ensure an experience that will captivate and delight customers, create value, and ultimately improve the bottom line. •

Taking Aim at the Experience

POKEMON GO,

BULLSEYE: *The location-based augmented reality game is a CET win because of its novelty, interactivity, addictive nature, and ability to appeal to and engage individuals from different customer demographics.*

MISSED THE MARK:

The benefits were short-lived as interest in the game faded.

WARNING: *It's difficult to implement solutions that are sustainable, contribute meaningfully to customer experiences, and generate profits.*

STARBUCKS MOBILE APP

BULLSEYE: *Was well-received by customers and became the industry frontrunner.*

MISSED THE MARK:

As customer app usage rose and mobile orders began arriving in stores, operational issues and customer complaints increased due to order errors, long wait times, and other problems.

WARNING: *Technology implementation can change the operational flow and rhythms of the business. Designing the appropriate solution requires a holistic approach. Consider: strategic objective(s) technology to be deployed; people using it; business or service delivery processes it is meant to support; operational flow; and performance metrics to monitor effectiveness.*

ABOUT THE STUDY

CUSTOMER ENGAGEMENT TECHNOLOGY STUDY 2017

Restaurants, Hotels & Guests Weigh in on Engagement Tech for 2017

To evaluate the state of customer engagement technology (CET) and customer experience management (CXM), the *Hospitality Technology* subscriber base was queried on a broad range of CETs and CXM-related topics. This diverse sample of hotel and restaurant executives includes owners, managers, sales and marketing professionals, and technology professionals from corporate, franchised, professionally managed, and independent hotels and restaurants across all lodging and restaurant industry segments.

To put things into perspective on the state of technology implementation, operators identified current and planned rollouts for 12 months out.

Focusing on the consumer and the experience will be the competitive differentiator in hospitality. Evaluating customers' needs and how they want to interact with a brand through the smart analysis of customer data will be the way brands distinguish themselves. To help operators iden-

tify what guests want, for the second year in a row, consumers, obtained through a research panel, were queried to get a better understanding of technology preferences and functional needs when researching, selecting, and patronizing hospitality businesses. The responses from these 515 hotel and restaurant guests highlight the gaps that exist between CETs that consumers value and what brands are actually offering or plan to implement.

The American consumers targeted for the survey had stayed at a hotel (and by default dined in restaurants) over the previous 12 month period and included 133 men and 382 women. Respondents' ages varied including: 18 to 39-years-old (37%), 40 to 51-years-old (23%) and 40% were 52 or older. The majority of respondents (64%) had stayed at hotels two to four times in the last year, followed by five to six times (18%) and 12% had done so more than seven times. •

RESPONDENT PROFILES

HOTELS

Economy	7%
Mid-scale	31%
Upscale	47%
Luxury	15%



RESTAURANTS

Quick Service	30%
Full Service/Fine Dining	14%
Fast Casual	25%
Full-Service/Family Casual	30%



CONSUMERS

BY AGE

18-39	37%
40-51	23%
52-70	34%



BY GENDER

Female	74%
Male	26%



***** HOTEL

TYPES OF HOTELS FREQUENTED

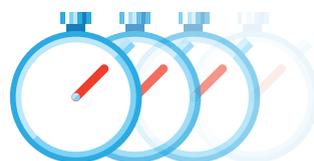
Economy	12%
Midscale	52%
Upscale	33%
Luxury	3%

TYPES OF RESTAURANTS FREQUENTED

QSR	25%
Fast Casual	20%
Full-Service (Family Casual)	47%
Full-Service (Fine Dining)	8%

FREQUENCY OF DINING OUT

Less than 4 times a month	37%
4 to 7 times a month	36%
8-11 times a month	12%
12+ times a month	15%



RESTAURANT REPORT

CUSTOMER ENGAGEMENT TECHNOLOGY STUDY 2017

Data & Digital Touchpoints Empower the Dining Experience

Restaurants remain among the most complex businesses to run, and because of technology, that complexity continues to grow. The year 2016 was a tumultuous one for the restaurant industry. Several well-known restaurant companies filing for bankruptcy, multiple mergers and acquisitions, plus headlines that thrust the restaurant industry into the political spotlight with labor and wage debates punctuated the year. Amidst all of this, there were ongoing commitments to innovate and move forward on a number of key technology initiatives. These activities underscore just how critical technology is to the competitiveness of the restaurant industry. It is not only transforming the guest experience but also changing the economics of the business.

Over the years as we have tracked the evolution of mobile, social, and their convergence, we have witnessed how the industry can serve as a bellwether in areas such as social media, gamification, mobile ordering and payments, consumer reviews, and digital signage. This year, we continue to see notable trends that will shape the future of the industry, including increased commitments towards and investment in loyalty programs, CETs, and CXM.

According to *Hospitality Technology's 2017 Restaurant Technology Study* the average annual restaurant technology budget in 2016 represented

2.6% of sales, and the forecast for 2017 suggests that technology spend will increase for at least 58% of the restaurant operators surveyed. Additionally, 64% of restaurants anticipate upping tech spending for CRM/loyalty, digital and mobility software, increasing budgets by 3.6%.

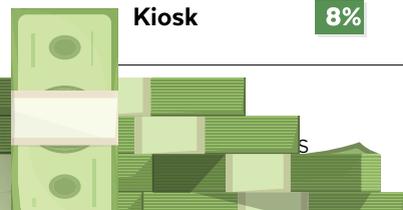
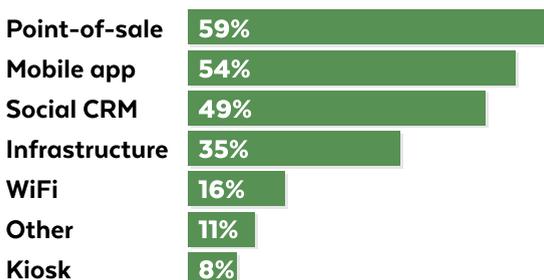
To add context for this study, *HT* queried operators as to where funds for customer experience management are most often allocated. For 59% of respondents, the lion's share of CXM spend is consumed by point-of-sale followed by mobile apps (54%). For fast casual restaurants, these are reversed with the primary emphasis being placed on mobile (87%) followed by point-of-sale (69%). There was a more even distribution between these two areas among full-service family/casual restaurants.

When examining the total respondent file, 49% note that CXM investment is earmarked as social CRM initiatives while infrastructure took 35%. Finally, 16% of respondents reported investments in WiFi, and 8% indicated kiosks as an important area.

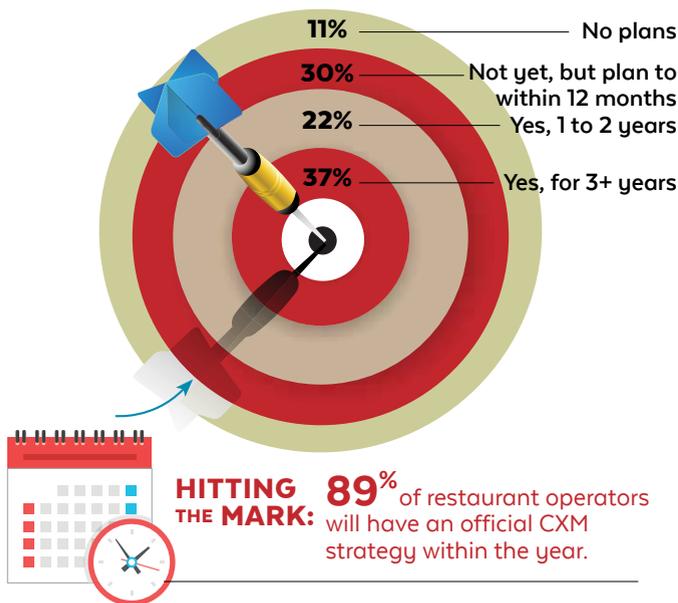
Examining how CXM is being funded by IT budgets helps paint a better picture of what restaurants are prioritizing in customer-facing strategies. With this clear emphasis being placed on POS and mobile apps, it will be vital for restaurants to find ways to differentiate those touchpoints. Removing pain points at the point of sale and identifying features of mobile apps that will encourage guests to keep them on their phones, will take precedence as operators look to ID returns on CXM strategies.

The industry's strategic dependence on technology is very real, and the expectations (and pressure) for it to generate positive value are high. Restaurateurs typically invest in technology to achieve business efficiencies, reduce operating overhead, attract customers, increase sales, and win customer loyalty. While these will always be important priorities, there has been a salient shift towards more focus on customer engagement and CXM, especially in the quick-service segment with companies like Starbucks, Panera Bread, and Domino's Pizza leading the way through many of their mobile and social media initiatives. This fact is represented in findings from *HT's 2017 Restau-*

BUDGETING FOR CXM: WHERE DOLLARS ARE ALLOCATED



RESTAURANTS EXECUTING CXM AS A STRATEGY



rant Technology Study, which revealed that for the first time in a decade, improving efficiency was unseated as the top strategic goal for technology rollouts being replaced by improving digital customer engagement.

