

Cognizant[®]



**The Future of
Retail &
Consumer Goods**

The future of retail & consumer goods will offer a world of opportunities, but the transformation will require substantial steps and boldness. The industry needs to be open to new insights instead of being mentally closed by existing ones.

Each industry has its own challenges, and digital disruption is everywhere. Organizations must be agile and build new momentum that respects the new reality of their industry. As organizations strive to remain relevant, they need to adapt to changes not only today, but also tomorrow. Change is the only constant. Constant change requires scenario-based thinking, exploring several paths and crafting a digital strategy based on preparing for the future. For businesses to stay relevant, they need to explore the future and look at next generations.

No one can predict the future; organizations must actively explore various possible futures to anticipate what disruptions are coming. We believe that future winners in the digital economy will be those that can deliver on one key insight: put technology in the background, and focus on people first. Putting customers first does not diminish technology's importance; rather, a deep customer understanding should help guide the choice of which technologies to incorporate in your business.

Cognizant can bring together digital strategy, deep industry knowledge, human sciences, experience design and technology expertise to help companies design, build and scale digital business solutions. Cognizant has both the expertise and experience with digital transformation. Together with clients we can explore tomorrow's opportunities.

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Center for
The Future of Work

A view by Cognizant's Center for the Future of Work

Meet the customer of the future

Euan Davis leads Cognizant's Center for the Future of Work in EMEA. A respected speaker and thinker, Euan has guided many Fortune 500 companies into the future of work with his thought provoking research and advisory skills.

Within Cognizant's Center for the Future of Work, he helps ensure that the unit's original research and analysis jibes with emerging business-technology trends and dynamics in Europe, and collaborates with a wide range of leading thinkers to understand how the future of work will look. Previously, Euan held senior analyst, advisory and leadership positions at Forrester Research, IDC and CEB. Euan can be reached at: Euan.Davis@cognizant.com

Sidney steps into the grocery store and opens the shopping list on her phone. The list immediately updates to include all of her most frequently purchased items, as well as her favorite products that are on sale. An alert reminds her of her sister's upcoming birthday, and adds champagne and chocolates to the list. After collecting her items, Sidney walks through the exit portal, which instantly charges her items to her bank account. Next is a trip to her favorite boutique, where she slips on a pair of virtual reality (VR) glasses and enters a private viewing room. She swipes through a selection of outfits, specially programmed to suit both her style and body. She chooses two outfits and a new perfume, and walks out the door.

The delivery drone notifies her that her purchases will be waiting when she arrives home. That's enough shopping for today. Next week, she's doing that "mall experience" VR tour with her friends, so there will be plenty of time for browsing then.

Quick take

Post COVID-19 impact

The retail industry is set to face massive upheaval in a post-COVID world as consumers' expectations and attitudes toward personal proximity alter. Retailers that insure minimal face-to-face interaction between staff and consumers, such as those offering cashier-less shopping, will be favored by the post-COVID customer. The online user experience for e-commerce will become the new battleground for customer wallet share, with same-day delivery no longer cutting it as a sole differentiator. Virtual malls, which sounded like something out of Black Mirror, suddenly feel like a very real possibility. What can't be denied is that digital innovation is going to be front and center in the new retail industry, and the post-COVID customer of 2025 is going to be more digitally astute than ever.



Today's shoppers are spoiled for choice. In addition to the countless brick-and-mortar locations where they can browse for items, the explosion of online retail has made shopping at home an everyday occurrence. Some retailers wonder if the days of the brick-and-mortar store are numbered.

The customer is still king

Today's shoppers aren't quite ready to ditch their favorite retailers. They don't mind visiting multiple stores, as long as they walk out with a purchase that suits their needs. But in the busy pace of modern life, few people have hours to browse and money to burn. They want the quickest, most direct route to the products they love. And this is where retailers can create real value in the brick-and-mortar experience.

Customers are also becoming more aware and engaged. Quality and transparency about price, product reviews and availability are no longer differentiators: they're simply expected. Shoppers are also increasingly concerned about product provenance and sustainability issues, such as where products are made, their environmental impact and how retailers are contributing to a better world. That's why Swedish whiskey brand Mackmyra is now making it possible to interact with its bottles and learn about the whiskey's origin and production. Customers can even "adopt" their own cask, and follow their whiskey from maturation to bottling.

