

CONSUMER GOODS & RETAIL

RISE OF THE CONSUMER

Anywhere. Anytime. Made for me.



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INTRODUCTION

Consumers have changed their buying behavior over the past decade forcing brands to improve their response by placing them at the center of their business strategy. Increasingly technology-savvy and demanding, consumers expect more from their brands, not hesitating to get involved and to voice their opinions from ideation to delivery. This rise of the consumer should not be taken lightly if brands want to survive. This white paper describes what consumers expect and how Dassault Systèmes' Consumer Goods and Retail industry solutions deliver tangible results.

NEW TRENDS CHALLENGING THE CONSUMER GOODS AND RETAIL INDUSTRY

Consumers have evolved

Consumers are more inclined to let brands into their lives that focus on their aspirations and sense of self. In the past, quality, price and after-sales service were the criteria of choice while today consumers judge brands on the experiences they deliver throughout the buying journey. These high-touch brands seek to connect with their consumers on an emotional level because an experience is an emotional response.

In the past, consumers were satisfied with in-store promotions and a well-furnished assortment of goods. E-commerce has disrupted the way we shop—brands that fail to digitalize will lose their relevance. With 2017 [global retail ecommerce sales](#)¹ up nearly 25% compared to 2016, digitalization is contributing to consumers' newfound power over companies they choose to buy or not buy from. Consumers want convenience to simplify their already full schedules. They want personalization and special attention to feel unique.

A well-ingrained social media culture, relatively non-existent before Facebook® and Instagram®, has also increased consumers' ability to communicate and share their opinions. Brands beware if their experiences are not up to par or the world will find out. Finally, through the rise of omni-channel models, consumers have more choice, with more buying options but also more temptation to look elsewhere. Brands that fail to provide consumers with a delightful and frictionless buying journey will fall victim to revenue loss and eventually irrelevance.



¹ https://retail.emarketer.com/article/global-ecommerce-topped-23-trillion-2017-emarketer-estimates/5a6f89f5ebd40008bc791221?ECID=SOC1001&utm_content=bufferdfa97&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

Consumers want engaging experiences

While many companies are streamlining their back-end business processes for the digital age, effective product promotion remains a bottleneck. The challenges are multifaceted: companies cannot promote their products fast enough or create the level of personalized experiences that engage consumers effectively. Yet it goes deeper than that. How do you deliver promotions globally with a local reach that takes into account different cultural and regional preferences?

Traditional approaches to content creation that rely on the physical product being available or that use CGI cannot scale effectively and are slow. Missed are key opportunities to create product momentum and capitalize on consumer sentiment. In addition, you cannot create scalable, personalized product content and marketing experiences—now a crucial part of establishing an effective customer journey.

Using CAD and Product Lifecycle Management (PLM) data available on the **3DEXPERIENCE**[®] platform, companies can create a wide range of marketing content and experiences without the need for a physical product. By leveraging existing design and engineering data, a flexible 3D visualization pipeline can be implemented that overcomes traditional content production constraints.

The creation of Marketing Master Models using the **My Retail Theatre** Industry Solution Experience with 3DEXCITE[®] enables the visualization of consumer goods and product variants used to create a wide range of multi-channel content and experiences. Examples include: images, content for product configurators, product rotations and immersive experiences. Content production can be effectively scaled to meet channel partner and end-consumer needs.

What this means for companies

Consumers' newfound power has companies scrambling to keep up and even anticipate their unpredictable behavior to maintain their loyalty and business. [According to Forrester](#)², business leaders must expand their scope of consumer understanding from historical behavior, demographics and lifestyle tendencies to their expectations, emotional motivations and contextual decisions. For example, brands must integrate a consumers' expectation for speedy delivery, which was not a "need" before Amazon[®] disrupted delivery models with 48-hour or one-day delivery services. Once consumers got a taste for this immediacy, other brands and retailers were forced to up the ante as well to compete. As a result, fast delivery became a differentiator and cause for consumer dissatisfaction and perhaps even a no-buy decision if not presented as an option.



Many lifestyle companies have expanded their global reach to increase market share and reduce production costs. However, this expansion adds complexity because they have to orchestrate their extended factories and diverse suppliers to avoid cacophony. Finally, the dominance of many established, Consumer Goods and Retail heavyweights is being incessantly challenged by start-ups. Manufacturers and retailers have to rethink their traditional business models so that they can continue to be relevant to digital savvy, experience-seeking consumers. Upheavals, therefore, in consumer behavior, global supply chain volatility and competition from more agile business start-ups are challenging brands to reassess if their current technology and business models will continue to deliver bottom line growth and prosperity.

