

TROV&

REBUILDING RETURNS FROM THE INSIDE OUT

How the right returns tech can deliver
operational cost savings, higher margin
recovery, and deeper inventory insights
for retail brands and 3PLs



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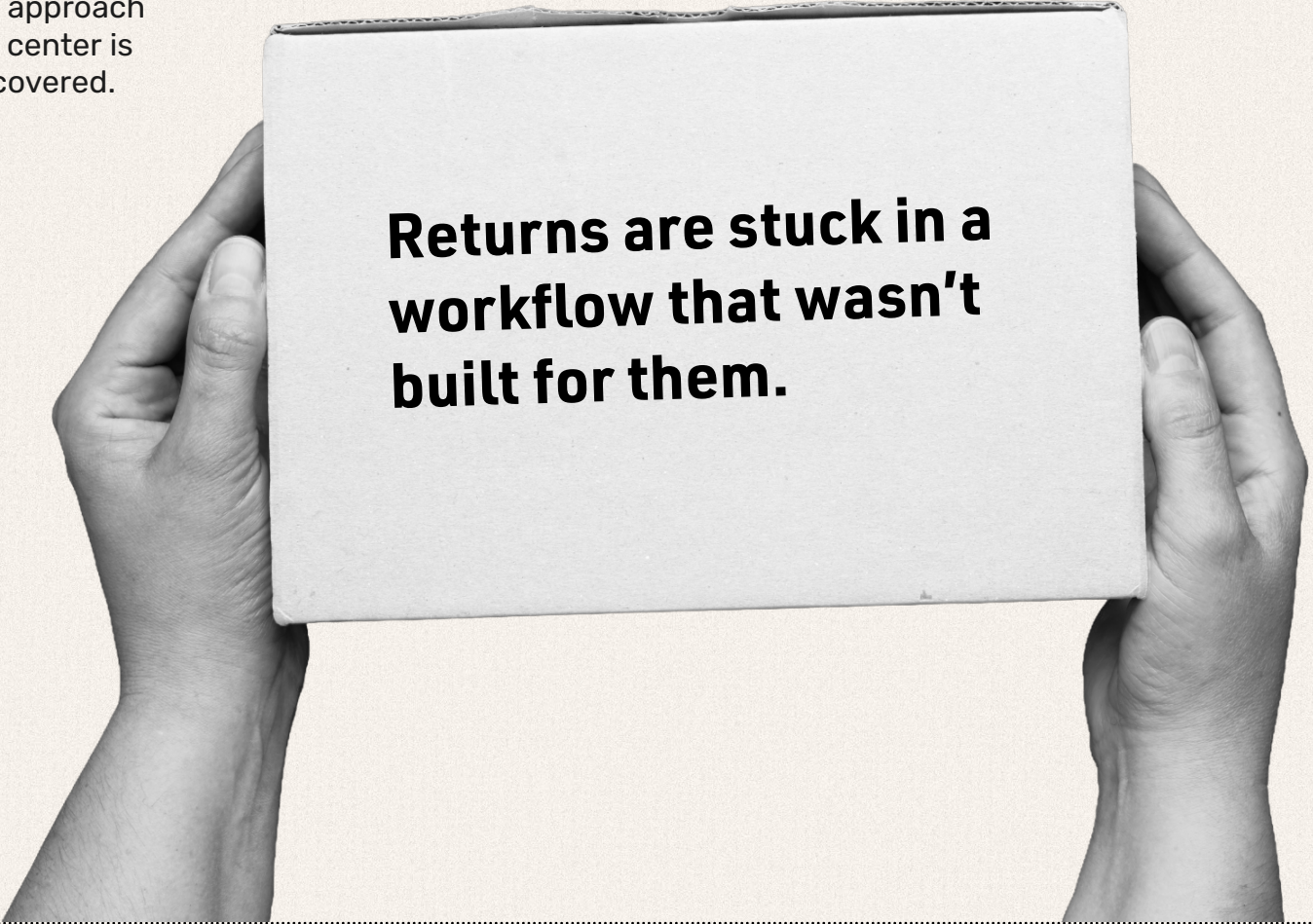
Reframing Returns for Margin Recovery

In 2024, U.S. retailers processed **\$890 billion** in returned merchandise, nearly **17% of all sales**.