Going hybrid

The most powerful retail formula of the future will blend digital and physical in a new construct that enables a seamless, personalized and distinctive shopping experience. Vaqso VR is adding scent to the VR experience, which has the potential to make shopping experiences far more personal and sensory. Imagine being able to select the perfect perfume without dousing yourself in dozens of samples.

The power of data is transforming shopping into a predictive, personalized experience that directs customers to the products they want, need or didn't even know were possible. Prism Skylabs is even using existing surveillance cameras to optimize stores and enhance services. With machine learning, the company is learning more and more about how people move around in stores. And Celect is using data and machine learning to advise stores on the optimal assortment for their physical and online shops. With each application of new technology, retailers get closer to customer needs and behavior, and therefore create a more satisfying customer experience.

The Internet of Things (IoT) will connect shoppers to the retailers that know exactly what they're missing, and ship it in a flash. Think here of shops that automatically send fresh supplies of laundry detergent or milk and toilet paper whenever supplies are running low at home. Sensors and smart algorithms will customize

In the future of retail, digital and physical will reinforce each other.

selections for each individual shopper in-store. VR/AR technology will turn dressing rooms into a shopper's own personal style salon. And drones will deliver made-on-demand products right to a customer's door. In short, technology is set to make shopping easier, more convenient, more personal and more targeted – not sometime in the future, but someday very soon.

In the future of retail, digital and physical will reinforce each other. Technology will enhance the physical shopping experience and make it more convenient. And the physical store will ensure that the essential elements of touch, see, feel and explore are maintained or even enhanced. Shopping will be multi-sensory, immersive and adaptive. Retailers will shift from selling products to serving customers: each customer will have direct, frictionless access to the products he or she desires most.

Redefining the physical

There's plenty of room for the brick-and-mortar store in the retail future, but the entire store concept will be transformed. Instead of a fully stocked store with hundreds of options and a labyrinthine layout, the new store concept will use technology to ensure every shopper feels like the store was built exclusively for him or her.

Think, for example, of a fully immersive shopping experience, in which an AI-driven personal shopper selects clothing and accessories based on past purchases, preferences, budgets, style – and even emotions. It's already started, in fact: MyStore-E is an AI-based retail intelligence platform that acts as a personal shopping assistant. No more fumbling in cramped dressing rooms or wondering if the store has the outfit in your size.

With 3D manufacturing, predictive production and personalization, products will only be created when they are ordered. Shoppers will choose exactly the color, style and size that suits best, and every product will be delivered efficiently to their door and paid for electronically. Reduced waste and more efficient production also means lower production costs. This, in turn, means more competitive pricing and better value for money – which is one thing shoppers will always appreciate.

In food retail, the same level of seamless personalization applies. Grocery stores and quick snack stands won't cease to exist, but will merge with technological advancements to ensure that the healthy, delicious and distinctive foods each customer demands are fresh and waiting for them when they're ready to order. With machine learning and on-demand production, food retailers will have their finger on the pulse of consumers' dietary desires, and will be ready to deliver them.

The future of retail is human

Leading retailers are already aiming for a more personalized experience. Through loyalty programs and scanners, retailers are trying to get even closer to their customers.

As with most advancement today, personalized experiences begin with data. Expanded loyalty programs will still keep track of a customer's past purchases and preferences, but they'll also track moods, occasions, biometric data and more. Customers will immerse themselves in their own, personal shopping paradise.



“the future
of retail
is human”

Shopping for a healthier world

In the retail environment of 2025, trust and privacy will be essential. Consumers will continue to be loyal to companies they trust to not only provide quality products but also to protect their personal data. An era of discretionary consumption will begin, and products will increasingly focus on human health, wellness and social inclusion. Retail will be about smart networks and platforms that serve people, instead of product-focused pushing.

The result? Seamless, frictionless shopping that thrills customers. Personalized production that reduces waste. Conscientious consumerism that not only cares for customers, but also for the planet and its resources. So when Sidney has more shopping to do, she'll be happy to share her data in order to contribute to society as a whole.