Restaurateurs have long understood the importance of providing good service and offering quality food and beverages in order to create exceptional guest experiences, but now, they also understand that technology is an essential key ingredient to the formula for success. Fifty-nine

percent of respondents are actively engaged in CXM; of which, 37% have had CXM programs in place for three or more years and 22% have had a strategy for one to two years. The numbers are up markedly over last year and expected to grow. While last year's survey revealed a rather troubling stat that 59% of restaurants had not yet created a CXM strategy, this year that number tumbled to 41% and only 11% of restaurants say they have no plans to develop one, down from 21%.

To support CXM, 76% of restaurant respondents indicate that they are investing in technology and working diligently to create a single view of the customer across systems and channels. Additionally, two-thirds say they are investing in employee training and awareness programs and in customer loyalty/reward programs. Almost half of those surveyed are earmarking more funding to directly support CXM initiatives, and 38% are expanding staffing levels to dedicate more attention to managing the guest experience. These findings indicate that more emphasis is being placed on improving data quality and analytics than in previous years to create more personalization and promotions that are targeted to consumer preferences.

Responsibility for CXM resides with C-level positions. Within the restaurant industry, CXM is most often under the purview of the chief marketing officer, as reported by 40% of respondents. Approximately 41% of respondents say that either the chief executive officer or the chief operating

Restaurants Prioritize Data & Omni-Channel Loyalty

After investing technology and upping budgets for CXM these two areas saw the biggest jump in importance increasing 11%.

HOW RESTAURANTS SUPPORT CXM



RESTAURANT REPORT

CUSTOMER ENGAGEMENT TECHNOLOGY STUDY 2017



CXM BY LEADERSHIP ROLE

Chief Marketing Officer/Marketing Executive	40%
Chief Operating Officer/Operations Executive	25%
Chief Information Officer/Technology Executive	22%
Chief Executive Officer	16%
Cross-collaboration Group (heads of departments)	6%
Customer Service Executive	6%
No Strategic Owner	6%
Chief Digital Officer/Digital Executive	5%
Chief Experience Officer	2%

TARGETING TECH & MARKETING COLLABORATION

Marketing execs take responsibility for CXM initiatives by a far margin, but CIOs saw the largest uptick in CXM ownership with an 8% increase.



officer serves as the primary champion, whereas 22% reported that responsibility falls to the chief information officer. This latter finding reveals a noticeable increase from last year and indicates increasing recognition of the importance technology and the chief information officer play in overall business operations, success, and profitability of restaurants.

Insight & Investments: Analytics Represent Future of CXM

Based upon prior research on CETs and CXM, a list of 19 technology categories formed the basis of this 2017 inquiry. Restaurant executives were asked to reveal what technologies they are currently using and those that they plan to adopt in the next 12 months to interact with and serve their custom-

CXM TECH ADOPTION: 2017 INSTALLATIONS V. 2018 PLANS

● 2017 ● 2018



★ Top 5 Areas Poised for Growth in 2018

- Predictive Analytics **+57%**
- Personalized Offers **+54%**
- Location-based **+51%**
- Customer Experience Management platform **+51%**
- Comprehensive Mobile Experience **+46%**

★ Tech That Takes Aim at the Experience

Restaurants plan to target a second tier of "on-the-rise" technologies with adoption plans for each increasing 41 or 44% in 2018.

ers, facilitate order taking and payment processing, and indicate that restaurateurs are pursuing multi-year strategic CET plans, however, the anticipated 2017 adoption rates projected by last year's results were not achieved. Despite this, in 2017, restaurants intend continued investment to support and expand prior initiatives in order to build out more robust and comprehensive solutions to serve guests across all touchpoints and the entire guest lifecycle. The top five technology categories reported in 2017 are loyalty programs (54%), creating a comprehensive mobile experience for customers (41%), mobile payments (32%), implementation of a customer experience management platform (29%), and personalized offers based on guest preferences and/or prior purchase history (24%).

Adoption rates of the next tier of technologies are location-based and beacon technologies (19%), predictive analytics (17%), interactive digital signage (16%), omni-channel (14%), and the Internet of Things (IoT; 11%). Interestingly, 2016 survey respondents expressed plans to invest in these areas, but this year's findings, indicate that anticipated growth did not come to fruition. Projected investments could have faltered due to the trying year, as noted earlier, and being over-extended due to increased competition for market share and resources. In a case of eyes being bigger than stomachs, this is indicative of restaurants' wish lists being bigger than abilities and budgets allow them to deliver.

A number of technologies are still in their infancy. Early adopters report use of the following: kiosks to order and pay (8%), tableside ordering devices for waitstaff (8%), tableside payment devices for waitstaff (5%), augmented reality (5%), tableside payment devices mounted to tables (3%), virtual reality (3%), tableside ordering devices mounted to tables (2%), artificial intelligence and voice controlled de-

vices (such as Amazon's Alexa; 2%). Interestingly, tableside payment devices have not caught on in the United States at the same rate as we have seen elsewhere in the world, despite intensifying concerns regarding credit card security and the rise in popularity of the EMV chip standard.

While restaurateurs strive to be nimble, they are not always as agile as they should be when it comes to technology and based on what we observe in following other industries such as retail and banking. Sometimes, this is deliberate. For example, some restaurants have consciously chosen not to pursue the deployment of tableside ordering devices because customer research reveals that many guests seek a respite from technology while dining out. This is a noteworthy observation confirmed by consumer feedback gathered in this year's study, more on this later.

Looking to 2018, the top CETs to watch based on planned adoption are predictive analytics (57%), personalized offers based on guest preferences and/or prior purchase history (54%), implementation of a customer experience management platform (51%), location-based and beacon technologies (51%), creating a comprehensive mobile experience for customers (46%), mobile payments (44%), and omni-channel (44%).

Based on these findings, restaurant operators clearly recognize the significance of analytics for competitiveness, personalization, and relevance, particularly with respect to offering timely, customized, and context-specific promotions to influence guest loyalty and purchase decisions. They also understand the need for a capable platform that will support mobile apps, integrate loyalty programs and payments in order to create seamless guest experiences across all channels and touchpoints guests use.

EMERGING TECH WITH MOST POTENTIAL TO IMPROVE CX



11%
Robotics



15%
Virtual Reality



15%
Augmented Reality



20%
Wearables



24%
Artificial Intelligence (AI/Voice Control)



33%
Biometrics



63%
Interactive kiosks

RESTAURANT REPORT

CUSTOMER ENGAGEMENT TECHNOLOGY STUDY 2017

If restaurateurs follow through on stated intentions, we should see some notable changes next year. Specifically, CXM, mobile apps, personalized offers, mobile payments, and predictive analytics will overtake guest loyalty programs in terms of strategic significance. We can also expect IoT, omni-channel, tableside devices, artificial intelligence and voice-controlled devices (such as Amazon's Alexa), kiosks, and tableside payment devices to gain significant traction. Other emerging technologies to watch, based on survey responses, include biometrics, wearables, and robotics.

During the six years that we have been conducting this study, we have seen interest in kiosks ebb and flow, but are making a comeback now, especially in quick-serve and fast casual establishments. In fact, operators named interactive kiosks the top emerging technology with potential for improving customer experience by a large margin with 63% compared to the next selection (biometrics with 33%). Renewed interest this year can be attributed to rising labor costs associated with minimum wage hikes across the nation, increased costs for healthcare coverage, and the enactment of various state and federal regulations driving restaurateurs to seek cost-saving measures.

Additionally, consumers are much more accepting of and accustomed to using kiosks due to the technology's pervasiveness in other industries such as banking, retail, and travel. Kiosks empower customers and allow customers the abil-

ity to communicate and transact business in their native languages, helping to facilitate order taking, upsell customers, and increase the speed of service. By reducing lines and wait times, kiosks help restaurants increase guest throughput, which leads to increased traffic, higher sales, and healthier bottom lines.

To glean further insight into the use of location-based systems and beacons, restaurant operators were asked to identify how they are using the technology. The most common application is push marketing (51%); that is, offering special promotions and mobile coupons to guests in the immediate vicinity. Jumping from 32% in 2016's study, this narrowly unseated customer recognition upon arrival to a restaurant (49%) as the top use. Interest in location-based offers leapt 19% in one year indicating that restaurants are seeking ways to tie ROI directly to such initiatives. Mapping returns to technology is a common struggle with 42% naming it the top IT challenge.

Social media provides restaurants with a great way to connect with guests and offer promotions. Restaurants were asked to identify how they are using social media as a marketing tool to attract and engage guests and enhance their overall experiences. The restaurant industry tends to be more innovative and proactive in using social media than the lodging industry. The vast majority of respondents reported using social media to post and share pictures and videos (78%), promote special offers (68%), enable location sharing and check-in (49%), blog with guests (47%) and support contests (47%). Ultimately, social media is an important influencer for consumer behavior in terms of restaurant selection.

