A SHORT ARTICLE SERIES

The adoption of disruptive technologies in the consumer products industry

Spotlight on digital reality

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THE DELOITTE CENTER FOR INDUSTRY INSIGHTS
Digital reality applications in the consumer products industry have the potential to create operational efficiencies for companies as well as unique products and buying experiences for consumers.

DIGITAL REALITY IS one of the many disruptive technologies that can help build a competitive advantage for consumer products companies. Digital reality comprises newer, innovative technologies (figure 1): augmented reality (AR), virtual reality (VR), mixed reality (MR), 360-degree video, and immersive/spatial technologies. AR, VR, and MR are currently the most widely used applications, while 360-degree video and immersive technologies are in their nascent stages. Digital reality technologies can result in increased operational efficiencies for companies while offering advanced methods for consumers to interact and experience products prior to buying them. Often, digital reality product experiences help consumers make more informed purchase decisions.

FIGURE 1
Digital ecosystem of digital reality

Augmented reality
- Overlays digitally created content into the users’ real-world environment
- Features include transparent optics and a viewable environment in which users are aware of their surroundings and themselves

Virtual reality
- Creates a fully rendered digital environment that replaces the user’s real-world environment
- Features body- and motion-tracking capabilities

Mixed reality
- Seamlessly blends users’ real-world environment and digitally created content in a way that allows both environments to coexist and interact
- Utilizes advanced sensors for spatial awareness and gesture recognition

The potential use cases we’ve observed for digital reality in the consumer products industry (figure 2) result in several benefits to both companies and consumers. Companies can benefit by:

- **Creating effective marketing and advertising** through enhanced brand engagement experience and contextualization of information for their consumers
- **Driving innovation** by capturing and analyzing real-time product performance data

- **Improving employee effectiveness** while saving costs and time through real-time and interactive training
- **Increasing efficiency** in maintenance and servicing of equipment by virtually engaging the services of an expert
- **3D and interactive visualization** of products, furniture, and vehicles in the consumer’s space to help increase sales and to reduce returns

**FIGURE 2**

Possible use cases of digital reality in the consumer products industry

**Business-centric use cases**

- **Marketing and advertising through brand engagement**
  Create an opportunity for brands to virtually engage and advertise the product

- **Maintenance and service**
  Use the services of an expert to virtually service and maintain equipment

- **Product analytics and innovation**
  Capture and analyze real-time data to improve product features and performance of the user

- **In-store design and product placement**
  Simulate product configurations onsite with clients to make more informed decisions about product placement

- **Cybersecurity**
  Create programs that can detect and eliminate bots and counterfeiters in the e-commerce space

- **Employee training**
  Host interactive real-time training and product briefings across the globe

**Consumer-centric use cases**

- **Virtual shopping and product experience**
  An opportunity for consumers to virtually engage, experience, and shop for products

- **Personalized product suggestions**
  Consumers gain customized and personalized product suggestions based on specific requirements

Source: Deloitte analysis.
For consumers, the potential benefits of digital reality applications can include:

- **The opportunity to virtually engage with products** prior to making a purchase decision, potentially resulting in an enhanced and more satisfying shopping experience as well as dramatically lowering returns.
- **Personalized product suggestions** that better suit consumers’ individual requirements.
- **Product transparency.** As consumers continue to demand more information about the products they use, AR makes it easier for companies to share product instructions, demonstrations, and detail on ingredients or contents.

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**CASE STUDIES**

**MATTEL USES AR TO ALLOW CONSUMERS TO PREVIEW ITS HOT WHEELS PLAYSETS**

Mattel deploys AR to both attract and allow shoppers to experience its Hot Wheels line to make an informed purchase decision without needing to spend money. Hot Wheels consists of 12 different Hot Wheel City sets ranging in cost from US$10 to US$70. When in stores, consumers can point their smartphones at the toy box to generate a virtual setup of Hot Wheels, allowing them to visualize and experience how the car would traverse through the track.¹

**TYSON FOODS RELIES ON VR-BASED SAFETY TRAINING TO REDUCE WORKER INJURIES**

The food processing industry requires employees to maintain the highest standards of safety and efficiency. To ensure this, employees at food processing units need to undergo rigorous training programs. In 2017, Tyson Foods deployed VR to drive general safety and hazard awareness trainings for its employees with a goal of reducing injuries by 15 percent. Following this training, Tyson experienced a 20 percent reduction in injuries and illnesses of its employees compared to the prior year.²
Digital reality applications can help build a company's brand reputation for being innovative

Digital reality-based applications are rapidly moving from concept to reality while offering benefits to consumer products companies and their consumers. Companies can improve employee effectiveness, realize increased operational efficiencies, drive innovation, and better communicate with consumers. Consumers can enjoy an enhanced customer experience in all stages of their purchase journey.

To build a reputation for being innovative, consumer products companies will likely benefit from reviewing and adapting the use cases we’ve identified as well as by developing ones tailored to their organizational needs. As observed in our discussion on artificial intelligence, as consumers become increasingly comfortable with their digital reality experiences, they will likely come to expect and rely on companies to deploy digital reality applications to inform their purchase decisions and provide a more satisfying shopping experience.

Endnotes

2. Based on Deloitte's analysis of secondary literature.
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BARB RENNER is vice chairman and the US Consumer Products leader, Deloitte LLP. She has more than 25 years of professional experience serving large multinational clients through a variety of leadership roles. Renner works directly with consumer and industrial product clients focusing on their regulatory environment, supply chain, technology and processes, and other issues and opportunities. She has also served in key leadership roles with Deloitte's Women's Initiatives and Junior Achievement. She is based in Minneapolis.

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