Tony Bosma (1973) is a futurist and trendwatcher. He is the founder of futuring and consultancy organization Extend Limits (www.extendlimits.nl). Extend Limits does not predict the future but helps organizations anticipate it. Do not ask yourself why things are happening. Ask yourself why hasn't it happened yet? This is the mindset companies need to adopt in this era of change.

Tony Bosma is an authority in future thinking and trendwatching and was nominated in The Netherlands several times for trendwatcher of the year. He is an internationally renowned keynote speaker. He is known for his confronting, inspiring, visually attractive and surprising sessions about a wide variety of topics. He also works for a variety of companies and governments, helping them anticipate the future and, more important, challenge and question today's world and mindset.

In collaboration with Cognizant, Tony Bosma did extensive research into near future trends across industries. Together with Cognizant, he made abstracts of the most dominant developments – not far fetched futuristic worldviews – but realistic developments which are seen right now. These are not only plausible future developments but also the challenges of technological developments.

An external perspective by futurist & trendwatcher Tony Bosma

Retail & Consumer Goods reinvented

Retail has a long history of relying on mass channels and traditional thinking about value creation for consumers. When it comes to innovation, the industry has mainly pursued new initiatives within the boundaries of past success, opting for short-term thinking rather than a futuristic focus.

The consumer goods industry, meanwhile, has long embraced innovation, but it's been mainly focused on product innovation. We're starting to see efforts shift toward the digitization of the entire manufacturing value chain with the rise of Industry 4.0, however, as well as the rise of new technology-driven players whose sophisticated use of technology will only grow more mature.



Amid dramatic changes in the consumer and global business landscapes, retail and consumer goods manufacturers companies need to set aside their addiction to their past successes. Remaining relevant in the age of uncertainty means being open to new insights instead of being mentally closed by existing ones. The upcoming decade will be a transformative one for retail and consumer goods, full of opportunity and unprecedented change. A simple question for the industry remains: Are you willing to disrupt yourself? Of course, some trends are more relevant for retail and consumer goods companies than others. Success is about anticipating the right trends instead of mindlessly adopting the speed of change.

The business landscape for retail and consumer goods is at a tipping point. World economies are growing more volatile amid economic power shifts. The global middle class is expanding dramatically, and populations are quickly aging. Amid the dominance of e-commerce giants, there's also rising popularity of small brands and local products.

Platforms are now becoming the new foundation for organizations, and personalization and convenience are the keys for future success. Among consumers, mindless consumption is shifting toward a circular and regenerative mindset. Urbanization is putting pressure on city centers as space is limited and housing demand is growing. In this volatile world, where humans are continuously connected with a fast-changing digital environment and living in new dynamic urban areas, consumption patterns and demands will undergo dramatic change.

The age of the consumer is upon us. Empowered consumers will increasingly seek personalized experiences and meaningful brands. High quality and business transparency are no longer unique selling points but commodities. Retail and consumer goods can no longer think of customers in terms of homogeneous segments. What consumers want and need today will be very different from the wants and needs of tomorrow. Creating healthy margins will be all about meeting specific consumer needs as the one-size-fits-some mindset inexorably shifts toward one-size-fits-none. In the always-connected environment of on-demand instant gratification, every engagement will be driven by high-speed predictive analytics and a simplified, frictionless shopping experience.

This will blur the boundaries between retail and consumer goods manufacturers. The future will bring an ever-growing rise of direct-to-consumer models, demanding new ecosystems and borderless partnerships.

“**Retail and consumer goods will change more in the next 10 years than it has in the past 40 years.**”

World Economic Forum

Rise of hybrid experiences

Successful retail organizations and brands will need to address changing customer expectations around consumption by focusing on the role they play beyond product sales. The future belongs to businesses offering honest products and enabling meaningful consumption. This will introduce a new dimension to future business models. Global consumers are more than ever looking for products that are good for, or at least do no harm to, society, the environment and their health. They increasingly prioritize product longevity over buying something disposable. As a result, successful business models of the future will not be about selling more products but about empowering consumers to lead better lives. They'll focus on helping consumers make the right choices for themselves, the environment and the planet.

