EXECUTIVE SUMMARY

2020 Annual Survey: Digital Product Creation Maturity in Retail, Footwear and Apparel
Today, most product leaders in retail, footwear and apparel (RFA) are actively pursuing some form of a **3D digital product creation (DPC)** initiative.

Retail companies are experimenting with various digital use cases, but actual maturity and link to business value varies widely.

Kalypso, The Interline and the Indiana University Kelley School of Business Center for Education and Research in Retail have partnered on this annual research.

**The goal is to create an aggregate picture of industry maturity – both current and future state – and allow individual retailers to understand where they fall on this maturity curve relative to industry average.**
40+ leaders in the retail industry weighed in on 18 DPC use cases that apply to the ways RFA companies Discover & Create, Make and Sell products.

They ranked their organization’s current and future maturity in these areas on a 1-5 scale.

They also indicated when they plan to invest in each use case, and shared some of the primary barriers to scale and investment.
Summary of Key Insights

Although the 2020 data shows a modest increase in current maturity across DPC use cases, very few companies are successfully scaling their capabilities beyond the proof-of-concept phase.

The industry is uncertain about how to scale immediate wins into longer-term transformation, and in many cases lacks the technical and operational foundations needed for scale activities.

The data shows a significant increase in expected future maturity (where retailers and brands expect to be in two years) indicating big plans and high expectations.

Nearly all companies we surveyed believe that the pandemic has accelerated the need for digital transformation within design, development, and merchandising. Yet while many say their strategies and directions have changed as a result of COVID, just over half say they have a clear and aligned strategy.

As retailers and brands become more mature, many find that process, culture, and talent are the most significant barriers to 3D DPC program success.

Source: Annual Survey on Digital Product Creation Maturity in Retail, Footwear and Apparel. Kalypso, 2020
2020 Digital Maturity Model Scale

Kalypso’s digital maturity model provides an aggregate picture of the industry’s current and future maturity based on this year’s survey responses.

Each use case’s maturity average is plotted on a 1-5 scale graph providing visibility to adoption efforts. The results help answer critical questions such as Are certain digital technologies nearing adoption maturity this year? Have any technologies not been leveraged? Where are respondents relative to the industry average?
2019 RESULTS: Where is the industry with DPC adoption?

Maturity Level:
1. Little to No Activity
2. Developing Strategy
3. Conducting POCs
4. In Process of Scaling
5. Operating at Scale

Use Cases:

**DISCOVER & CREATE**
- 3D Product Design
- Material Design & Scanning
- Digital Color & Artwork Design
- VoC Analytics Integration
- Visual Line Planning
- Design Task Automation
- Digital Product Development
- Virtual Fit Testing
- 3D Printing/Additive Manufacturing
- Automated Cut & Sew
- Development Task Automation
- Virtual Testing & Simulation
- Visual Assortment Planning/Line Review
- Virtual Showroom/Store Planning
- Digital Assets for Retail/Marketing
- Customization Platform
- Digital Assets for eCommerce
- Virtual Consumer Try-On

**MAKE**
- 3D Product Design
- Material Design & Scanning
- Digital Color & Artwork Design
- VoC Analytics Integration
- Visual Line Planning
- Design Task Automation
- Digital Product Development
- Virtual Fit Testing
- 3D Printing/Additive Manufacturing
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**SELL**
- 3D Product Design
- Material Design & Scanning
- Digital Color & Artwork Design
- VoC Analytics Integration
- Visual Line Planning
- Design Task Automation
- Digital Product Development
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- Virtual Consumer Try-On

DISCOVER & CREATE Averages:
- Current: 2.06
- Future: 2.96

MAKE Averages:
- Current: 1.77
- Future: 2.49

SELL Averages:
- Current: 1.66
- Future: 2.50

Source: Annual Survey on Digital Product Creation Maturity in Retail, Footwear and Apparel. Kalypso, 2019
2020 RESULTS: How has the industry advanced in the past year?

Use Cases

**DISCOVER & CREATE**
- 3D Product Design
- Material Design & Scanning
- Digital Color & Artwork Design
- VoC Analytics Integration
- Visual Line Planning
- Design Task Automation
- Digital Product Development
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- Digital Assets for Retail/Marketing
- Customization Platform
- Digital Assets for eCommerce
- Virtual Consumer Try-On

**MAKE**
- Conducting POCs
- Operating at Scale

**SELL**
- Conducting POCs
- Operating at Scale

**DISCOVER & CREATE Averages**

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<tbody>
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Source: Annual Survey on Digital Product Creation Maturity in Retail, Footwear and Apparel. Kalypso, 2020
Aggressive Future Maturity Goals May be Driven by COVID-19 Impacts

93% Believe that the COVID-19 pandemic has accelerated the need for digital transformation within design, development, and merchandising

78% Agree that Product Leaders have changed their digital transformation strategy as a result of COVID

59% Feel that they have a clearly defined strategy around future product-focused digital transformation initiatives

Source: Annual Survey on Digital Product Creation Maturity in Retail, Footwear and Apparel. Kalypso, 2020
When asked where they will invest in the next two years, top responses were Digital Product Development and 3D Product Design.