For leading brands, that scale is shifting how they approach reverse logistics. What was once treated as a cost center is becoming core to how margin is protected and recovered.

Most returns are still processed through systems built for outbound shipping, which weren't created with complex decision making in mind. Today, returns depend on visibility into each item and workflows truly built for returns to drive the right outcomes.

Leaders are building for that reality. They're treating reverse logistics as **margin infrastructure**, where every return is handled with the intent to recover value. Let's find out how.

A pair of hands is holding a white cardboard box. The box is oriented horizontally and has bold black text printed on its front face. The hands are positioned on the left and right sides of the box, with fingers visible gripping the edges. The background is a light, neutral color.

**Returns are stuck in a
workflow that wasn't
built for them.**

Fixing Your Returns Process is No Longer Optional

Every slow return costs you money – and customer loyalty.



Lost revenue: The holiday surge alone adds roughly **\$160 billion in returns** in just a few weeks, overwhelming warehouses and exposing cracks in outdated systems. Teams scramble to keep up, and valuable inventory gets stuck in limbo.



Customer expectations: **82% of shoppers** now expect free returns. Two-thirds say they won't buy again after a bad return experience, and more than half have high expectations on speed, expecting refunds within 24 hours.



Fraud: **93% of retailers** report some form of abusive returns behavior, and the lack of visibility across systems makes it hard to detect or prevent.



82% of customers expect free returns

93% of retailers report policy abuse

Section 1

A Closer Look At Today's Returns Process

To understand where returns go wrong, it's helpful to look at how most processes work now. The returns journey spans multiple systems and handoffs, from the customer's first click to the warehouse dock to finance – but those steps rarely connect in a single, continuous flow.

Each part of the process runs on its own tools and data, which makes coordination difficult. What feels simple to the customer (print a label, send it back) is in reality a complex chain of events that create bottlenecks, delays, and lost visibility.

1. Customer initiation + first mile

The return starts when a shopper clicks a portal link, emails support, or walks into a store. It sounds simple, but it's where things start to break down. While first-mile returns portals offer many useful features, reason codes can still be vague ("didn't fit") and warehouses don't receive heads-up on the overall volume that's coming back.

Pain points: Limited visibility into incoming volume, low-quality reason data, and little coordination between customer actions and warehouse planning.

The tech in play: Returns portals, customer support tools, and carrier integrations that generate labels or QR codes.



Inside every return:
data, decisions, and complex
downstream workflows that
customers don't see.

2. Dock check-in

When a return arrives, the first step is confirming what it is and where it came from. Items are scanned, verified against the Return Merchandise Authorization, and inspected for obvious issues like damage or missing parts. The goal here is to capture accurate data and photos so downstream steps have reliable information.

But this is often where breakdowns begin. Associates have limited context, and intake tools are basic. Without standardized capture or clear visibility, details go missing and data quality suffers before the item even reaches grading.

Pain points: Incomplete or inconsistent data capture, limited item context at intake, and early data loss that impacts every downstream decision.

The tech in play: Warehouse scanners, basic WMS or ERP intake modules, spreadsheets, handheld photo tools.