New technologies will play an important role in shaping the future of retail and consumer goods. Because neither industry has historically been a fast technology adopter, there is a gap to overcome. Just as virtual and online shopping experiences have become more customer-focused and efficient, technology also offers the possibility of enhancing the physical shopping experience and producing consumer goods at a personalized and sustainable level.

Consumer goods companies and retail have always been product-centric, with the focus on transferring products from an organization to a consumer. In physical retail stores, service has been about having the right products in a clean shop with little to no waiting times. The intent of physical stores has been to keep consumers in them as long as possible.

New technologies have fundamentally changed this concept, as they enable consumers to search, discover, evaluate and purchase products totally differently. Digitization has also

resulted in consumers looking beyond the product and expecting the transaction to be not just about the product but about the experience. At a time when we're adding intelligence to our brick-and-mortar world, physical stores will become multisensory, immersive and adaptive environments, with no distinction between the physical and virtual.

Both the physical and virtual worlds will seamlessly connect with each other and with the needs and wants of the individual. Products will become fully personalized, with new ways of promoting and even producing them.

Store experiences will be seamlessly integrated into the customer's hybrid shopping journeys. Physical retail will use technology to enhance experience and convenience, while digital retail will embrace the physical world to fuel trust with the benefits of touching, seeing and experiencing. The question is: for how long will the digital world need these attributes?



“ **80% of customers say that the experience a company provides is as important as its products or services.** ”

