Adoption of Leading Product Development Practices in a Digital World
Second Annual Retail Digital Innovation Survey - 2017

The retail, footwear and apparel industry is in the midst of a massive transformation. Digital technologies have disrupted the business, challenging companies to find new ways to transform their end-to-end product development lifecycle to deliver top and bottom-line results – and to stay competitive.

In 2017, Kalypso, PI Apparel and the Indiana University Kelley School of Business Center for Education and Research in Retail set out on this second annual research study to understand the adoption of digital technologies and product development practices in the industry.

Dozens of companies weighed in on use cases and supporting digital technologies across four business areas:

- **Product Development Lifecycle Process**
  - 3D Design Tools
  - Visualization Platform
  - Body Scanning
  - Avatars
  - Fit Analytics
  - Augmented Reality
  - Virtual Reality

- **Decision Making**
  - Voice of the Customer Analytics
  - Machine Learning
  - Internet of Things (IoT) Platforms and Sensors

- **Innovative Products**
  - Materials Innovation
  - Smart Connected Products

- **Digital-Enabled Business Models**
  - Mass Customization
  - Subscription
  - Crowdsourcing

Our 2017 research revealed:

- Retailers have made progress both in understanding the overall value proposition of digital in the product development lifecycle as well as in adopting specific digital technologies compared to 2016 research findings.
- Retailers are seeing the most success with their investments in the areas of voice of the customer analytics, materials innovation and 3D design tools. IoT is significantly lagging behind across the board.
- While awareness around digital benefits and opportunities has increased significantly, those who are trying to execute have had limited success. The opportunities are potentially big, but so are the challenges.
Product Development Lifecycle Process
Retailers and brands have the opportunity to significantly shorten, streamline and/or disrupt the end-to-end product development lifecycle process across innovation, design, development, sourcing and production via 3D digital product creation, leveraging a number of digital technologies such as 3D design tools and augmented reality.

What is the most valuable use case for adopting 3D digital product creation? 90% say Reducing development and production costs by leveraging more effective prototyping and sampling practices, e.g. 3D visualization, 3D printing and virtual fit testing.

What is the most important technology investment in 3D digital product creation? 3D Design Tools 79% said 3D design tools are important, yet 53% are not successful yet.

Visualization Platform 54% will be investing within the next 2 years.

What are the barriers holding retailers back from adopting 3D digital product creation?

- Talent and expertise 53%
- Change management capabilities 47%
- Funding to build a program 47%

Key Takeaway: 3D Digital Product Creation
While companies acknowledge there is significant value in adopting 3D digital product creation across the product development lifecycle, there is still room for improvement in understanding the value proposition well enough to translate the vision into programs/projects, and develop the talent and expertise needed to deliver real results.
Decision Making
Retailers and brands have the opportunity to leverage internal, external, structured and unstructured data to make better design and development decisions via advanced analytics such as machine learning, voice of the customer analytics, and IoT platforms and sensors.

What is the most valuable use case for adopting advanced analytics?

It’s a tie:
90% say
Improving the ratio of styles developed vs. styles adopted earlier in the product development process, and Detecting brand, product and consumer trend patterns which may be emerging sales opportunities

What is the most important technology investment in advanced analytics?

Voice of the Customer Analytics
90% said VOC Analytics are important, yet 60% are not successful yet

UP NEXT ON THE INVESTMENT HORIZON

What are the barriers holding retailers back from adopting advanced analytics?

Funding to build a program 46%
Lack of understanding value proposition 41%
Executive sponsorship and alignment 35%

Key Takeaway: Advanced Analytics
Voice of the customer analytics is considered the most valuable technology to enable better decisions in the product development lifecycle. Companies have yet to invest in technologies like machine learning that will allow them to more accurately predict behavior; there is still uncertainty around how to apply it to their business.

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Innovative Products
Retailers and brands have the opportunity to develop truly innovative products, differentiated and enabled by a digital component such as smart materials and IoT technology.

What is the most valuable use case for adopting digital product innovations?

What is the most important investment in adopting digital product innovations?

Materials Innovation
83% said material innovation is important, yet 47% are not successful yet

Uncertainty
44% do not know whether they’ll invest in IoT and 22% have no intention to invest at all

What are the barriers holding retailers back from adopting smart materials and IoT technology?

Key Takeaway: Innovative Products
Materials innovation is viewed as the path to more innovative products over IoT, as companies are struggling with finding the right technology to incorporate into their products that perform well and resonate with consumers at the right cost to make it worthwhile.
Digital-Enabled Business Models

Retailers and brands have the opportunity to utilize innovative business models enabled by digital technologies such as mass customization, crowdsourcing and subscription models to transform or disrupt end-to-end product development.

What is the most valuable use case for adopting digital-enabled business models?

What is the most important investment in adopting digital-enabled business models?

67% say Utilizing a mass customization model to offer unique, customized product options for consumers based on personalized profiles and interests

Mass Customization

48% said mass customization is important, yet 42% are not successful yet

Uncertainty

Up to 63% are uncertain whether they will invest in any digital-enabled business models

What are the barriers holding retailers back from adopting digital-enabled business models?

| Lack of understanding value proposition | 56% |
| Executive sponsorship and alignment | 50% |
| Funding to build a program | 44% |

Key Takeaway: Digital-Enabled Business Models

Retailers are cautious in pursuing new digital-enabled business models as they require cross-functional buy-in and threaten the current model.
Mobilizing for Digital

Retailers and brands must be able to mobilize their design, developing and sourcing teams in order translate digital opportunities into real business results.

How are retailers initiating digital programs/projects? 49% say Conducting a proof-of-concept (strategic experiment) applying the technology to business objectives and use cases

The majority indicates this approach requires:

- Co-sponsorship by two or more executives and/or a new steering committee
- New funding as digital design, development and sourcing initiatives keep losing budget to digital web/mobile commerce, marketing, stores and supply chain initiatives

The Path Forward

There are two different ways retailers can get started on their digital initiatives:

1. Align on a Program

Choose this path if consensus on where to start or what to do does not yet exist. There is a need to produce a compelling case for change and roadmap in order to get support.

- Proprietary View of the Future
- Assessment
- Strategy / Game Plan
- Hypothesis Development
- Program Definition & Business Case
- 2-3 Year Road Map

2. Get Started, Get Better

Choose this path if your leaders have a general idea of where the major opportunities lie and agree on initial areas of focus. Use success from first initiative to build broader case for change and roadmap.

- 3D Digital Product Creation
- Decision Making
- Innovative Products
- Digital-Enabled Business Models

This exclusive report for PI Apparel attendees highlights key research findings that will be discussed in focus groups on Thursday June 22 at 4:05PM and Friday June 23 at 2:35PM in Chase Room.

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