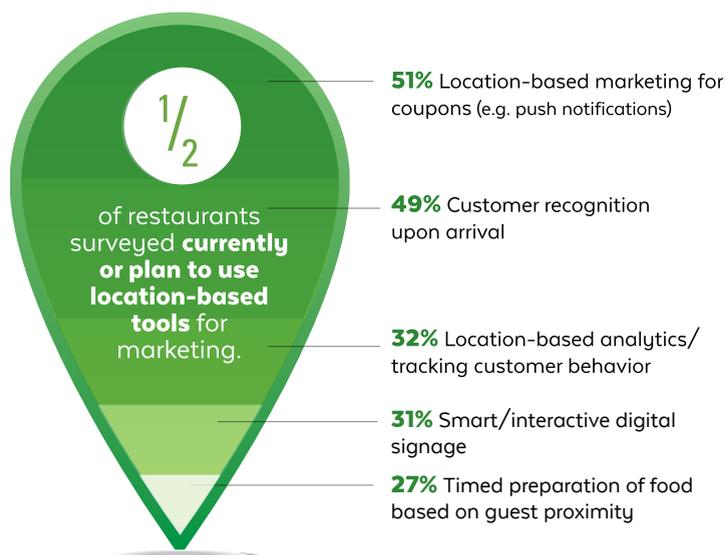
Gamification, though, was surprisingly low (14%), especially given how much Millennials and Gen Z tend to like competitions and credentials, even if they only for bragging rights. Three percent of respondents are experimenting with augmented and virtual reality, but these technologies are too new to create an informed assessment as to their true potential and long-term impact. It is also important to note that chatbots did not register in this year's study. We will continue to monitor these technologies in future iterations of this study to assess their significance and impact.

Meeting the Needs & Wants of the Mobile, Social Diner

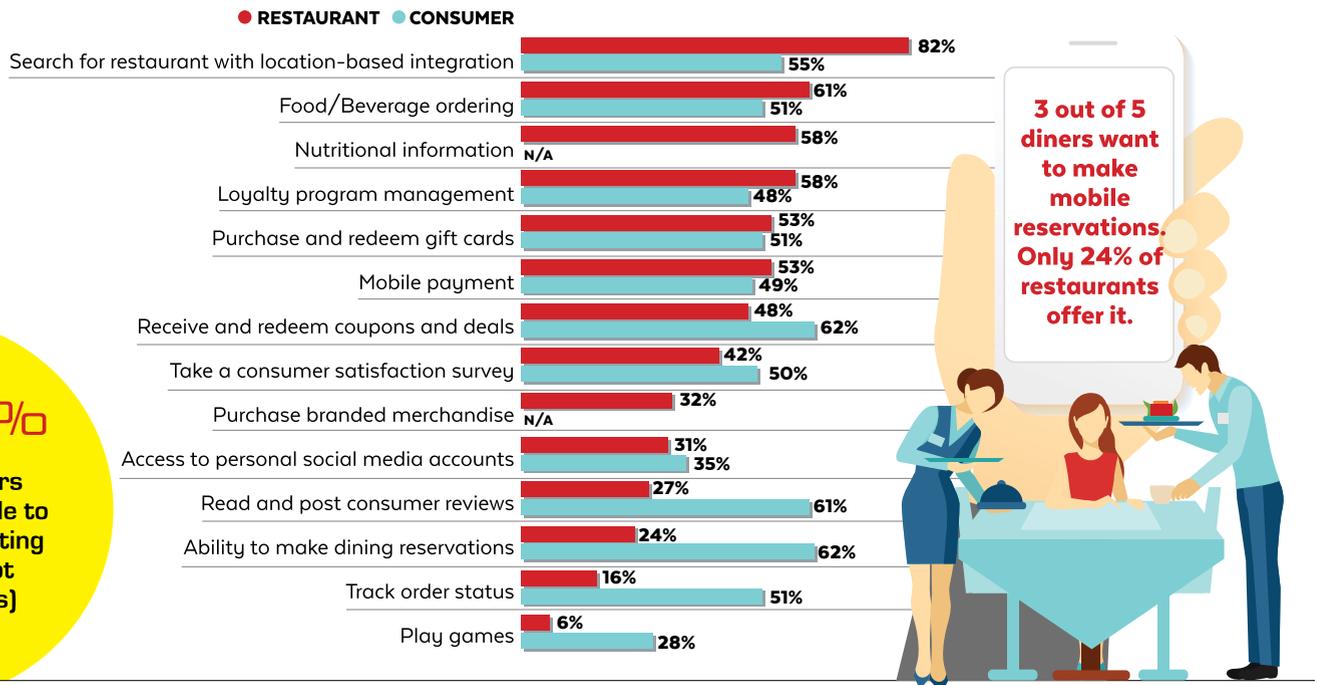
Today's consumers have become dependent on mobile devices for most daily activities, including



PRACTICAL APPLICATIONS FOR LOCATION-BASED TECH



MOBILE DIVIDE: WHAT DINERS WANT V. WHAT RESTAURANTS OFFER



shopping, travel, and dining. Restaurants have invested heavily in mobile strategies and continue to build out mobile apps. Restaurant respondents were asked to identify the mobile features they are using to serve guests. The applications that ranked at the top include: restaurant search with location-based integration (82%), food and beverage ordering (61%), loyalty program management (58%), menu nutritional information and disclosures (58%), gift card purchases and redemption (53%), mobile payment (53%), and coupon delivery and redemption (48%). There was a rather significant spike in nutritional information reporting. This is not surprising with the more regulations requiring disclosure and responsiveness to changing consumer dietary needs (for example, gluten-free).

The next tier of functionality includes the ability to purchase branded merchandise (32%), providing access to guests' social media accounts (31%), enabling guest access to read and post reviews (27%), and the ability to make dining reservations (24%). There seems to be very little interest at this time in providing guest entertainment (such as games; 6%) — much to the dismay of many children! There is also limited attention being given to adding mobile functionality to help guests track order status (16%). This is a feature that pizza chains have successfully adopted, but it is operationally challeng-

ing for other types of restaurants with more complex menus to implement. Despite the obstacles, more than 50% of consumers expressed a strong desire to have this functionality, particularly when ordering take-out and delivery, as they have grown accustomed to instant gratification.

The restaurant industry has made great technological progress during the period this study has been conducted in terms of technological infrastructure, WiFi availability, mobile app capabilities, social media usage, and relevant, personalized mobile promotions. At the same time, technological advances have made consumers more demanding. Therefore, we continue to monitor how well the industry is doing in meeting the needs and expectations of customers. To this end, we surveyed restaurant patrons as part of our study and looked for gaps, which represent opportunities for restaurateurs as they consider where and how to allocate their resources and attention going forward.

When making decisions as to where to dine, consumers report the top five influencers include: easy and convenient access to menus and nutritional information (70%); positive restaurant reviews and customer satisfaction ratings (68%); reliable and free WiFi (65%); ability to book reservations online (64%); ability to book reservations

RESTAURANT REPORT

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TECHNOLOGY INFLUENCING DINING DECISIONS

DINE IN:

Ability to preview menus & nutritional information	70%
Positive reviews and ratings online	68%
Free WiFi	65%
Ease of online reservation process	64%
Ability to make dining reservations from mobile device	53%
Ability to track order status	51%
Belong to restaurant's loyalty program	46%
Ability to pay for food via mobile device	46%
Feature-rich mobile app	46%
Ability to self-order at table	41%
Personalized communication based on prior history	39%
Mobile marketing/customized offers	36%

TAKEOUT/DELIVERY:

Ability to preview menus and nutritional information	69%
Positive consumer reviews	68%
Ease of online ordering process	65%
Ability to track order status	56%
Mobile ordering	55%
Mobile payment	48%
Feature-rich, useful mobile app	48%
Loyalty program	46%
Personalized communication based on prior history	40%
Mobile marketing/customized offers	35%
Social Ordering (Facebook Messenger other messaging tools)	30%



via a mobile device (53%). A second tier of desired capabilities further illustrate the desire of guests to be able to control the throttle of their dining experience. Among items in this tier include: the ability to track order status (51%), mobile payments (46%), and tableside ordering device (41%).

Surveying both the supply and demand sides of the equation, we summarize several important gaps that are worthy of note in this section. This information should be treated as constructive and must be reviewed in context to one's mission, type of restaurant, and target customer base. Nutritional information is of utmost importance to customers, and restaurant operators have indicated that this is a high priority. Yet, there are still many restaurants that are not meeting guest expectations and needs.

For full-service restaurants, guests are interested in the ability to book reservations online and via their mobile devices. However, many restaurants

do not allow this feature, and for some, it is mainly because they simply do not take reservations. They have made a conscious business choice. Knowing that the ability to book reservations is of value to guests, restaurant operators should consider the importance of this request in their specific contexts to see if it is feasible and appropriate (or not). Gaps are noted terms of specific functionality within mobile apps, especially when it comes to the ability to receive and redeem coupons, track order status, manage loyalty programs, and pay by mobile devices. Quick-service and fast-casual restaurants are more advanced when it comes to mobile payment because the set-up and service flow is more conducive than in sit-down restaurants, but sit-down restaurants can address this by adopting mobile pay-at-the-table solutions. Again, it is up to each restaurant to develop appropriate strategies to address these gaps, if they apply and represent pain points for their customers. •



Apparel™ 2018 TOP INNOVATORS

BY JORDAN K. SPEER, EDITOR IN CHIEF

By implementing unified enterprise systems for greater inventory visibility, wrangling algorithms in service of gathering business intelligence and offering personalization, eliminating time and waste by using 3D in design and development, continually fine-tuning apparel style, fit and performance, and much more, this year's crop of Innovators are stepping up to the plate to address and fulfill consumer demand.

