

AI-Powered E-Commerce Checkout System

Collected Customer Feedback, Pain Points & Quotes

A. Summary of Customer Feedback

Users reported several critical themes in checkout experience:

Mobile checkout instability: Forms reset unexpectedly, causing frustration especially on phones.

Hidden fees: Unexpected shipping, taxes, or fees appear only at the final step.

Cluttered interface and small touch targets: Difficult to interact on mobile devices.

Promo code difficulties: Promo code fields are hard to find or validate properly.

Slow or unclear payment confirmation: Users feel uncertain if payment succeeded.

Vague validation messages: Error messages lack specificity, impeding correction.

Poor mobile accessibility: Issues with touch size, screen reader compatibility.

Confusing guest checkout: Navigation and form complexity deter guest users.

Lack of upfront total cost transparency: Users dislike surprises at checkout.

Complex cart editing: Removing or changing items in cart is difficult.

B. Ranked Pain Point Categories

Mobile checkout form resets and instability

Last-minute unexpected costs and fees

Cluttered interface with small touch targets

Difficulties applying and validating promo codes

Slow or unclear payment confirmation

Vague or confusing validation/error messages

Poor mobile accessibility and touch design

Confusing guest checkout process

Lack of upfront transparency on total costs

Complex item removal or editing options in cart

C. Representative Quotes

“On my phone, the checkout form kept resetting, making it frustrating to complete my purchase.”

— User Feedback #1

“I only saw extra shipping fees at the very last step, which made me hesitate.” — User Feedback #2

“The promo code field was hard to find and didn’t always work.” — User Feedback #3

Task 2: User Personas

Persona 1: Returning Loyal Customer

Name: Sarah Johnson

Age: 34

Location: New York, NY

Occupation: Marketing Manager

Archetype: Loyal, tech-savvy shopper

Goals: Fast, reliable checkout; earn loyalty rewards

Frustrations: Payment resets, hidden fees, complex forms

Shopping Behavior: Shops frequently on mobile & desktop

Preferred Devices: Smartphone, Laptop

Quote: “I want a quick checkout and to see all costs upfront.”

Trusted Brands: Amazon, Apple, Walmart

Persona 2: Mobile-First Shopper

Name: David Lee

Age: 20

Location: San Francisco, CA

Occupation: Software Developer

Archetype: Tech-savvy, impatient mobile user

Goals: Complete purchases swiftly on mobile

Frustrations: Small touch targets, page reloads, form validation errors

Shopping Behavior: Prefers mobile, quick decision-maker

Preferred Devices: Smartphone

Quote: “I need to fill out forms quickly without errors or delays.”

Trusted Brands: Zappos, Etsy, Best Buy

Customer Journey Map (Across 5 Key Stages)

Stage	Actions & User Tasks	Emotions	Touchpoints	Pain Points & Opportunities
Browsing	Searching, filtering, viewing products	Excited, focused	Homepage, search bar, filters	Improve filter visibility & speed; add deal cues
Add to Cart	Selecting items, viewing recommendations	Confident, satisfied	Add buttons, cart icon	Simplify add-to-cart; prevent accidental removals
Checkout	Filling shipping/payment info, reviewing	Anxious, overwhelmed	Checkout forms, progress bar	Show total costs upfront; streamline forms
Payment	Entering payment details, applying codes	Frustrated, hopeful	Payment forms, promo input	Clear validation; persist inputs; immediate feedback
Confirmation	Reviewing final order, receiving confirmation	Relief, satisfaction	Confirmation page	Highlight key info; reduce clutter; confirm success

Features Mapped to Pain Points & Prioritized List:

Pain Point	Feature	Microcopy / Guidance	Priority	Feasibility	Notes
Mobile form resets & instability	Auto-save form data and state preservation	“Your information is saved automatically.”	High	High	Ensures data persistence during checkout
Last-minute hidden costs	Display all fees upfront	“Total estimated cost: \$XX (including taxes & fees).”	High	Medium	Builds trust; reduces cart abandonment
Cluttered checkout layout	Simplified, mobile-optimized interface	Larger buttons, minimal design, clear steps	High	Medium	Enhances usability and accessibility
Difficult promo code application	Dedicated input with real-time validation	“Enter promo code” / “Code applied successfully!”	High	High	Immediate feedback reduces confusion

Pain Point	Feature	Microcopy / Guidance	Priority	Feasibility	Notes
Slow/unclear payment confirmation	Faster backend processing & real-time updates	“Processing your payment, please wait...”	Medium	Medium	Reduces anxiety during payment
Vague validation/error messages	Specific, descriptive validation messages	“Invalid email address. Please check and try again.”	High	Medium	Guides users to correct inputs

Prioritized Roadmap

Priority	Feature	Impact	Feasibility
High	Upfront total cost and fee display	Critical to build trust and reduce abandonment	Medium
High	Mobile-friendly, large touch targets	Essential for mobile conversion	Medium
High	Persistent, auto-saved form data	Prevents data loss; improves checkout stability	High
High	Clear, real-time validation & promo feedback	Improves discount usability	High
Medium	Faster confirmation loading & status updates	Builds confidence in transaction completion	Medium

Task 5: Low-Fidelity Wireframes & UX Elements

Checkout Page: Large, accessible buttons; clear labels; progress indicator; upfront total cost

Promo Code Input: Prominent placement with instant validation messages.

Order Review: Clean, concise summary focusing on key purchase details.

Flow Diagram: Stepwise checkout showing decision points during the process.

(Attach sketches or wireframes with annotations to your submission.)

Task 6: Refined Layout & Design Notes

Typography: Larger, legible fonts optimized for mobile and desktop.

Buttons: Increased size and spacing; clear labeling (“Proceed to Payment,” “Confirm Order”).

Spacing: Sufficient padding to avoid tapping errors.

Color & Feedback: Use green for success, red for errors; subtle backgrounds to emphasize focus areas.

Hierarchy: Highlight total cost and calls to action.

Task 7: Conversational Checkout Assistant Flow

Chat Flow

- **User:** “I want to apply a promo code.”
- **Assistant:** “Please enter your promo code below.”
- **User:** “SAVE20”
- **Assistant:** “Applying code... Success! 20% discount has been applied.”
- **User:** “How long will delivery take?”
- **Assistant:** “Standard shipping takes 3–5 days. Would you like expedited options?”
- **User:** “Track my order.”
- **Assistant:** “Please provide your order number or email to track your shipment.”

Description

- Start → User inputs query
- Decision node: Is query about promo code?
 - Yes → Ask for promo code → Validate → Confirm success or error message → End
 - No → Query about delivery?
 - Yes → Present options → Take user selection → End
 - No → Query about order tracking?
 - Yes → Prompt order number/email → Display status → End
 - No → Provide help options or fallback response → End