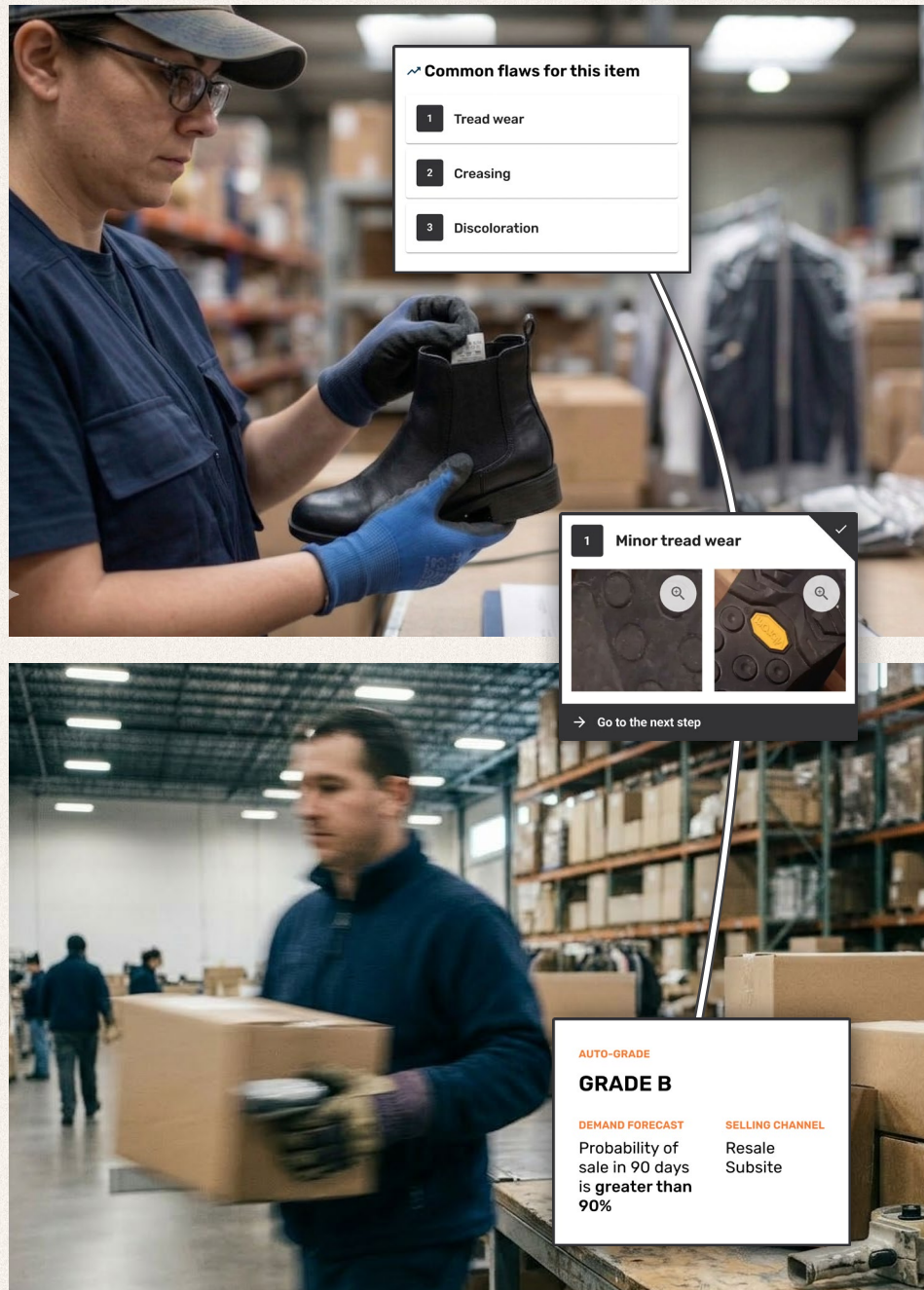
3. Grading and routing

Once checked in, the focus shifts to assessing condition and determining next steps. Associates assign grades and make routing calls: to restock, refurbish, resell, or liquidate. But without consistent standards or visual guidance, results vary. The same item might be graded differently by different people or even processed twice.

Pain points: Inconsistent grading decisions, lack of standardized criteria, and routing variability that reduces resale value and slows item movement.

The tech in play: ERP/WMS routing logic, manual grading sheets, disposition dashboards, limited reporting tools.





4. Refunds and communication

Meanwhile, the customer is waiting. Refunds are usually processed in batches, and templated updates don't tell shoppers much about where their return stands. Limited synchronization between finance, CX, and warehouse systems leads to slow refunds and customer frustration.

Pain points: Delayed refunds, lack of real-time visibility for customers, and disconnected systems that create friction across teams.

The tech in play: Payment gateways, finance systems, CRM tools, and email automation platforms.

5. Relisting and recovery

Finally, returned items make their way back into the ERP or inventory system to be relisted. That handoff can take days (or more), creating data lag and missed opportunities, especially for seasonal products that lose value fast.

Pain points: Slow time-to-relist, inventory sitting idle, and lost resale value due to delays and poor system coordination.