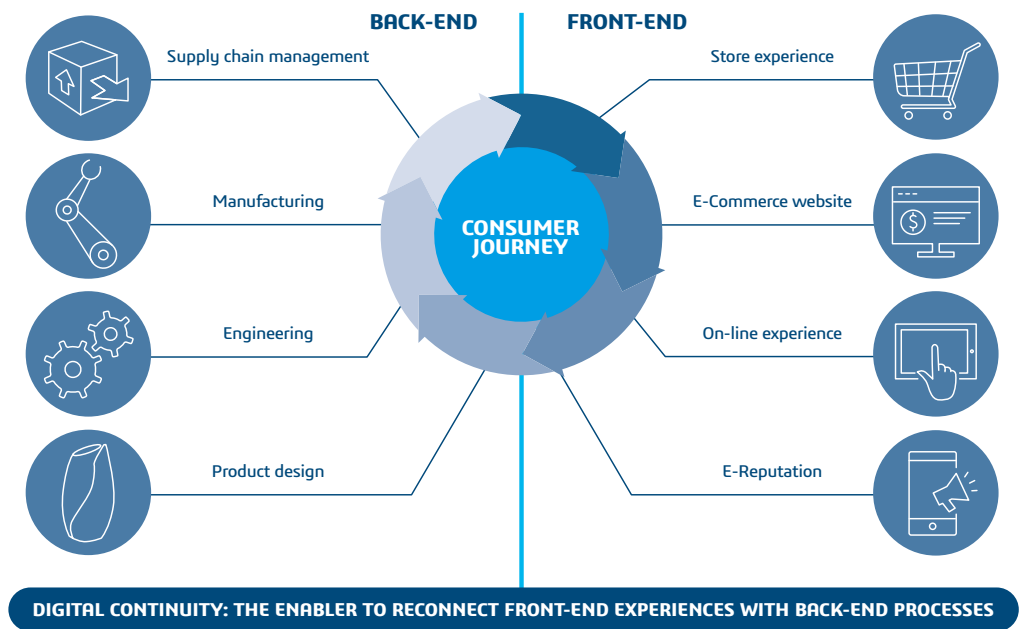
2 The Rise Of The Empowered Customer Report: Consumers' Evolving Behaviors And Attitudes Set The Pace For Innovation

WHAT BRANDS HAVE TO DO TO MEET THEIR NEW CHALLENGES AND MAINTAIN CONSUMER LOYALTY AND BUSINESS

Relentless disruption and the need for never-ending innovation should motivate companies to ask themselves one simple question: how do we place the consumer at the center of every decision we make? Many brands and retailers have expanded their global presence to reach a more diversified market.

This global presence, however, is also an opportunity to better serve consumers by leveraging local and regional facilities to reduce costs and increase manufacturing agility. While many retailers have invested heavily in the front-end of their operations, for example creating user-friendly and attractive e-commerce websites that provide consumers with engaging content, they often fail to properly link them to their back-end activities that take care of order preparation and delivery to the consumer.

As a result, the buying process is not always painless. Incomplete orders and delayed deliveries often leave shoppers frustrated and disappointed. Consumer information collected on the front end from stores or e-commerce websites during a purchase must be analyzed and used to match needs with production capacity almost immediately. While today's computing power makes this possible, it is not enough. Brands need appropriate technology to align their front-end activities with behind-the-scenes back office production and supply chain management. The technology must deliver digital continuity throughout the entire buying journey—a frictionless end-to-end experience, from product design and engineering, to manufacturing, supply chain management and retail promotion—to best serve the consumer.



Dassault Systèmes' solutions tailored for the Consumer Goods and Retail industry and based on the **3DEXPERIENCE** platform help companies implement this digital continuity so that they can faithfully deliver on their brand promise. The references below provide proof that these solutions deliver results.

HOW DASSAULT SYSTÈMES SOLUTIONS HELP COMPANIES MEET CONSUMER EXPECTATIONS

Consumers want to leave the store with their very own customized product

Not too long ago, allowing consumers to personalize their products—choosing their bag in red instead of blue, selecting leather or fabric car seats—were considered the ultimate in consumer buying experiences. But what if consumers can reengineer a product to their specific requirements, 3D print this product and walk away with something completely unique, only for them? Whereas in the first case, thousands of people can choose leather seats or a red bag and all end up with the same product, in the latter case, there is only one of a kind: your product. This one step above personalization is called product customization at scale and is the new holy grail for many consumers.

ECCO® Shoes, a world-leading Danish brand of footwear and leather goods, enables consumers during a pilot project in its Innovation Lab (Quant-U) to buy custom-manufactured shoes with midsoles tailored to their biomechanical data and 3D-printed while they are in the store. The end-to-end experience utilizes Dassault Systèmes' solutions for the critical phase of data-driven generative design in as little as 45 minutes. How does it work?