Salesforce

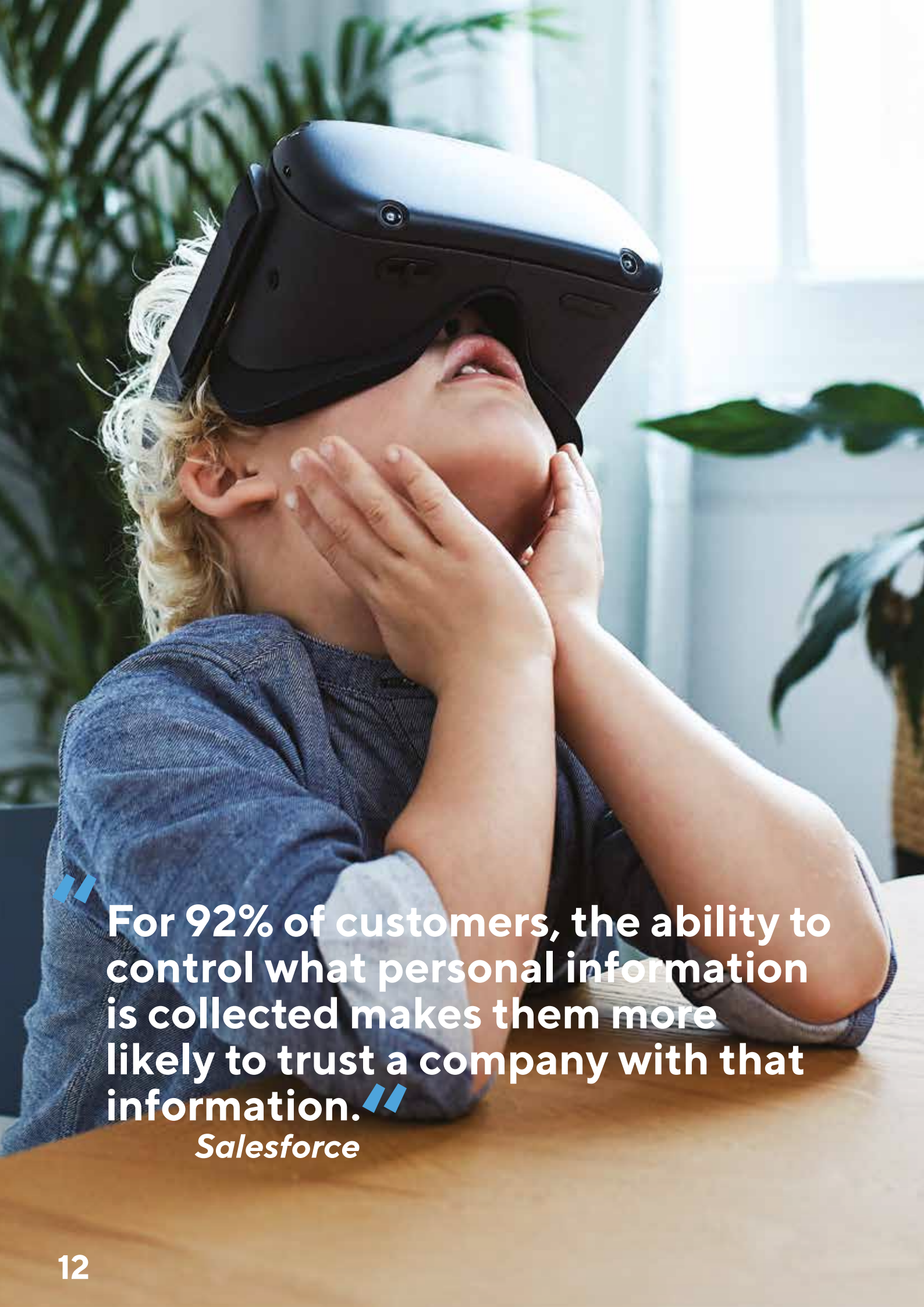
Data-enabled, human-driven

For decades, retail and consumer goods were based on gut feeling and market research. Now, with the capabilities of real-time and even predictive data analytics, the consumer goods industry is moving from a model of reactive operations toward a data-driven, proactive approach. Rather than pushing products to consumers, the model is increasingly based on consumer pull.

Data is being extracted in every phase of the factory-to-consumer journey. The combination of all these insights will bring enormous possibilities to adjusting products and services to changing demands, enhancing the customer experience, offering new products based on a continuous flow of predictive insights and minimizing stock. Supply chains will be streamlined,

and relationships with retailers will be intensified and enhanced. With the data consumers share, they will make it possible to experience a way of shopping that is fully calibrated to their needs and wants. Retailers will receive instant information to better serve and advise shoppers. All of these capabilities are changing the business playing field fundamentally.

In many cases, new technologies have the potential to surpass our physical shopping experiences and fundamentally change the world of consumer goods. But many consumers still need physical connections and interactions in the shopping process. The future will blend the best aspects of the physical world with those of the virtual world.



“ For 92% of customers, the ability to control what personal information is collected makes them more likely to trust a company with that information. ”

Salesforce

Imagine, one day...

By letting go of our mental barriers, we can freely imagine a possible future of retail and consumer goods. Imagine that in 2050, our everyday products are autonomously delivered when and where we need them. Many products are even being made at home or in the neighborhood via 3D printing. Shopping as a necessity has become a thing of the past. Physical stores are no longer fixed destinations but nodes between physical and virtual experiences. Shopping is purely focused on social interactions and experiences.

An ecosystem of drones, sensors, 3D printing and smart algorithms create unique instant experiences. Smart agents represent us online and do the shopping for us, interacting with digital retail agents for products and pricing. A divide has formed between the transaction and experience in shopping. Enabling consumers to enjoy the experience of shopping when they want it and for the products they want. Retailers create on-demand virtual worlds with mixed realities based on biometric and emotional data, as well as personalized aisles and recommendations all directly projected on in-store screens or even directly to the consumer's eyes.

New products can be experienced completely virtually. We can taste, smell and touch everything like it is in the physical world. Physical in-store shopping becomes a way of escaping our digitally dominant lives. The new definition of shopping is about experiencing offline, authentic human values. Overconsumption is no longer a problem, as everything we consume adds value to our environment, the planet or our health. Our social status isn't based on what we possess but on what we add to society, which has fundamentally changed our consumption patterns.

What does this future mean for the relationship between companies and consumers, privacy and human values? Can technology create real progress by fundamentally changing the retail and consumer goods industry? It's up to us to imagine and find the answers to these questions.

