E-COMMERCE · MERCHANDISING AUTOMATION

Product recommendation engine

This workflow automatically generates personalized product recommendations for customers based on their browsing behavior and purchase history, increasing conversion rates and average order value.

01 WORKFLOW TRIGGER

Customer views a product page or adds item to cart

BLUEPRINT OVERVIEW

What this workflow accomplishes

This workflow connects your storefront platform (Shopify, BigCommerce, or WooCommerce) to Klaviyo through an n8n orchestration layer so that browse, cart, and purchase events produce personalized recommendation sets without a merchandiser touching each one. Automation handles history retrieval, catalog similarity scoring, strategy selection, and slot rendering. Merchandisers keep authority over exclusion rules, margin floors, email send windows, and which widget placements go live.

01

OUTPUTS

Ranked recommendation set per shopper, Klaviyo recommendation email send, On-site product and cart widgets, Slot-level performance log

02

SUCCESS MEASURES

Recommendation slot click-through rate, Average order value lift, Email recommendation conversion rate, Out-of-stock recommendation rate

03

CORE SYSTEMS

Shopify, BigCommerce, WooCommerce, Klaviyo, n8n

HOW TO USE THIS BLUEPRINT

Merchandising leads: set the exclusion list, margin floor, and inventory threshold before the first run, then review the weekly slot performance report.

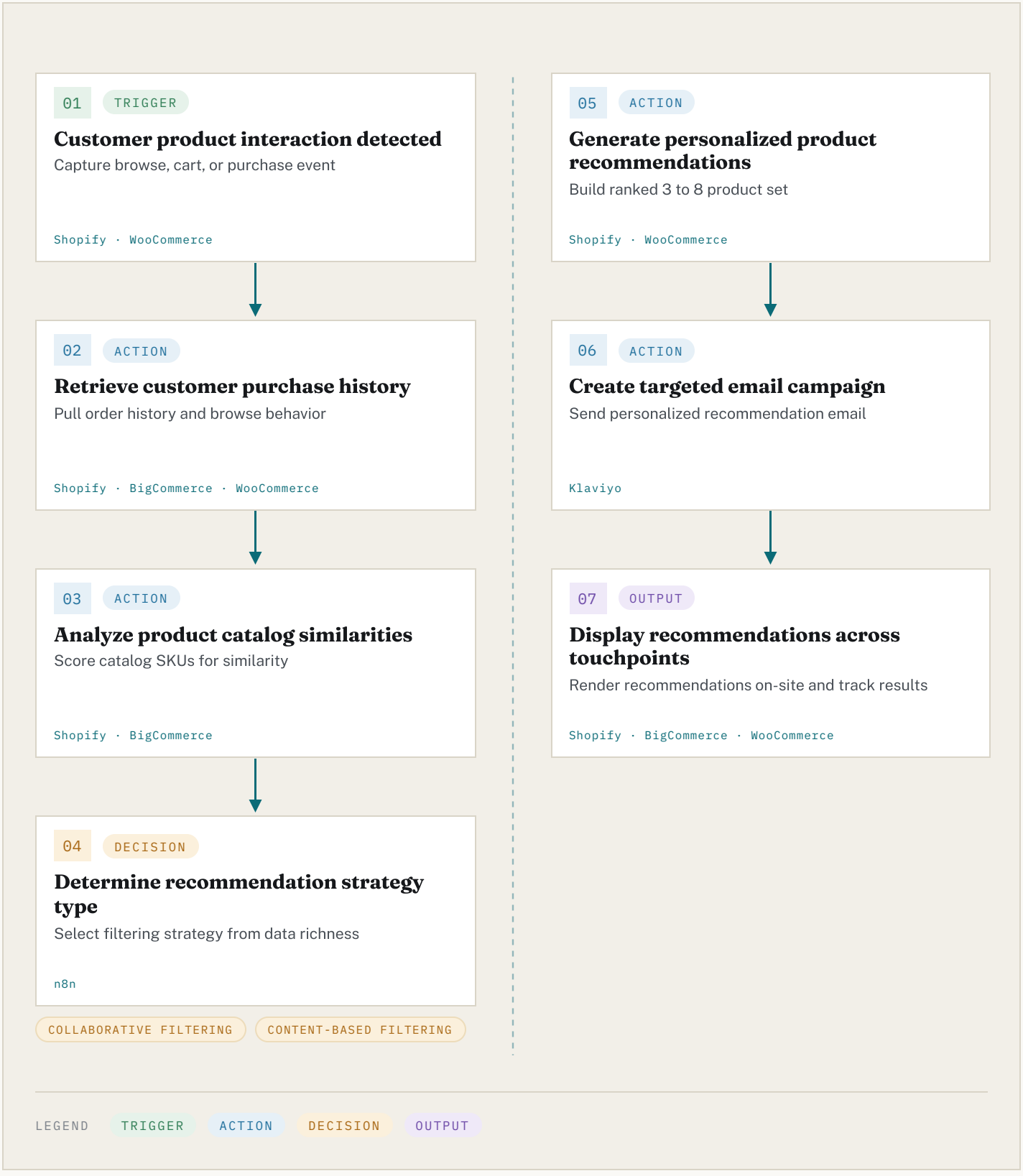
Email and lifecycle teams: approve the Klaviyo template, the send window per segment, and the suppression rules so recommendation emails do not collide with promotional sends.