- 1** The consumer selects her/his preferred type of shoe from the brand's dedicated collection. This is done in an ECCO store with a physical product or digitally.
- 2** The consumer's foot is scanned with a 3D scanner and ECCO's proprietary wearable sensors collect data on how the wearer moves.
- 3** The resulting combined biomechanical data is interpreted by ECCO's own algorithm and captured in CATIA® to create a digital 3D model of the midsole.
- 4** Generative designs are validated using advanced simulation algorithms from SIMULIA® to ensure optimum functionality.
- 5** The final biomechanical data is transformed in CATIA into geometries for 3D printing.
- 6** In as little as 45 minutes, the customized midsoles are printed in the store from medical grade silicone known for its viscoelasticity, durability and temperature stability and inserted in the shoe model chosen by the consumer.
- 7** Approximately two hours after walking into the store, the consumer leaves with her very own customized shoes.



Made-to-fit manufacturing is an on-demand strategy that companies in lifestyle can implement thanks to digital continuity from real-time analysis, to data-driven design through to in-store 3D printing and sale. In this way, they link their front-end (marketing and sales using a 3D digital display terminal at the point of sale) to their back-end activities (design, engineering, manufacturing) in a streamlined manner.

Consumers demand higher performance products

In the domain of sports equipment manufacturing, many products are developed based on players' performance and needs. Sports equipment companies must continuously adapt their equipment using new materials and design concepts to improve sports performance. To accelerate time-to-market and reduce costs, sports equipment companies can leverage digital simulation to replace physical prototype testing, which was proved too expensive and time-consuming.

Many sports equipment companies use Dassault Systèmes' digital simulation applications from SIMULIA to accelerate development of products, enabling them to significantly reduce the use of physical prototypes. SIMULIA's results can be taken into account early in the design process, from the earliest sketches, using Dassault Systèmes' **My Product Portfolio**'s 3D capabilities for both styling and engineering. Full integration between design and simulation—made possible by the **3DEXPERIENCE** platform—enables sports companies to digitally test and validate their designs, as well as program and simulate their manufacturing processes.



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Consumers want frictionless delivery of their order

Consumers increasingly demand more choice and faster delivery. Retailers need to satisfy demand by mastering the complexities of an extended supply network to gain a competitive advantage, all while minimizing costs and reducing carbon footprint. Once companies have seduced consumers to make a purchase, they need to ensure the product is delivered without any mishaps. Similarly, based on consumer visits and buying preferences, stores need to monitor on-shelf availability to ensure consumers' repeat business. A smooth order fulfillment process will keep them satisfied and provide a better experience for everyone involved.



The Netherlands' fastest growing supermarket chain, Jumbo Supermarkten, set out to improve supply chain management throughout its 10 distribution centers, 600+ stores and approximately 500 owned and chartered trucks. To plan and optimize their supply chain, the company adopted Dassault Systèmes' **Perfect Logistics** Industry Solution Experience and its Quintiq application to render its supply chain more consumer-centric and demand-driven.

Quintiq helps Jumbo solve complex business operations challenges that include planning its transportation and warehouse capacities, home and store deliveries, inbound operations, store distribution and backhauls for all channels and logistics between distribution centers. Quintiq integrates with Jumbo's legacy solutions, giving it full visibility and control over its entire supply chain.

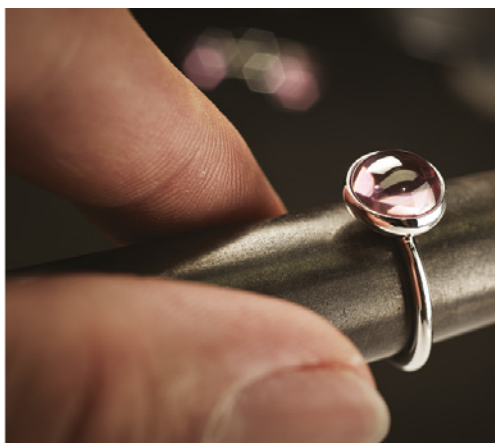
Quintiq proposes delivery options based on store opening times, specific delivery timeframes, number of employees and shifts, and different temperature compartments in vehicles. The application takes into account regulatory constraints related to the transport of fresh produce as well as truck drivers' working hours to propose an optimized planning of delivery to stores and consumers. Linked to Jumbo's website, Quintiq helps ensure digital continuity by evaluating all order fulfillment options against Key Performance Indicators (KPIs) to dynamically propose—during a consumer's check-out process—different delivery options and prices as a function of where products should be delivered. Once an option is selected, Quintiq optimizes order fulfillment by either using one of its warehouses to prepare the order or if this is too far from where the consumer lives, to have the order prepared in one of its stores nearby, which may cost more to prepare but be faster and cheaper to deliver because it is right nearby. In the event unforeseen issues arise—such as a driver missing work, poor weather conditions or traffic that can disrupt delivery—Quintiq's real-time monitoring of execution and 100% coverage from demand forecasting, supply chain control, production planning and logistics optimization provide managers with precise visibility to re-orient logistics swiftly and with minimal impact on the consumer.