AKR TEXTILES

Fall River, Mass. • www.akrtextileinc.com

Self-nominated

Although it's new to the United States, Tirupur, India-based AKR Textiles is no stranger to the apparel and textile industry. The family-owned business got its start farming cotton in the 1780s for the East India Company, when the country was under British rule. Textile mills and cut-and-sew apparel manufacturing followed. Fast forward to 1994, when it formed AKR and incorporated as a 100-percent export-oriented business, manufacturing garments for major global brands, including H&M, Tommy Hilfiger, Disney, Zara and Calvin Klein. Today, the company owns vertically integrated manufacturing facilities primarily in Asia and Europe, with more than 14,000 employees worldwide.

AKR is one of the largest dyers in South Asia (dyeing 50 tons of fabric daily), and over time, it grew increasingly concerned with the toll that the textile dyeing industry was taking on the environment. So it decided to do something about it. In 2008, AKR built a 100-percent zero-discharge dyeing facility. How does this work? Wastewater goes through reverse osmosis to remove chemicals. The clean water (about 80 percent of the total) is rerouted back into the dyeing process. Remaining water is evaporated from the resulting chemical sludge and the dried chemical waste is formed into small bricks that are then sent to cement factories and other chemical factories where they are used as one of the raw ma-

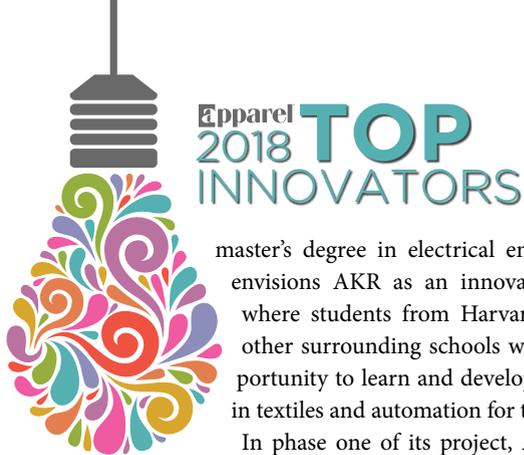
terials in the finished products. Voila! Zero discharge, zero waste.

Why don't all plants do this? Because it's very expensive. And unfortunately, today's typical effluent treatment plant (which comprises about 95 percent of the total) only captures about 70 percent to 90 percent of harmful chemicals used in dyeing, such as lead, mercury and arsenic, releasing the remainder into waterways.

"Many fish and other aquatic animals eat it, and many have died out because of this," says Lakshman Devarajan, director, North America. (AKR is also running more than 80 percent of its manufacturing on green energy.) "We spend more of our profits to protect our environment. Wherever we go, we follow the same policy. We recycle everything."

One of those places it's going is right here in the United States. AKR is currently working with local government in Fall River, Mass. — years ago a hotbed of textile and apparel production — in partnership with manufacturer Good Clothing Company Inc., to build a state-of-the-art cut-and-sew semi-automatic manufacturing plant. The facility, which will allow U.S. companies to produce closer to home, expects 100 employees on board by year's end. Lakshman, who has a





Apparel 2018 TOP INNOVATORS

master's degree in electrical engineering, also envisions AKR as an innovation incubator, where students from Harvard, Babson and other surrounding schools will have the opportunity to learn and develop next-gen tech in textiles and automation for the industry.

In phase one of its project, AKR will bring textiles from India, but the goal is to eventually make fabrics here too — using zero discharge. That will require a massive investment, so it will need huge order quantities. “By 2020, we anticipate enormous growth in the North American market, where manufacturing of goods is concerned. Globally, we are beginning to understand the negative impact that U.S. outsourcing has created, both in terms of the negative environmental impact and the loss of U.S. jobs,” says Lakshman. “We are excited to be a company leading the way back to a more balanced manufacturing eco-system and look forward to partnering with large U.S.-based vendors that want to make in America. We intend to go big and create a very positive impact.”

BROWNS SHOES

Montreal, Canada • www.brownsshoes.com

Nominated by: OrderDynamics

www.orderdynamics.com

Browns Shoes was founded in 1940 by Benjamin Brownstein with a single store on Ste Catherine Street. In 1959, Benjamin's son Morton Brownstein became the first North American retailer to travel to Italy and to bring Italian designer shoes to Canada.

He worked directly with the legendary Salvatore Ferragamo at his original store in Florence and was the first to bring Charles Jourdan, Bruno Magli and Rossi Moda to Canadian retail. Today, the third generation is in charge, and continues to focus on innovation, in

both fashion and technology. President Michael Brownstein (Morton's son) has expanded the chain to more than 60 locations throughout Canada, also launching a new chain, B2, focused on edgy street fashion.

In 2011, with its brick-and-mortar locations growing and e-comm business on the rise, Browns realized it needed to build a better omnichannel foundation. It invested in a new state-of-the-art distribution center, with a fully automated ‘intelligent’ distribution system comprised of 63 robots fulfilling both store and e-commerce

orders. With this system, products are now brought to its packing-and-shipping stations automatically and employees never have to move more than two steps to put orders together.

More recently, the retailer implemented a distributed order management (DOM) system from OrderDynamics, which includes a new order-consolidation capability that the tech provider built at the request of Browns Shoes. The feature solved a key challenge of omnichannel retailing by allowing Browns to transfer inventory from any location (store or DC) to another to streamline order fulfillment, says Alexandre Hubert, senior director of IT strategy and logistics. The capability allows Browns Shoes to include all order items in one package, improving customer service while also reducing waste and minimizing shipping expenses. If required, it also has the capability to force multiple shipments to the customer.

Additionally, Browns Shoes worked with OSF Commerce to interconnect the order management system (OMS) with Salesforce Commerce Cloud. The retailer also connected the OMS to all of its other retail systems to establish a single unified commerce solution that provides real-time online inventory visibility.

With its combined solutions in place, Browns has significantly reduced the chance of selling out-of-stock items and has optimized retail operations. It has been able to reduce the order-to-fulfillment cycle to as low as 15 minutes and has reduced average order lead-time by more than 20 percent. Browns also has achieved a 99.5+ percent order fulfillment rate. With a better view into inventory, it is much more intelligent about only showing customers products that are on hand and available.

Hubert says that with a strong foundation underneath it, Browns Shoes is now comfortable taking things to the next level and starting to leverage the advanced capabilities of its systems.

“The beauty is, now, when we say we are sending a pair of shoes, we know that we can ship it quickly and reliably to satisfy the customer, and with controlled costs to satisfy our bottom line,” he says.

CARTER'S INC.

Atlanta, Ga. • www.carters.com

Nominated by: Linc Global • www.letslic.com

If you've ever been a parent of a baby or toddler, you know that new parents don't have a lot of spare time. So if you're a retailer selling to this time-strapped demographic, it makes sense to put convenience in the center of your customer-engagement efforts.

Carter's Inc., owners of the iconic children's apparel brands Carter's and OshKosh B'gosh, as well as the innovative durables brand Skip Hop, wanted to make it easy for its customers to communicate with them. Given that today's generation of new parents increasingly favor com-



munication via social media channels such as Facebook (and even via voice assistants such as Alexa and Home), it made sense to go where its customers were, and to make the communication easy. With a combined following of more than five million consumers on its Facebook pages alone, the company understood that the FB channel was a crucial component of day-to-day communications with shoppers, said Jadene Burgess, senior director, e-commerce operations. So, the company turned to Linc Global, which it was already using for digital experiences such as email updates and SMS text messages, to implement AI-powered Facebook Messenger chatbot technology, which



helps retailers automate customer care to their shoppers.

With chatbots, its customers can now track packages and receive instant answers, 24/7, to WISMO (where is my order) questions, instead of needing to interact with human representatives, which is not as convenient, and also sometimes requires a wait. The company also had the idea to use chatbots to update customers on pick-up-in-store orders that were made online, an innovative use of the tool that is keeping customers from having to wait for an update email or phone call, she says.

Using chatbots, Carter's has been able to better serve its customers, says Burgess, while also mitigating the volume of inquiries handled by traditional service channels, lessening its labor costs and also reducing strain on its customer care representatives.

CAVENDER'S BOOT CITY

Tyler, Texas • www.cavenders.com

Nominated by: Jesta I.S. • www.jestais.com

Eight years after opening a successful rock-n-roll-themed hamburger joint in Pittsburg, Texas, in 1965, James Cavender decided to try his hand at apparel. More than 50 years later, Cavender's Boot City is still going strong, with 79 stores across 10 midwestern states — adding about five to seven stores annually — and online. The western wear retailer has kept its customers coming in with a focus on great product and great customer service.