**What’s NOT on the radar?**
Here’s where retailers told us they DON’T plan to invest in the next two years:

- **85%** Digital Product Development
- **78%** 3D Product Design
- **78%** Virtual Fit Testing
- **71%** Visual Line Planning
- **39%** Automated Cut & Sew
- **34%** Virtual Consumer Try-On
- **34%** Customization Platform

*Annual Survey on Digital Product Creation Maturity in Retail, Footwear and Apparel. Kalypso, 2020. Average response of 'Already investing', '1-12 months', and '12-24 months';*
Most Significant Barriers to Scale 3D Capabilities

- Building the **process** and **culture** to embrace a virtual presentation/world of products
- Lack of the required digitally-trained **talent**, like 3D designers, to develop the digital assets
- **Justifying an investment** in a program like this given the current business model, margin, and/or products
- Lack of **executive sponsorship** and alignment to implementing digital tools in product development
- Considerable gap in on-boarding **suppliers** so we can share tools and information
- Lack of a **vision** or common understanding of the desired end state
- **Funding** and resources to acquire licenses, equipment, and train teams
- Deciding on which **technology** is the right technology to integrate with the development process

**As companies have begun to scale, many have found that process, culture, and talent are the most significant barrier to program success.**
How is the Industry Tackling Product and Material 3D Asset Creation?

How is your organization accomplishing 3D Product Creation?

- **Vendor/Factory**: 33.8%
- **Centralized Internal Team**: 31.0%
- **In-Line Team**: 18.0%
- **Agency / 3rd Party**: 13.5%
- **Other**: 3.7%

How is your organization accomplishing 3D Material Creation?

- **Centralized Internal Team**: 39.0%
- **Vendor / Mill**: 25.6%
- **In-Line Team**: 17.9%
- **Agency / 3rd Party**: 11.6%
- **Other**: 5.9%

- Respondents are split roughly equally between leveraging internal and external teams to digitize 3D assets.
- The majority (75% for products, 67% for materials) split their digitization across multiple sources.
- Less mature respondents tend to source their 3D assets exclusively from one source.

Source: Annual Survey on Digital Product Creation Maturity in Retail, Footwear and Apparel. Kalypso, 2020
### Why Are Companies Failing to Scale?

**13 COMMON DPC PITFALLS (in no particular order)**

1. Executive sponsors are too junior
2. Don’t really understand the technology
3. No/limited business case and/or definition of success
4. Limited, inadequate budget
5. Attempt to execute with part-time resources
6. Apply it too narrowly to the business
7. Don’t invest in talent re-skilling & hiring
8. Don’t fully leverage vendor partners
9. Don’t build a proper foundation of standards, libraries and foundation technology
10. Don’t properly charter POCs and Pilots
11. Don’t properly redesign the underlying processes
12. Underestimate people impact
13. Fail to anticipate the technical integration needs

For further reference: *Accelerate Your Transition to DPC with Practical Lessons Learned*
# Leading Practices to Overcome Scaling Challenges

<table>
<thead>
<tr>
<th>Cross-Functional DPC Sponsorship and Governance Model</th>
<th>Program Charting and Phasing with Clear Success Criteria</th>
<th>Consistent Terminology around Use Cases with Common Understanding</th>
<th>Aligned Vision that Prioritizes the Use Cases into Clear Program Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined Program Plan Including POCs, Pilots, and Foundational Work</td>
<td>Program Threads that Logically Structure the Transformation Work</td>
<td>Program Organizational Chart that Defines Roles and Accountabilities</td>
<td>Scaling Plan that Outlines how Scope will Increase Over the Life of Program</td>
</tr>
<tr>
<td>Holistic Benefit Case with a Focus on Tracking Value Metrics and Adoption</td>
<td>Investments to Stand Up New Processes, Resources &amp; Technology</td>
<td>A Focus on Leading the Organization through the Change</td>
<td>Technology Integrations that Enable Efficiency, Automation, and Speed</td>
</tr>
</tbody>
</table>

For further reference: [Accelerating Digital Transformation for Retailers and Brands](#)
Lessons Learned

Although many companies have started executing proofs of concept, they often find real obstacles that they must overcome to successfully launch and scale DPC.

**Collaboration Inside & Outside**
Requires greater levels of collaboration and a complex RACI Model

**Holistic, Cross-Functional Strategy**
A portfolio of connected DPC activities across functions is needed

**It’s More Than Just One Technology**
It’s not just about selecting a 3D tool for designers

**Process Flows & Tools Vary by Category**
Each category has specific needs for 3D, and often a specific suite of tools and processes

**Solid Data Foundation is Critical to Scale**
PLM and DAM are interdependent and necessary for DPC success

**New Talent and Org Structures**
3D is a different skillset; there will be years of parallel pathed talent

**Proof of Concept Purgatory is Real**
It’s easy to run a POC, but very difficult to fund it & scale it afterwards

**Doing Something is Better...**
DPC is a multi-year journey. Better to start now than wait

For further reference: Accelerate Your Transition to DPC with Practical Lessons Learned
It’s not too late to participate!
visit the link below and complete the 2020 survey to see how you stack up against industry average

Visit kalypso.com/retail2020

For more information contact:

Will Yester
will.yester@kalypso.com
Director, Retail
Kalypso
Research Demographics
The respondents are cross-functional executives and functional leaders with purview over digital product creation initiatives.

- 24% Product Development
- 12% IT
- 12% Other
- 20% Merchandising
- 10% Product Design
- 10% Executive
- 10% Operations
- 2% Innovation

Wide Range of Size and Product Types

Indicate your company’s annual revenue

<table>
<thead>
<tr>
<th>Revenue Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20B+</td>
<td>98%</td>
</tr>
<tr>
<td>$5.1B-$20B</td>
<td>61%</td>
</tr>
<tr>
<td>$1.1B-$5B</td>
<td>27%</td>
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<tr>
<td>$501MM-$1B</td>
<td></td>
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<tr>
<td>$0-$500MM</td>
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<tr>
<td>NOT AVAILABLE</td>
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</table>

What product categories does your company/brand design and develop?

- Apparel: 98%
- Accessories & Equipment: 61%
- Footwear: 49%
- Hardlines & Home Goods: 27%