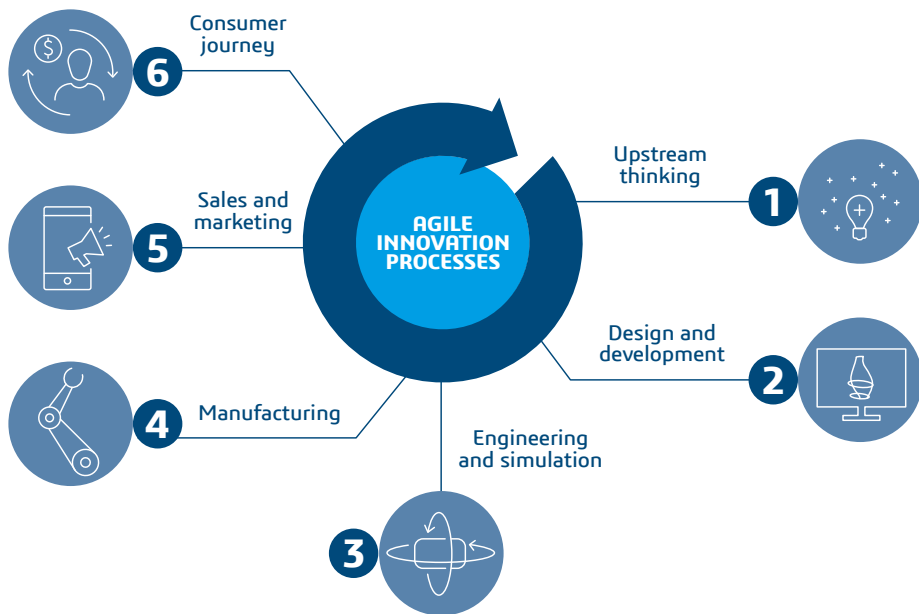
Consumers demand new products at all touch points

PANDORA®, the world's largest jewelry manufacturer, designs, manufactures and markets hand-finished and contemporary jewelry made from high-quality materials at affordable prices. The company produced more than 117 million pieces of jewelry in 2017 in its three facilities in Thailand where close to 90% of its jewelry is manufactured. To meet rising consumer demand of its products from 7,800 points of sale and more than 2,400 concept stores in over 100 countries worldwide, PANDORA aims to double its production capacity in Thailand by the end of 2019.

The company adopted Dassault Systèmes' **My Operations** Industry Solution Experience dedicated to manufacturers and retailers including its Quintiq application to manage its production planning. Quintiq helps optimize utilization of production equipment to meet its stores' on-time delivery imperatives during normal as well as high-peak periods triggered by seasonal consumer demand.

Quintiq manages PANDORA's over 16,000 human resources at its manufacturing facilities as well by ensuring that specialized craftspeople have the correct mix of skills to fulfill its production needs. With Quintiq, schedules can be recalibrated to meet changing consumer demand or production bottlenecks through real-time KPI analysis. PANDORA can consequently align production capacity with forecasted or ongoing sales, helping it to anticipate demand and to ensure rapid and financially optimized delivery to its stores. With accurate demand forecasting, PANDORA understands, predicts and accurately plans production, which improves consumer satisfaction.





CONCLUSION

Consumers are more empowered than before and are using their influence to dictate the rules of retail in the 21st century. Maintaining a close connection with consumers is paramount to a company's survival. It calls for accurate forecasting, smooth end-to-end service, and complete control of the supplier network. Linking their front-end activities with behind-the-scenes back-end production and delivery is possible with agile innovation processes. Dassault Systèmes' Industry Solution Experiences dedicated to Consumer Goods and Retail companies, which include **My Product Portfolio** for ideation and design with CATIA plus digital simulation with SIMULIA, **My Operations** with Quintiq for anytime, anywhere production and delivery, and **My Retail Theatre** with 3DEXCITE for digital marketing all provide a painless, no-worries consumer experience that cements their loyalty and repeat business.



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Our 3DEXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 220,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.