The tech in play: ERP systems, eCommerce platforms, and manual SKU reconciliation spreadsheets.

Section 2

What Moves the Needle on Returns

By now, it's clear where most returns processes break down: across the gaps between systems, decisions, and teams. The shift isn't about fixing one step. It's about building a returns operation that can move inventory with speed, consistency, and control. Here are the levers to consider:

1. Move items faster, with fewer touches

Speed is what protects margin. High-performing operations reduce handoffs and bring inspection, grading, and routing into a single, guided flow. Trove RMS customers have seen:



2-2.5x faster unit processing by combining steps into one continuous workflow



20-40% reduction in labor costs by eliminating manual processes and minimizing touches



Faster onboarding, with new associates quickly ramping productivity

The screenshot shows a mobile application interface for 'Item Inspection'. At the top, there's a header with a menu icon and the title 'Item Inspection'. Below the header, there's a progress bar with three steps: 'Item' (checked), 'Confirmation' (checked), and 'Checklist' (checked). The main content area is titled 'Record any item flaws' with a subtext 'Review your item for flaws; if you find any, add them below.' Below this, there's a section 'Select a flaw type:' with two columns. The left column is titled 'Most common' and contains two items: '1 Fading' and '2 Unthreading'. The right column is titled 'Other' and contains two items: 'Hole' and 'Matting'. At the bottom, there's a 'Shortcuts' button.

2. Strengthen fraud control with built-in evidence

Returns fraud thrives in low-visibility environments. With standardized documentation and decisioning, teams catch issues earlier, with:

- 📷 A clearer audit trail due to photo capture and documentation at intake
- 🛡️ Ability to flag suspicious returns and gate refunds based on item condition or behavior
- 👤 Faster resolution for CX and finance teams with immediate access to item-level evidence

3. Recover more value with item-level data

When every item is tracked, documented, and routed based on its actual condition, teams can operate with greater control, with:

- 👁️ Item-level visibility from intake through resale, including condition, images, and more
- 🛒 **60-80%** higher recovery value for B-grade and imperfect items vs. traditional liquidation
- ▶▶ Faster time-to-relist improves speed to cash and protects seasonal inventory value



These are a few of the levers that drive better returns performance, but they don't exist independently. Each one depends on shared data, consistent workflows, and coordination across teams. Without that, improvements in one area often break down in another.

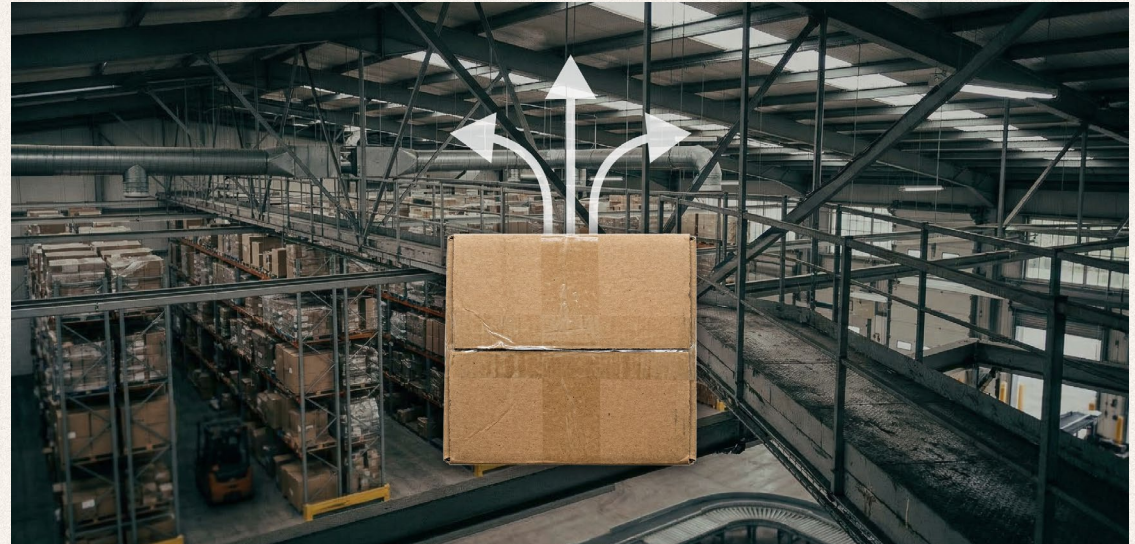
That's why leading brands are turning to different solutions that bring these levers together.