As the chain has expanded, getting product assortments fine-tuned to each store and getting them there at the right time became even more important, but at the warehouse level, the company was dealing with an information gap, where it lost its real-time view into inventory. To remedy that situation, Cavender's decided to implement Jesta's warehouse management system (WMS), which integrated easily with its existing merchandising system, also from Jesta.

ta. With that addition, the company gained real-time inventory visibility as well as more efficient operations, including the ability to perform carton-level transfers and to receive up-to-date tracking information. With the WMS system it also added a mobile component that further streamlined warehouse operations, as inventory could be managed from anywhere on the floor, using handheld mobile devices.

The implementation went down last fall “with no hiccups,” says Jim Thompson, CFO, who says that overall, the solution has given Cavender's visibility and efficiency across the organization, from head office, to warehouses, to stores. For the merchandisers in particular, it has improved productivity manyfold, because there is no longer a wait time to find out what products have arrived to the warehouse, and where they are. “There's a continuous flow of data back and forth,” he says.

Next up, Cavender's will be implementing EDI as well as getting up to speed on the new features of Jesta's recent upgrade to its planning solution, which includes a BI module. It's also implementing a new accounts receivable module to make its corporate sales invoicing more efficient. Cavender's partners with oil companies, railroads and other large industrial businesses to offer discounts to its employees, who are often required to wear specific OSHA-certified clothing (for example, clothing with flame-resistant properties, or steel-toed boots), which the retailer offers. “Invoicing to deal with the vouchers companies give to their employees has to be handled differently, depending on which company issued them, and Jesta's system has a lot of good functionality built into it to tailor them to individual companies,” says Thompson.

“When you're a smaller company like us, you need outside expertise. Jesta see lots of different businesses. They come out here about six times per year. And they always will say, ‘Hey, we've got a client doing such-and-such. Have you ever thought of that?’” says Thompson, who adds that he values the attention that the company has received from the tech provider going back to 1997 when they first started working together. “It really helps to have that sort of partnership,” he concludes.

CHI DESIGN INDIGO

Columbia, S.C. • www.chidesignindigo.com

Self-nominated

After 25 years working as a graphic designer in the corporate world, Caroline Harper was ready for a change. She wanted something more artistic, more tactile. She started working at an art gallery, where shibori designs kept catching her eye with their beguiling designs and “magical” blue hues. Shibori is a Japanese cloth tie-dyeing art that uses indigo dyes and specific types of folding, twisting and binding techniques. Harper decided it was what she wanted to do.

So in 2014, she traveled to a town outside Tokyo, Japan, for a two-week course in shibori design and tech-



nique. Afterwards, back in the States, she ordered some indigo online and began creating designs on items that she sewed herself. She started selling her t-shirts and scarves and tea towels in local boutiques and online.

The indigo Harper ordered online was made in India; she couldn't order it locally, because it's no longer grown in the United States. So Harper did what anyone else in her situation would have done (eye roll). She decided to grow it herself.

Fast forward to spring 2018 and Chi Design Indigo is in its third year of planting and harvesting indigo and making its own dye. "There's no literature on this," says Harper. "We've had to learn as we go." The first year's pigment yield was low. "We had fewer plants and didn't know what we were doing." But last year was a different story; for the first time, Harper did not need to purchase any dye.

Indigo production is labor-intensive. This is how it works: Harper, along with her husband, David, plant indigo seeds in dozens of little pots in their back yard. (Last year the seeds produced about 800 plants.) From there,

the Harpers transport the plants to fields in South Carolina's lowcountry (for non-South Carolinians, that's the lower southeastern part of the state, closer to the coast). This year, they're moving to a field in the Charleston area — closer to the site where the crop was historically grown in this country, more than 200 years ago (more on that later).

Indigo grows tall, like corn, with leaves extending out about two feet around.

There are two harvests per year, one at the end of August, the second a month later. At each, the plant is cut in half, and stems and leaves are bound together and soaked in steepers, where they are left for 24 hours to ferment.

The next day, "it's all alive," says Harper. "The water is bubbling, neon green and purple." Leaves are removed, and lime is added to the remaining liquid, which is then paddled with oars to add oxygen, a process that changes the color from neon green to brown to deep green to blue.

Over the next several days, the blue pigment falls to the bottom, says Harper, after which she siphons off the water, presses the remaining sediment — "like a thick mud" — through colanders, and wraps grapefruit-sized balls of it in Osnaburg linen, which she hangs to dry. Voila! Indigo. Ready for the mortar and pestle whenever needed.

There's been some trial and error in their three years making indigo, in figuring out, for example, how much

lime to use (too much will turn the indigo grey, too little, and it won't adhere to the fabric), but each year she's gotten better at it. This year, Chi Design will be experimenting with a new and more sustainable dyeing method that involves drying the leaves immediately after harvest without soaking them. "It's completely waterless, so it's much better for the environment," she says.

Harper and her husband are members of the International Center for Indigo Culture (ICIC), a small group of artisans devoted to reviving indigo production in this country. It's a bit of an uphill battle, because there's a stigma attached to indigo: its production in this country, in the mid to late 18th century, was done entirely by slaves. Indigo was a cash crop — South Carolina's second-largest export, after rice — and many plantation owners became wealthy on the backbreaking work of indigo slave labor.

That's a stigma the ICIC wants to address, by keeping its history alive while also allowing its production to carve a brighter path. Harper envisions a modern era of production bringing a new type of tourism to Charleston — indigo dyeing workshops, field visits, festivals. The organization is planning its first event for later this year.

It's time for indigo to turn over a new leaf. Says Harper: "We want to bring light into darkness."

COURBE

New York, N.Y. • www.lotusad.com

Nominated by: Lana Fashionwear Inc.

www.lanausa.com

That not much apparel is made from hemp is unfortunate, but hemp has suffered the stigma of deriving from the same plant family as marijuana. It's a completely different variety; its appearance is different, as is its growing environment. Most importantly, it contains only trace amounts of THC (the chemical responsible for marijuana's psychological effects). You can't smoke clothes made from hemp (well, you can, but it won't do anything for you), but that hasn't kept legislation away. One of the world's oldest domesticated crops was lumped under the set of banned drugs established under the Controlled Substances Act of 1970.

Fortunately, a reversal has been underway in recent years. The 2014 Farm Bill included a provision to allow universities and state departments of agriculture to begin cultivating industrial hemp for limited purposes, and to date, 34 states have removed barriers to its production.

With the green-lighting of the crop, Courbe's founders Bonnie and Rey Mercedes decided to take the plunge and this year will launch an apparel and activewear collection called Zi, made from Courbe's newly developed hemp-blended yarn, which is both soft and high-performing.

Bonnie — who comes from a textile family in Taiwan and has decades of experience in apparel production (she's worked with the likes of Isaac Mizrahi and Anna Sui and most recently was with Lana Fashionwear) —



was frustrated with the fabric wastage and environmentally harmful practices in the industry. She and Rey have been encouraged by the trend toward sustainability and saw in hemp an opportunity to expand it.

What's so great about hemp? The plant is eco-friendly, with a low carbon footprint, requiring about one third of the water used to grow cotton. From a farming standpoint, it's the "perfect rotation crop," says Rey. Its natural antimicrobial and antibacterial properties help revitalize the soil, eliminating weeds and thus the need for pesticides. With soil that requires fewer or no pesticides, growing hemp actually preserves waterways and reduces risk to agricultural-worker safety. Hemp also produces a big yield — 250 percent more fiber than cotton and 600 percent more fiber than flax using the same amount of land — a huge advantage over other fibers.

Then there's the hemp fiber and yarn itself, which is also antimicrobial and antibacterial. Hemp fiber is naturally very porous, so it breathes well and doesn't hold moisture, which keeps odors at bay. It holds dye better than other natural fibers, which allows colors to remain vibrant longer. It's also naturally sun-resistant — like wearing an SPF 50+ sunscreen (without needing to be dense or heavy or dark in color) — and it becomes softer the more it is washed.

But hemp isn't perfect. There's a reason for its olden-day use in ropes and sacks but not clothing: the itch factor. So Courbe has conquered the fiber's downside by blending it with other fibers, such as cotton and rayon, to achieve a proprietary fabric that is comfortable, high-performance and environmentally friendly.

The line will launch for Spring 2019 and initially will be online. "We need to discover a good strategy to present the benefits of hemp the right way without scaring off the big-box stores. ... There's still a psychological resistance to hemp," Bonnie says. But she's optimistic. "We believe there is an appreciation for this product, especially by Millennials who are concerned about the carbon footprints that companies are leaving behind. We are trying to make a positive difference, and this is what we fell in love with."

DESCENDANT OF THIEVES

New York, N.Y. • www.descendantofthieves.com

Nominated by: [Perfitly](http://Perfitly.com) • www.perfitly.com

About a decade ago, Matteo Maniatty saw some "white space" in the men's wear market which at the time was extremely logo-driven — very in-your-face, you might say. He saw an opportunity for men's woven shirtings and other pieces that were more non-conformist and more subtle. "We wanted to design differently, from the inside out," he says. Maniatty wanted to put more focus on apparel interiors, on what he calls "quiet details," such as hidden inside pockets or a splash of color or pattern



inside the collar or shirt cuff. "These are details that are almost more for the person wearing it than for the façade of the shirt."