Implementation teams: build the n8n branch logic and confirm read scopes on order history, then test both strategy routes against a known repeat buyer and a first-session visitor.

THE WORKFLOW

End-to-end stage map

Seven stages run from the product interaction event through to on-site widget rendering. The decision at stage 4 governs whether a shopper is scored with collaborative filtering against buyer cohorts or content-based filtering against catalog attributes alone.



IMPLEMENTATION DETAIL

Stage-by-stage breakdown

Each stage states the operational intent, the human control point, and the systems likely to take part. System names are examples, not a required architecture.

01 TRIGGER

Customer product interaction detected

Customer views a product page, adds item to cart, or completes a purchase. This event captures the customer ID and product details to begin recommendation analysis.

CONTROL POINT

The store operations owner defines which event types fire the workflow and can mute triggers during flash sales or catalog migrations.

SYSTEMS Shopify WooCommerce

02 ACTION

Retrieve customer purchase history

Pull the customer's complete order history, browsing behavior, and demographic data from the e-commerce platform. Gather product categories, price ranges, and purchase frequency patterns.

CONTROL POINT

Human control: the data owner approves the customer fields retrieved and honors any shopper who has opted out of personalization.

SYSTEMS Shopify BigCommerce WooCommerce

03 ACTION

Analyze product catalog similarities

Compare the viewed/purchased product against the entire product catalog using attributes like category, price, brand, and customer reviews. Generate similarity scores for potential recommendations.

CONTROL POINT

Merchandisers maintain the attribute weights and the do-not-recommend list, and can force a SKU out of scoring at any time.

SYSTEMS Shopify BigCommerce

04 DECISION

Determine recommendation strategy type

Branch workflow based on customer data richness - use collaborative filtering for returning customers with purchase history, or content-based filtering for new customers with limited data.

CONTROL POINT

The merchandising lead sets the order-count threshold that splits the two routes and can pin a segment to one route manually.

SYSTEMS n8n

COMPLETION AND MEASUREMENT

Closing stages and results

The closing stages carry the recommendation set into the email flow and the on-site slots, and record click-through and attributed order value for each placement.

05 ACTION

Generate personalized product recommendations

Create a ranked list of 3-8 recommended products based on the chosen strategy. Include complementary items, similar products, and trending items in the same category.

CONTROL POINT

Merchandisers review sample recommendation sets weekly and override rankings that breach margin floors or brand adjacency rules.

SYSTEMS Shopify WooCommerce

06 ACTION

Create targeted email campaign

Build and send personalized email with product recommendations, including product images, descriptions, and special offers. Segment timing based on customer behavior patterns.

CONTROL POINT

The lifecycle marketer approves the Klaviyo template and send window before the flow leaves draft, and holds authority to pause sends.

SYSTEMS Klaviyo

07 OUTPUT

Display recommendations across touchpoints

Show personalized recommendations on website product pages, cart page, and checkout flow. Track click-through rates and conversion metrics for optimization.

CONTROL POINT

The site owner approves each placement on product, cart, and checkout pages and can pull a slot if click-through falls below the agreed floor.

SYSTEMS Shopify BigCommerce WooCommerce

DELIVERABLES

- Ranked recommendation set per shopper
- Klaviyo recommendation email send
- On-site product and cart widgets
- Slot-level performance log

KEY METRICS

- Recommendation slot click-through rate
- Average order value lift
- Email recommendation conversion rate
- Out-of-stock recommendation rate

IMPLEMENTATION CHECKS

- Customer data read scopes limited
- Browsing event retention window set
- Email send approval routed to lifecycle
- Out-of-stock and unpublished SKUs filtered
- Widget render logged for attribution

NEXT STEP

Turn this blueprint into an implementation plan.

Map each stage to your own systems, permissions, and approval routing before selecting tools or building automation.

packfoundry.app/assessment

E-COMMERCE WORKFLOW PACKS AND A FREE ASSESSMENT