Section 3

Choosing the Right Approach for Returns Technology and Workflows

Achieving these improvements in returns may look different for every brand. Some may make small tweaks to existing tools. Others invest in purpose-built systems. The goal is finding the setup that brings speed, visibility, and consistency to the inbound process.

Consider these three approaches.



1. The Patchwork Approach

Many brands start here: linking their returns portal, ERP, and WMS with a few custom fields and manual steps, relying on their 3PL to manage the hands-on work. It's practical and familiar, but as volume grows, the seams start to show.

Pros

- Builds on systems and relationships already in place
- Quick to implement, low up-front investment
- Suitable for early-stage programs or limited return volume

Cons

- Outbound systems don't capture the nuance of inbound returns
- Delayed or incomplete data flows between 3PL and brand
- Inconsistent grading and item routing reduce resale potential
- Process improvements require long coordination cycles across multiple teams

2. The DIY Custom Build

Some brands choose to build their own internal solution. It's tailored to their products and processes, but often becomes a long-term engineering and maintenance commitment.

Pros

- Fully customized for brand-specific needs
- Seamlessly integrates with internal systems
- Enables unique logic or niche workflows

Cons

- High engineering and resource investment to develop and maintain
- Long timelines for rollout and feature updates
- Complex to scale across new geographies or partners
- Competes with other tech priorities on the roadmap
- Knowledge risk: key logic or infrastructure often lives with a few engineers
- Opportunity cost: time spent building could be spent optimizing operations

3. The Purpose-Built RMS

A Returns Management System is designed from the ground up for inbound operations. It bridges the gap between systems and creates one seamless workflow where every item follows the same data-driven path.

Pros

- Real-time visibility at the item level
- Guided workflows for faster, consistent grading
- Accelerated refunds and relisting for better CX
- Seamless integration with existing partners and systems

Cons

- Introduces new visibility that may surface inefficiencies - useful, but sometimes uncomfortable at first
- Brings measurable accountability to processes that used to run quietly in the background
- Needs an internal champion to own continuous improvement

CASE STUDY: LOVESAC

From Manual Returns to Margin Recovery

Challenge

Lovesac's returns process relied on manual workflows and spreadsheets to track and route incoming items. As volume grew, maintaining visibility and control became increasingly difficult across bulky products and high return rates.

Solution

With Trove's Returns Management System, Lovesac introduced auto grading and visual workflows to improve control and consistency across returns processing. Lovesac also leveraged Trove's item-level visibility to track every product from intake through resale, with specific visibility into each product SKU, allowing the team to spot recurring issues.

Results

- » Liquidation rates dropped from ~20% to 10-13%
- » Fraud decreased with improved tracking and auditability
- » Guided workflows made peak periods more manageable
- » Returns shifted from a manual process to a more controlled, data-driven operation.

"Trove has made us a stronger, smarter operation. The visibility and data have changed how we think about returns."

Linda Quinn, Sr. Director of
Service Commercialization, Lovesac



Section 4

Where to Get Started

Building (or rebuilding) your returns operation doesn't happen overnight. The smartest teams begin by creating visibility, aligning their partners, and layering in purpose-built tools where they'll make the biggest impact.