Thus was *Descendant of Thieves* born. Co-founded by Maniatty and partner Dres Ladro, it's become known for its fun color play, its razor-slim fits and those aforementioned "quiet" details. (One of those hidden pockets says: "Don't tell mom.") Since its launch in 2009, the company has doubled in business every two years. Nordstrom was its first sale — the retailer bought its first sample collection "right off the bat." From there, the partners scrambled to move into production — developing a partnership with a small factory in Shanghai — and to launch a web site.

As for most retailers selling online, and especially for a start-up without a history of customers familiar with brand fit, product returns were an expensive and time-consuming challenge for the business. "People would buy many more pieces [than they intended to keep] and then return what they didn't like." The company closely tracked the reasons for return. Sometimes it was because of color, but often it was because of fit.

For help, DoT turned to a solution from *Perfitly*, which allows customers to "try on" apparel before buying it by allowing them to see the clothes on their own representative avatars, using algorithms that draw from just a few body measurements (chest, hips, waist). Apparel patterns are digitally sewn on top, taking into account fabric content and weight to imitate drape. "Perfitly is fantastic in the way it works with us on user experience and a data return feedback loop to make its product smarter," says Maniatty. To date, the company has used *Perfitly* just with shirts, and its return rate has dropped from 28 percent to 10 percent in that category.

Maniatty envisions a day when fit won't be an issue at all, for retailers or consumers. "We'll scan our body once, and we'll use that scan at different retailers." He expects manufacturing to move back to the United States with more automated tech. "There will come a time when making in another country will just seem weird. We'll have less waste. Everything will be on-demand." For now, though, he is thrilled with the reduction in returns and is working to expand the solution to other categories. Next up? Pants.



FASHIONS UNLIMITED
 Baltimore, Md.
www.fashions-unlimited.com
 Self-nominated

Today, the United States is seeing a mini renaissance in apparel manufacturing with the launch of small high-tech startups and the reshoring of some apparel previously sourced overseas — but Fashions Unlimited has been around since 1976, and it never left. While most domestic apparel manufacturing slipped offshore over the past couple of decades, the company held its ground in Baltimore’s now-shrunken garment district by learning how to innovate and manufacture whatever retailers and brands needed, says founder and president Phil Spector. “I’ve always believed in the USA,” he says.



To make it in U.S. apparel manufacturing, the company became highly skilled in difficult-to-sew types of garments, particularly those using stretch fabrics, manufacturing for the likes of adidas, Capezio, Coach, Commando, DVF and Under Armour. It also worked to develop new performance fabrics for the industry. One of its most challenging and satisfying projects was the development of outerwear for the Hanesbrands’ Mt. Everest summit in 2010, in partnership with Champion. The “Supersuit,” which utilized silicon-modified aerogel that contained microscopic pockets of air, was both lightweight and ultra-insulating, and “didn’t make you look like the Michelin Man,” says Spector. The suit was such a hit that it appeared on a segment on Good Morning America and in *National Geographic* magazine.

Over the years, Fashions Unlimited has developed a wide range of unique garments. In 2000, it developed a biological- and chemical-hazard protective suit that has been going strong for 15 years. That year, it made about 100 suits per month. “Then 9/11 came, and we had to make 110 per day,” says Spector. That same year the company improved upon a pattern for a mastectomy bra, and the design was so good that the company is still producing it 17 years later.

Three years ago, Fashions Unlimited struck out on another innovative path with the development of apparel designed for the transgender community, and to date has produced more than half a million garments, which are created with a high-tech compression fabric to minimize the appearance of the chest and belly areas, says Spector.

Most recently, the company has started development of a fabric produced with electrons that light up. The goal is to take the place of reflective devices on items such as shoes and bikes. It’s also in the initial stages of development of a fabric that can be used to charge a watch or smartphone.

Spector is optimistic that some sort of hybrid of humans and high-tech automation will continue to open up opportunities for growth in U.S. apparel manufacturing. “We can only hope it will increase,” he concludes.

LANDS’ END SCHOOL

Dodgeville, Wis. • www.landsend.com/school
 Self-nominated

Even though Lands’ End School has long made it a mission to offer school uniforms in “sizes for every student body,” it heard from some of its customers that, despite its full range of sizes, some kids who had special needs had difficulty getting dressed.



“So, we decided to change that,” says senior merchandise manager Cathy Mays. The company challenged its in-house design team to create new “universal” styles specifically designed to serve young people and students with special needs. As a result, Lands’ End School (a division of Lands’ End Outfitters) is launching its new Universal line of adaptive clothing for fall 2018.

It started its redesign by drawing from its current bestsellers, adding new versions that feature easy-to-use closures. The initial fall launch of the Universal collection will feature eight pieces — its all-cotton Performance polo, boys’ Iron Knee® wrinkle-resistant chino pants, girls’ and boys’ chino shorts, girls’ cotton performance mesh polo dress, ponté skirt and chino skort, and its easy-care stain-release Oxford shirt.

The design team replaced closures such as buttons — which can be difficult to maneuver through buttonholes — with small, discreetly placed magnetic closures specifically designed to make getting dressed easier for kids, as well as for parents and caregivers who may be assisting them. There are, for example, magnetic closures on shirts underneath faux button plackets and magnets on the leg openings of chino pants.

In addition to the magnetic closures, the items are easy care, durable, comfortable and “sensory friendly” with smooth, clean-finished seams and waistbands to eliminate potential irritants, says Mays.

“We learned early on in our research and development phase that there was a true void in the market for adaptive clothing that was also affordable, well-made, comfortable, safe and highly functional,” said Mays, adding that cross-functional teams worked diligently to design, construct and modify the clothing, receiving

input from kids via a partnership with the University of Wisconsin – Whitewater.

Says Mays: “We are excited to share the results with our wonderful customers and their families.”

LANE BRYANT

Columbis, Ohio • www.lanebryant.com

Nominated by: Vibes • www.vibes.com

Even though Lane Bryant has built loyal and passionate customers, the plus-size fashion company sought to engage them in new ways instead of simply blasting out coupons and promotions, so it decided to make things more fun by adding gamification to its traditional promotions. “Mobile campaigns like our ‘bra reveal’ gave us an opportunity to gamify our standard bra promotion and add intrigue and an engagement layer that we otherwise hadn’t previously done,” says Zach Rogers, digital manager, marketing. The result was an even more connected consumer — who also spent more.

Last year, Lane Bryant started working with Vibes, a mobile engagement platform, to switch up its mobile messaging strategies and change the shopping experience for its customers. In its first six months working with the platform, the retailer’s mobile list grew by 30 percent, which was 16 percentage points greater than other retailers’ growth over the same period.



Over the past year, the retailer has deployed many experience-based campaigns using the platform. Its first gamified experience, “Swipe to Reveal,” launched in July 2017 and promoted the retailer’s Cacique lingerie collection. Here’s how it worked: mobile subscribers received an SMS message showing a model wearing a

dress, with instructions to “swipe” to reveal their offer of \$15 off a bra. The campaign drove a 49 percent engagement rate (where swipes occurred) and a 37 percent mobile wallet download rate.

Likewise, for an SMS campaign during the holiday season centered around daily doorbuster deals over a five-day period. Lane Bryant saw that 27 percent of the visitors to the mobile experience went on to shop the Lane Bryant store.

Overall, 54 percent of subscribers who have joined Lane Bryant’s mobile list since February 2017 came in from a contest experience on the platform, and this year the retailer is continuing to evolve its gamification strategy, while also exploring other opportunities for its customers to engage with the brand through offer reveals,

personalization, interactive voting and more. It’s enlisted the platform to help with its “LaneStyle Studio” program, which brings professional fashion stylists into its stores to help customers find just the right look and the perfect fit; this past February Vibes began providing regional targeting and retargeting to invite customers via SMS (text message, based on their zip code) to one of 30 participating stores for an in-store denim styling event.

The next step, says Rogers, is to tailor marketing messages specifically to the individual customer. “Instead of focusing on wide-reaching blanket broadcasts, we are focusing on how we make mobile marketing a personal experience for each client.”

Whether that’s through behavioral metrics or first-party shopping data, Lane Bryant wants to make sure it gives the customer a message she truly wants, Rogers says.

NATORI

New York, N.Y. • www.natori.com

Nominated by: Albert • www.albert.ai

Founded by Josie Natori, the 41-year-old fashion sleepwear and lingerie brand got its start when Natori brought an elegant embroidered blouse from the Philippines, her native country, to a buyer at Bloomingdale’s, who encouraged her to turn it into a sleep shirt. She did, and her creation struck a chord with consumers; at the time, most sleepwear was either “lewd or frumpy,” Josie Natori once said. For years, Natori designed and developed its brands primarily for high-end retailers including Saks, Nordstrom, Neiman Marcus, Bloomingdale’s and Dillard’s, staying relevant by always pushing at the edges in fashion and by listening to its customers. In more recent years, it’s expanded that innovative and customer-centered approach to marketing efforts for its blossoming direct-to-consumer business. Natori has added mobile pop-up shops, live streaming sales events and video content; it has also plumbed AI.