Retail & Consumer Goods reinvented

New challenges and questions

An array of digital solutions and opportunities for retail and consumer goods is being introduced every day. But are we addressing the right challenges with all these new technological possibilities? Real human progress is about changing our current world, not just digitizing it. We created a world stuffed with products. The purpose behind many brands and organizations is to produce, be honest, useless goods and things.

Meanwhile, products are easier to acquire than ever before, thanks to our digital world, which has led to an ever-growing commoditization of our consumption model.

But more than ever, we also feel our products don't give us that lasting feeling of happiness we seek. Slowly, we'll make the next step in human evolution and progress: realizing the meaning in consumption, which goes beyond products and transforms into purpose-driven living.

Consumer goods activities have an important impact on our society and environment. Our consumption models are directly related to delivering economic growth for businesses and nations. This puts irresponsible strains on, for example, our natural resources. The biggest challenge for retail and consumer goods is not selling more in the old-fashioned way; it is using technology to redefine production, delivery and consumption to create a world in which waste does not exist.

“ In a world where **digital** is the **normal**, physical will become the **next unique**. ”

The waste created by online shopping and convenience could even lead to the renaissance of brick-and-mortar stores as consumers become more aware of the strains on the environment caused by their online consumption behaviors. With the future potential of all technologies surrounding consumer data, the challenges also rise significantly.

The consumer goods and retail industries continually process more personal information, fueling their business models. The future of these industries requires even more personal data to analyze; without it, there would be no personalization, and limited customer experience.

But while data processing and analysis will be the core of every successful retail and consumer goods company in the future, essential to this trend is consumer trust. CEOs all over the world claim that consumer trust is harder to obtain in the ever-growing digital world. But it can be found in delivering purpose-driven products and ensuring transparency about data usage. It's all about delivering a promise and a purpose that goes beyond maximizing profits.

In an ever-connected world where our emotions, needs and wants are being monitored and transformed into products, what is free will? As algorithms increasingly decide what we need, are our personal choices really free choices, or are they being influenced by smart technology and algorithms for the sake of

profit? What are the enabling technologies really enabling? These questions will become more important for consumer goods and retail to think about and act upon.

A world dominated by digital and instant gratification will ultimately give rise to countertrends, such as the need for non-personalized and group-oriented experiences and “offline astonishment.” In a world where digital is the new normal, physical will become the next unique. In an ever more digital and artificial world, human contact is becoming the new luxury good and status symbol. Here lies a big opportunity for physical retail stores.

As businesses strive to keep up with technological innovation, they need to put digital ethics at the center of everything. Technology companies already claim to do this, but it's important to question whether these companies are able to make decisions about the ethics of their technologically driven advancements. As even governments begin to focus on digital ethics, this will become a new unique selling point for every company.



“ What are the enabling technologies really enabling? ”



The future is already here

The consumer goods and retail industries will be dominated by new technologies but from the perspective of creating real human value. The industry will shift from a system based on selling physical products in a limited and controlled world toward an interconnected, blended world of digital and physical experiences. The production-driven economy will fundamentally transform to a service-based model, driven by individual wants and needs. The manufacturing process of consumer goods will add value to society instead of extracting value and resources. Consumption will add value to the planet and the environment instead of hurting it.

Consumers will freely share their data, with full awareness of what's being shared and for what purpose. They will retain control over data privacy and who they allow to access their personal data. This data can then be translated into personalized products and experiences. Retail will be borderless and flexible and interconnected with physical stores. As people become more aware of the impact of their consumption habits, discretionary consumption will reset the business models of retail organizations

and consumer goods companies. Societal pressure will increase the availability of products that focus on health, wellness and societal inclusion. The future challenge for consumer goods and retail businesses will be to become part of the complex and diverse ecosystems of individual consumers. We'll see the transition from people serving structures to smart networks serving people. This will be the result of people wanting to live life on their own terms and demanding convenience.



Real-life cases

The following cases are inspirational and show how the retail and consumer goods industries are changing. Startups and new innovative ideas can grow but also fail fast – that is innovation at the frontiers of an industry. No business relationship exists between the cases below and Cognizant.