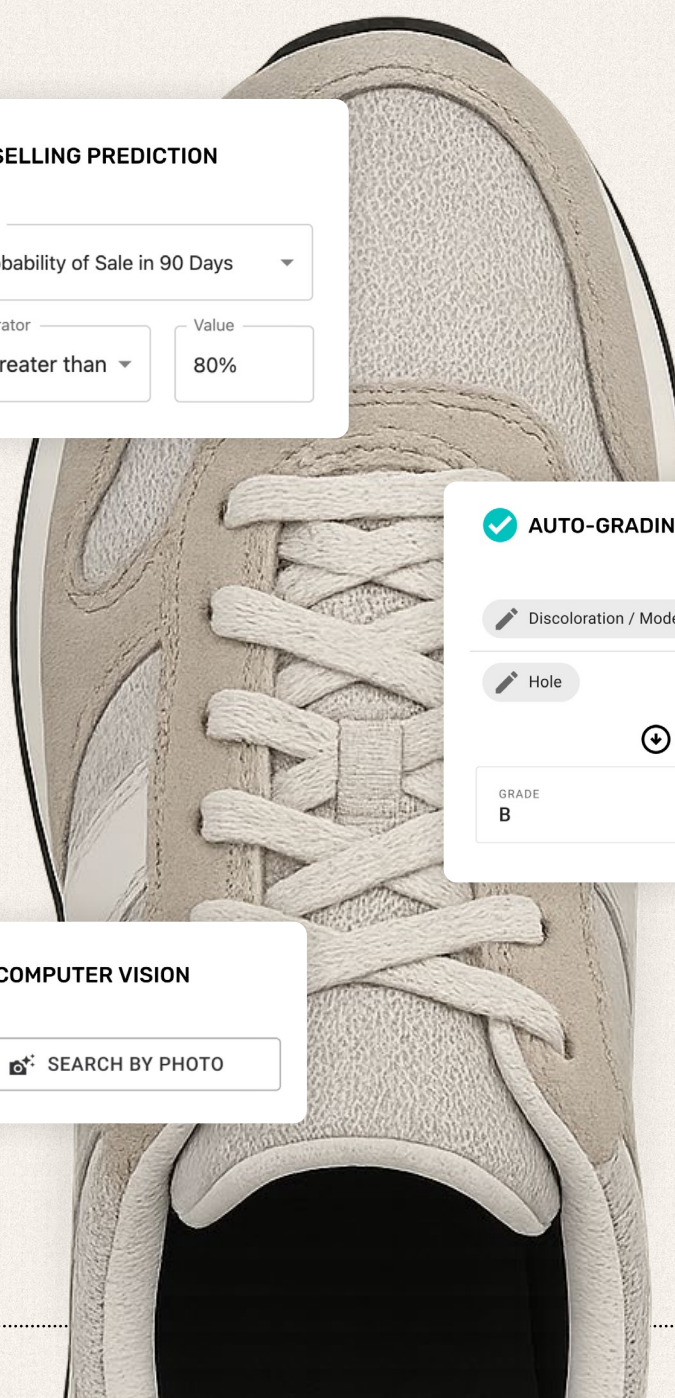
STEP 1

Establish item-level visibility as your baseline

Leading teams focus on visibility at the unit level. Return-to-stock rate and time-to-list are directional, but they don't explain why value is being lost. The goal is to understand:

- How items flow across conditions and outcomes
- Where grading or routing variability impacts recovery
- Which categories or SKUs consistently underperform

This builds a decisioning layer grounded in real item behavior.



✓ SELLING PREDICTION

Field
Probability of Sale in 90 Days

Operator
is greater than

Value
80%

✓ AUTO-GRADING

Discoloration / Moderate / Insoles

Hole

↓

GRADE
B

3

✓ COMPUTER VISION

SEARCH BY PHOTO

STEP 2

Deconstruct the workflow into decision points

Most returns processes are mapped as steps. More advanced teams map them as a series of decisions. Once mapped, ask 'Where are decisions made with incomplete or inconsistent information?' and 'Where does variability introduce rework or margin loss?'