Natori took its plunge into e-comm when Josie’s son, Ken Natori, joined the company as vice president in 2007. At that time, “the world was on the precipice of changing,” he says. Although its wholesale model continued to dominate, Natori slowly built the company’s d2c capabilities, leading those efforts until 2014. “Until that point, we had really bootstrapped everything,” he says. The company was doing well, but Natori — who took on the role of president in 2016—needed to turn his attention to other areas of the business, and the company





Apparel 2018 TOP INNOVATORS

“needed true talent who already knew what to do and not just build from scratch.”

Enter Heidi Maund, director, e-commerce, who first moved the business to a new e-comm platform, and then took the company’s in-house social media marketing efforts from a more instinct-based, ad hoc approach to paid social to an AI cross-channel digital platform called Albert, which launched in June 2017. Natori fed Albert all of its spring 2017 assets: mostly images, but also some video. “We wanted to give Albert as much as possible to learn from.” And learn Albert did. “It takes time. It’s not a straight line up. It requires adjustments, but Albert does learn,” says Natori. Since it launched last year, Natori has received a 700 percent return on its paid social investment, which is concentrated in Facebook and Instagram.

In addition to increasing conversion, Albert has enabled the company to understand the fine nuances of difference among customers of its different brands, and to understand the various combinations of what campaigns are converting best, to which audiences, and at what price points, says Natori.

“As a company we try to push the envelope in terms of innovation. So often it can be challenging because we are pulled in different directions. This partnership with Albert has allowed us to be innovative without taxing the organization. ... We’ve become big believers in AI,” he concludes.

OUTDOOR CAP

Bentonville, Ark. • www.outdoorcap.com

Self-nominated

You probably don’t need to read this to know that most baseball caps are created by sewing together five or six fabric panels, which compose the crown of the cap; it’s likely you have at least one lying around your house right now with your favorite sports team emblazoned across the front. But Outdoor Cap is turning hat creation on its head with the launch of its new OneTouch headwear, a single panel cap that does not require any seams or sewing across the entire crown. Eliminating the thread and the extra fabric required for seams comes with a lot of advantages: OneTouch ball-caps are lighter, sleeker and more comfortable, says Jarrod Reeves, vice president, brand development.

The new patent-pending tech produces high-performance caps that are about 50 percent more lightweight than traditional baseball caps. Additionally, they feature Q3 moisture-wicking cooling sweatbands that actually decrease in temperature, by about five degrees, when you sweat. The 40-year-old cap company debuted the new product at the PPAI (promotional products) show in January in Las Vegas to “outstanding reception.” OneTouch caps, each of which

features a unique stamped rubber badge logo on the temple or closure, are also currently available in its sports and hunting and fishing lines. Says Reeves: “We think these caps will be popular not only in sports but across industries, especially in areas such as entertainment, technology and education, where people pride themselves on staying up to date with the latest technologies.”

OUTDOOR VOICES

Austin, Texas • www.outdoorvoices.com

Nominated by: Oracle + NetSuite

www.netsuite.com

You know that person who’s always trying to surpass his own one-mile running time, or lift heavier weights, or build more muscle mass? Of course you do. Everyone knows at least one of those people. Kudos to them. But that’s not what Outdoor Voices is all about. Founded by CEO Tyler Haney while attending Parsons in NYC, Outdoor Voices is about #DoingThings. Haney, a former high-school hurdler, realized that the ultra-competitive attitude conveyed by some of the large athletic wear companies no longer spoke to the way she and many other people she knew approached fitness. She wanted to celebrate activity rather than competition. “It’s less ‘bigger, faster, stronger’ and more about getting out and being active with your friends and your community. It’s really a way of life,” says Kevin Harwood, vice president of technology.



That message really resonates with people, which explains why Outdoor Voices is growing rapidly, with revenues up 400 percent from 2016 to 2017. The Austin, Texas-based company, which launched in 2013 (with venture capital including funding from General Catalyst and GV, formerly known as Google Ventures), manages a growing e-comm site and also expects to open additional retail stores this year.

By 2016, with its popularity on a steady rise, OV realized that although its existing software tools — which were heavily reliant on manual processes — had kept the business operating at scale thus far, they wouldn’t carry it into the future, and that it needed better infrastructure to handle the rapid growth of its operations.

That brought OV to NetSuite, which the company imple-

mented over the course of three months last year, going live in October with its operations modules. OV uses NetSuite as 1) the inventory master across its retail stores and warehouse; 2) the financial system of record; 3) the item master; and 4) for logistics, to track packages shipped to customers, inbound from warehouses, transfers between warehouse and stores and so forth. Says Harwood: “We’ve laid a solid foundation so that now we can turn more attention to other areas of the business such as customer experience.”

Already, the company has reaped tangible benefits. With Black Friday 2017 on the horizon and OV anticipating a much higher volume than the previous year, the company was concerned about bottlenecks. “With NetSuite in place, we had no bandwidth constraint issues,” says Harwood. Bonus: “Because it is an SaaS, we can level up from scale as needed. We don’t have to manage the hardware for it.”

Additionally, OV now has much more visibility across its operational layer. “In the past, the data existed but there was no way to mine it easily. I had to ask a member of my team to pull it through an API to generate ad hoc reports.” Today, employees from across the business can get access to real-time and “super customizable” dashboards of the set of info they need.

With its operations solidly ready to scale, and no concerns about supporting the rapid growth trajectory ahead of them, OV has been able to turn more attention toward front-end areas of the business, with several leading initiatives currently underway, including same-day delivery and buy-online-pickup-in-store. Says Harwood: “NetSuite has allowed OV to start to solve different types of problems and focus on more forward growth.”

THE PINK LILY BOUTIQUE

Bowling Green, Ky. • www.pinklily.com

Nominated by: BigCommerce
www.bigcommerce.com

Chris Gerbig and his wife Tori used to have different jobs. Chris worked in corporate finance as an analyst for supply chain, and Tori worked in insurance sales. Both of them liked to shop online and realized how popular the channel was becoming; one day Tori decided to start up a Facebook page selling a limited selection of fashion apparel. She called it The Pink Lily Boutique, and stashed the inventory in their living room.

It wasn’t long before the business started to grow rapidly. Soon, the start-up had its own website. The Gerbigs took the revenue from their first six months and reinvested it into the business, buying more inventory, and purchasing ad space on Facebook.

“The plan worked,” said Chris Gerbig. Sales were racking up so quickly that both Chris and Tori quit their day jobs to focus full time on Pink Lily. Soon after, they noticed a trend. “We started to receive a lot of requests for adding initials to product,” he says. “It’s such a growing trend. You walk

down a college campus these days and everything is monogrammed.” They decided to take a risk and test the waters with a single embroidery machine.

That’s all it took. The response was huge. Customers really were hungry for a personalized experience — and at an affordable price point. Next Pink Lily added a screenprinting option.



Adding personalization to the business was a “game changer,” says Gerbig. What started with a single embroidery machine has grown to three commercial embroidery machines, two direct-to-garment printers, a screenprinting machine and five heat presses. Today, about 30 percent of its business is customization, he says. It’s great for Pink Lily’s customers, who can better express themselves through the brand; it’s also a significant win for Pink Lily, not only because it brings in additional sales, but because the company doesn’t need to hold as much inventory — it can personalize it at the point of sale, says Gerbig, adding that customers love to get t-shirts screenprinted with funny quotes and holiday-themed graphics. The company has grown to 50 employees, ships more than 1,500 products per day (no longer from its living room; it now has a 50,000-square-foot warehouse) and boasts sales of well over \$50 million.

As a pure-play online business, Pink Lily has been aided in its growth by its e-comm platform BigCommerce, which has given the company the tools it needs to manage and grow online, including native integrations with Facebook, Instagram and Pinterest and analytics into customers and products. That information provided a keen insight for the business — men wanted custom apparel too, but didn’t want to shop on a site called Pink Lily — which has in turn led to the company’s newest venture, says Gerbig: the creation of LeisureTees.com, another e-commerce brand focused entirely on custom apparel for men, women and kids, which launched in March.

PVH CORP.

New York, N.Y. • www.pvh.com

Nominated by: Browzwear
www.browzwear.com

When you’re a company the size of PVH — more than 36,000 associates in 40 countries, almost \$9 billion in



revenues and iconic brands including CALVIN KLEIN, TOMMY HILFIGER, Van Heusen, IZOD, ARROW, Speedo, Warner's, Olga and True&Co. — the majority of tech initiatives you undertake really have to be able to scale across the organization if they are to propel it forward.

So when PVH started to look into 3D, it was really about digital transformation across the entire company. "Like any other company in the retail space, our challenges are speed to market, getting closer to the consumer, developing closer to trend and eliminating line volatility," says Robert Stanley, director of design IT, PVH.