Loop

Loop is a circular shopping platform that transforms the packaging of everyday essentials from single-use disposable to durable, feature-packed designs.

www.loopstore.com

Vaqso VR

Vaqso adds scent to virtual reality experiences. Through a partnership with NEC Corp., the startup enables scent to be incorporated into the shopping experience. Customers can control smells during the buying process, adding an extra dimension to shopping in the virtual world.

www.vaqso.com

Mackmyra

Mackmyra is a Swedish whisky brand whose smart bottles connect customers and provide them with information about the whisky's origins, including the specific cask in which the whisky was aged. It even allows consumers to create their own personal cask, from maturation to final bottling. Mackmyra claims to have the world's first whisky created with artificial intelligence.

www.mackmyra.co.uk

MyStore-E

MyStore-E's AI-based retail intelligence platform helps retail store managers merchandise in real-time using data analytics and insights. The AI-based personal assistant monitors and aggregates data from multiple channels to provide merchandising recommendations and identify the items most likely to sell in stores based on current top sellers, social engagement, in-store planograms and local and regional factors.

www.mystore-e.com/solution

Caper

Caper offers a smart shopping cart that enables autonomous check-out in retail stores. Using deep learning and computer vision, the cart instantly detects items as they enter the cart. Customers can complete the transaction directly on the cart with credit/debit cards or mobile payments.

www.caper.ai



“Technology
changes
all the time;
human nature,
hardly ever”

Evgeny Morozov

Orient

Focused on retail and smart buildings, this startup provides GPS capabilities in indoor facilities. It enables users with highly accurate navigation on their own smartphones, helping them find people, products and optimal routes to places in a building. This allows facilities to improve their service, space utilization, staff performance and operations.

www.orient.me

Celect

This company, recently acquired by Nike, focuses on demand prediction and understanding of local consumer demand. Using data and machine learning, it gives advice on the optimal assortment for physical and virtual shops.

www.celect.com

Hypervsn

Hypervsn creates 3D holographic displays to give people greater experiences in shops and better understanding of products.

www.hypervsn.com

Prism Skylabs

Prism uses data from existing surveillance cameras to optimize stores and enhance services using location analytics. Images and footage are analyzed by machine learning and transferred to daily dashboards with information about how people move and react in the physical store.

www.prism.com

The future is human

Humans excel at being creative, at seeing, identifying and investing in opportunities, and solving problems. Our experiences and emotions – anger, sadness, love – will drive the future of shopping and consumer goods. While technology will become highly intelligent, it will never replace the human need to experience unique feelings.

The biggest challenge for retail and consumer goods organizations is to create real human value out of technological progress, and to challenge dominant mindsets and the status quo regarding consumption and production. To meet these goals, organizations will need to see people not as assets to extract money from, but as individuals with different wants and needs across their entire lives. This attitude will allow the industry to create real value for consumers.

We need to let technology help us become more human. Let us be curious about the future and not fearful. Let us, as a society, create and discover the future of consumption, and with that knowledge, rebuild the retail and consumer goods industries.

Key take-aways

1. Put customers in control of their own data, and enable them to utilize it their way.
2. Use technology to enrich the physical retail experience.
3. Never underestimate the power of physical experiences combined with virtual services.
4. Physical stores help build trust in brands if they add additional value to virtual experiences.
5. Human contact in shops can make a difference. Digital is the new normal; physical becomes the next unique.
6. Simplicity and speed in combination with human attention are key service differentiators in retail.
7. Shopping for good becomes the future of retail as the focus shifts to conscientious consumerism.

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ABOUT COGNIZANT

Cognizant (Nasdaq-100: CTSI) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 193 on the Fortune 500 and is consistently listed among the most admired companies in the world.

Driven by a passion to help our clients build stronger, more agile and more innovative businesses, we enable global enterprises to address a dual mandate: to make their current operations as efficient and cost-effective as possible and to invest in innovation to unleash new potential across their organizations. What makes Cognizant unique is our ability to help clients meet both challenges. We help them enhance productivity by ensuring that vital business functions work faster, cheaper and better. And, our ability to conceptualize, architect and implement new and expanded capabilities allows clients to transform legacy models to take their business to the next level.

Learn how Cognizant helps clients lead with digital at

www.cognizant.com

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