This reframing makes it easier to target where standardization

STEP 3

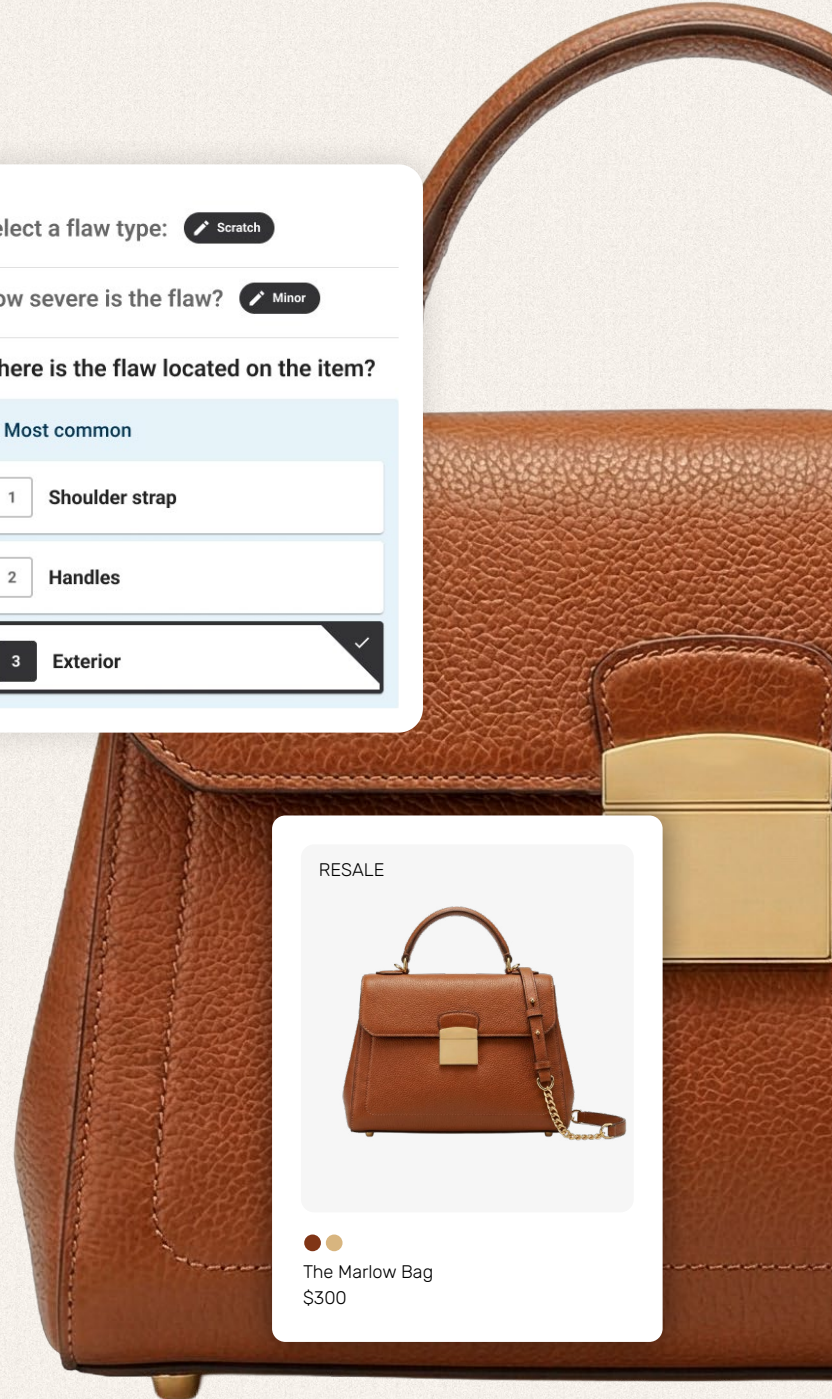
Introduce structure where variability is highest

The highest leverage comes from addressing variability, typically in grading, routing, and exception handling. Structured workflows and rule-based decisioning reduce subjectivity at intake and improve consistency across teams and facilities.

STEP 4

Build for iteration, not a single rollout

The strongest teams treat returns as an operating model that improves over time. New workflows, tools, and visibility layers are introduced in stages, tested against real item behavior, and refined based on impact. With optimization, this creates



Select a flaw type: ☐ Scratch

How severe is the flaw? ☐ Minor

Where is the flaw located on the item?

↗ Most common

- 1 Shoulder strap
- 2 Handles
- 3 Exterior ✓

RESALE



● ●
The Marlow Bag
\$300

Returns don't have to be a drain on your business.

With the right mix of process, data, and technology, they can become a profit center and a brand advantage, one that strengthens customer trust while recovering more value from every item.

A purpose-built RMS gives you the framework to do just that: faster movement, consistent grading, and visibility at the item level. The brands that start now will be the ones leading the way in modern returns.

Ready to learn how Trove's Returns Management System can drive a smoother and impactful returns workflow? Get started.

Visit us at www.trove.com to schedule a demo.



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