PVH saw a lot of potential in 3D, but just a few months in, it far exceeded expectations. This is what happened: the company set a goal for itself to design and develop, merchandise and sell some of its product in 3D, directly to customers, without samples, by the year 2020. Instead, PVH realized its goal within six months.

After conducting a proof of concept with several vendors that led PVH to select Browzwear, the company moved into the pilot stage within its TOMMY HILFIGER, CALVIN KLEIN, Dress Furnishings Group and Heritage brands. Using their existing libraries of digital patterns, designers can sew up digital blocks, apply color, print and style variations to the 3D garments. Early on, PVH challenged its designers to create — within two weeks — a product capsule for wholesale accounts. One brand designed in 3D, rendered the product, created digital samples, showed it to an account and sold it — all without creating a single physical sample. "That was an unexpected success," says Dwayn Catto, group vice president of product creation IT, PVH. "Using 3D, the brand did in four days what would typically take four months." That product will hit stores in fall of this year.

"For PVH that is huge," says Catto. "We have a conduit to say, 'all of those industry buzzwords around reducing speed, calendar and cost — we just demonstrated that is possible.'"

The goal is to gradually expand 3D across the entire value chain. "Anywhere product is viewed, edited or approved is an opportunity to use 3D instead of a physical sample to eliminate time, cost and waste from the process," adds Catto.

"What we want to do is take 3D organically out of design and development and leverage it across the organization. It's less about marching out tools and more about finding where 3D will make the biggest impact within each business, whether that's sales, assortment planning, merchandising, etc. From there, we put together a roadmap," says Catto. PVH Corp. is also bringing its factory partners onto Browzwear so that they can work together in the tool.

It's still early days, but Stanley says the company is already thinking about how it might use 3D for floor layouts and in place of some photography for e-commerce.

QUIKSILVER

Huntington Beach, Calif. • www.quiksilver.com
Nominated by: HighJump • www.highjump.com

The iconic boardsport brand has a long history of fast and smooth moves on waves and bowls, and more recently, it's put some of that finesse to work behind the scenes to handle complexities of its warehouse operations. Quiksilver receives hundreds of thousands of different products — that change from one season to the next — and has to ship them accurately and on time to thousands of customers with varying order profiles. Given the increasing complexities of high-volume, multi-channel retailing, Quiksilver required a more robust warehouse management system (WMS) than it was using, and one that could easily adapt to shifting requirements.

The company implemented HighJump™ Warehouse Advantage WMS, in large part for its ability to adapt business processes and to grow with the company: as it extends its solution to new warehouses, adds product lines or takes on new customers, in-house staff can quickly make necessary system changes without disrupting operations, says Ernesto Rodriguez, director, WMS IT applications.

The company uses the WMS to control, direct and increase visibility around activities such as picking, putaway, inventory control and cycle counting (and it's also tailored the solution to meet some of its particular needs). Specifically, HighJump's wave planning solution allowed Quiksilver to speed up high-volume order fulfillment and to carry out a sophisticated "dynamic pull" picking process, which has resulted in faster picking and shipping of large orders to major retailers. Quiksilver now ships twice the number of units each year compared to the two years prior to implementing the system, and accuracy has improved significantly.

With the WMS, the distribution management team got creative, coming up with new ways to push merchandise through its facilities faster. For extremely popular items, it designed and implemented a new cross-dock function called "hot pick pack" that connects inbound items with outbound orders so that customers can receive popular merchandise more quickly. Order processing speeds overall have picked up tremendously. Where previously it could take up to a week to process an order, now Quiksilver can process same-day when needed.

Quiksilver also configured the system with a process called "pack and hold." Because it has clear visibility into customer orders and shipping times, the system directs staff to pick, pack and hold until a customer's shipping window opens. Another huge benefit: the WMS' interleave cycle counting functionality enables Quiksilver to cycle count each location two or three times a year with no operational interruption. Previously, it had to shut down its DCs for several days to conduct physical inventories, which would delay up to \$10 million in order processing, says Rodriguez. That has resulted in more than

\$4 million in savings in just one year.

Next up? Quiksilver plans to interface the WMS with its material handling automation equipment. Says Rodriguez: “We expect strong growth, and we’re confident that the system will be able to accommodate the volume.”

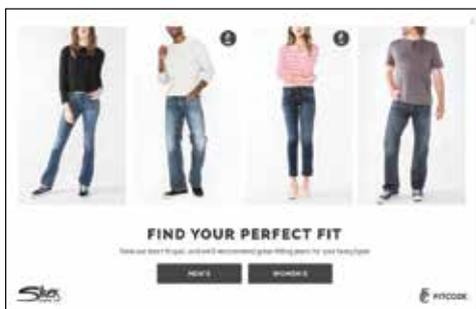
SILVER JEANS CO.

Winnipeg, MB, Canada • www.silverjeans.com

Nominated by: Fitcode • www.fitcode.com

Although founded in 1991, the Silver Jeans Co. founding family has been designing denim for almost a century under its Western Glove Works brand, and fit has always been at the core of the business.

The company’s first silhouette, the “Frisco,” sold 2 million pairs, and since then Silver Jeans has expanded to include



fits for all types of bodies. To help its customers better find the styles that suit their body types, whether straight or curvy, tall or short, slim or muscular, the company last year implemented a

sizing solution from Fitcode to provide a curated, personalized, fit-focused shopping experience.

The simple process goes like this: After taking a brief, five-question quiz online, consumers are assigned a fit profile with corresponding Fitcode “badge” (a number that corresponds to the profile), explains director of e-commerce Mike Girardin. Users can select the badge to view sizing recommendations and details on factors that impact fit, such as rise, inseam length and stretch.

Behind the scenes, Silver Jeans receives data from Fitcode that helps the brand move more quickly to analyze its fits and sell-throughs, develop new products and also to understand how its inventory stacks up against its consumer’s preferences.

Girardin says Silver Jeans decided to move forward with Fitcode after seeing the positive effects it was having on sister brand JAG Jeans. “Fitcode puts a lot of research into their fits and body types,” Girardin explains. The profile system is based on specific body types that have been created through extensive and “high-touch” development processes that involve actually trying various garments on varying body types. To apply its numbering system to a brand, Fitcode uses a cross-section of the brand’s garments, tries them on its fit models, and then assigns profiles accordingly.

“If you’re one number in JAG, you’re the same number in Silver Jeans, and also at [other brands that are Fitcode customers],” says Girardin.

And the numbers show it works, he says. Silver Jeans customers who use the system are 192 percent more likely to make a purchase; 300 percent more likely to return to the web site; and 236 percent more likely to view product description pages. Also, returns are less than half of what they were previously — 24 percent vs. just 10 percent for Fitcode users. Says Girardin: “That’s a big win.”

UNTUCKIT

New York, N.Y. • www.untuckit.com

Nominated by: SATO Global Solutions

www.satoglobalsolutions.com

UNTUCKit launched in 2011 to solve a problem for fashion-conscious men who wanted the comfort of an untucked shirt without the attendant sloppiness. Founder Chris Riccobono and CEO and co-founder Aaron Sanandres launched the brand online with 15 different shirts, each designed to fall at just the right spot, not too long or too short. (Fun fact: each style is named after a different wine.)

Since then, the brand has grown significantly. It launched its first brick-and-mortar store in NYC’s SoHo neighborhood in 2015, and today has expanded to 26 stores with 20 more expected by the end of the year.

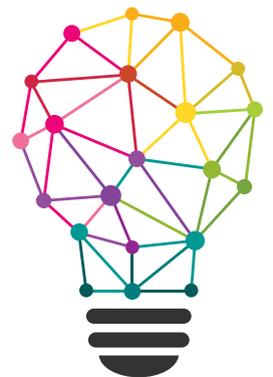
With its start in e-comm, UNTUCKit early on became used to the detailed insights into customer behavior it received from digital. As the retailer started opening physical locations, it wanted to be able to gather that same type of information so that it could better know customers and personalize the UNTUCKit experience to them.

In 2017, UNTUCKit began a pilot RAIN RFID program in its flagship Fifth Avenue NYC store, working with SATO Global Solutions and SATO’s partner RetailNext to develop an RFID-based solution to gather information about its customer preferences. Here’s how it works: tiny RFID tags placed on “try on” shirts collect real-time data on merchandise movement around the store and from showroom to fitting room (and back). The collected data from the RFID tags gives the company visibility into customer sizing, preferences and product demand by revealing how customers are interacting with an item on the store floor.

Using a combination of the chip data, overhead traffic counters (from RetailNext), and POS data (all of which resides on the VISION retail platform), sales managers can identify which shirts (exact sizes and styles) are being tried on and purchased — and which are not. As a result of its new store performance data, UNTUCKit is working with sales associates to identify customer needs more quickly, improve in-store sizing and optimize the merchandising mix.

Says Sanandres: “The implications of the RFID go well beyond inventory management. It improves the productivity of our store associates, provides valuable insights into shopper behavior, and, ultimately, helps us provide a better shopping experience for our customers.”

Solving Big Problems Inspiring Bold Ideas



EnsembleIQ