



# <hacker-ramp/>

weforthe

Hack it. Innovate it. Lead it.

**Team Name:** Butterflies

**Team Details:**

Roshni Kumari  
Sakshi Kumari  
Aprajita Kumari  
(NIT Jamshedpur)



# Theme Chosen



The **future** of fashion is not just online, it's intelligent, immersive, and intuitive.

We stand at the intersection of two powerful shifts:

- The rise of **Generative AI**.
- The dominance of **Gen Z consumers**.

This new generation doesn't just shop, they seek discovery, expression, and **confidence**.

They demand **personalization** that understands not just what they click, but who they are.



## Problem Statement

- **The Core Problem:** Today's digital shopping experience forces users to **imagine** how clothes will fit and how separate items will look together, relying solely on **static images** and **manual discovery**. This creates a **significant gap** between online browsing and the confidence of an in-store experience.
- **The Root Cause:** This gap is driven by two critical limitations:
  - **Static & Passive Browsing:** Discovery of products is still based on traditional **grid layouts** and search bars—a functional but **outdated experience** that feels like work, not inspiration.
  - **Lack of True Visualization:** Shoppers cannot see how products truly look on their body or combine into complete outfits, eroding purchase confidence.
- **The Proven Impact:** This experience gap has severe business consequences:
  - **71% of apparel returns** are due to fit and style uncertainty, creating massive logistical costs.
  - Dramatically **lower engagement:** Users spend **90+ minutes** daily on immersive, scroll-based platforms like social media, but **only ~4 minutes** on traditional retail apps.

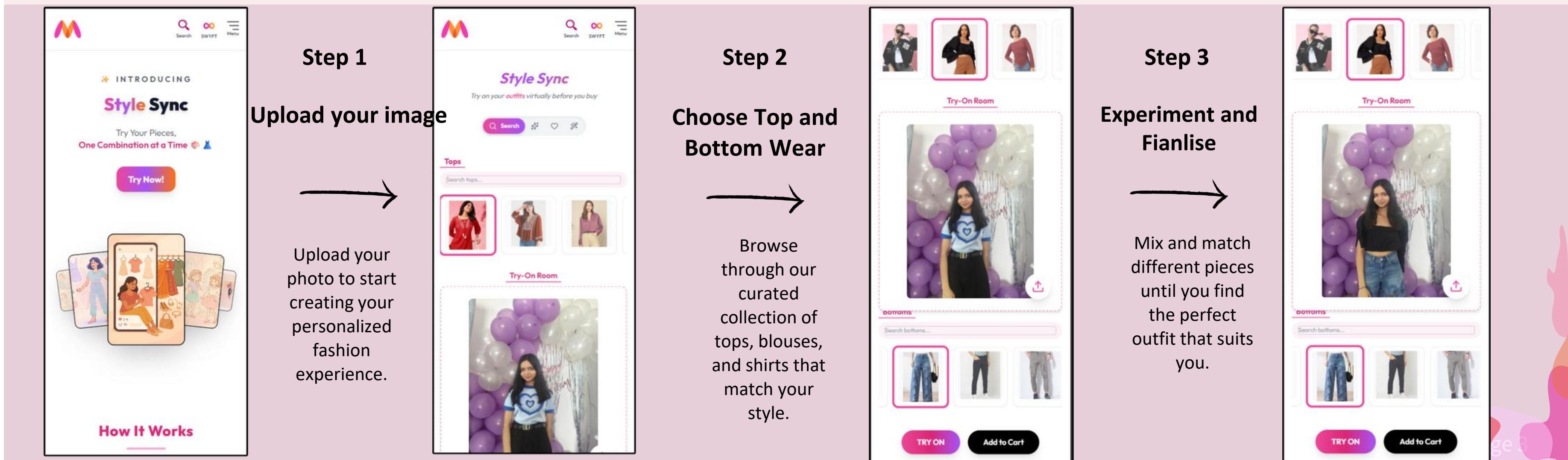


# Proposed Solutions

## Myntra's Virtual Try-On: Style Sync

StyleSync is an AI-powered virtual try-on solution that lets users **visualize outfits** on themselves before purchasing.

- It Uses **DensePose** body mapping to analyze proportions and create precise 3D models from user's photos.
- It processes garments with **U<sup>2</sup>-Net segmentation** to extract textures and patterns for realistic rendering.
- These elements are intelligently blended with the user's body shape using **generative networks**, creating accurate virtual try-ons.
- Each fitting session further enhances the **system's accuracy** through continuous machine learning, delivering progressively improved recommendations.

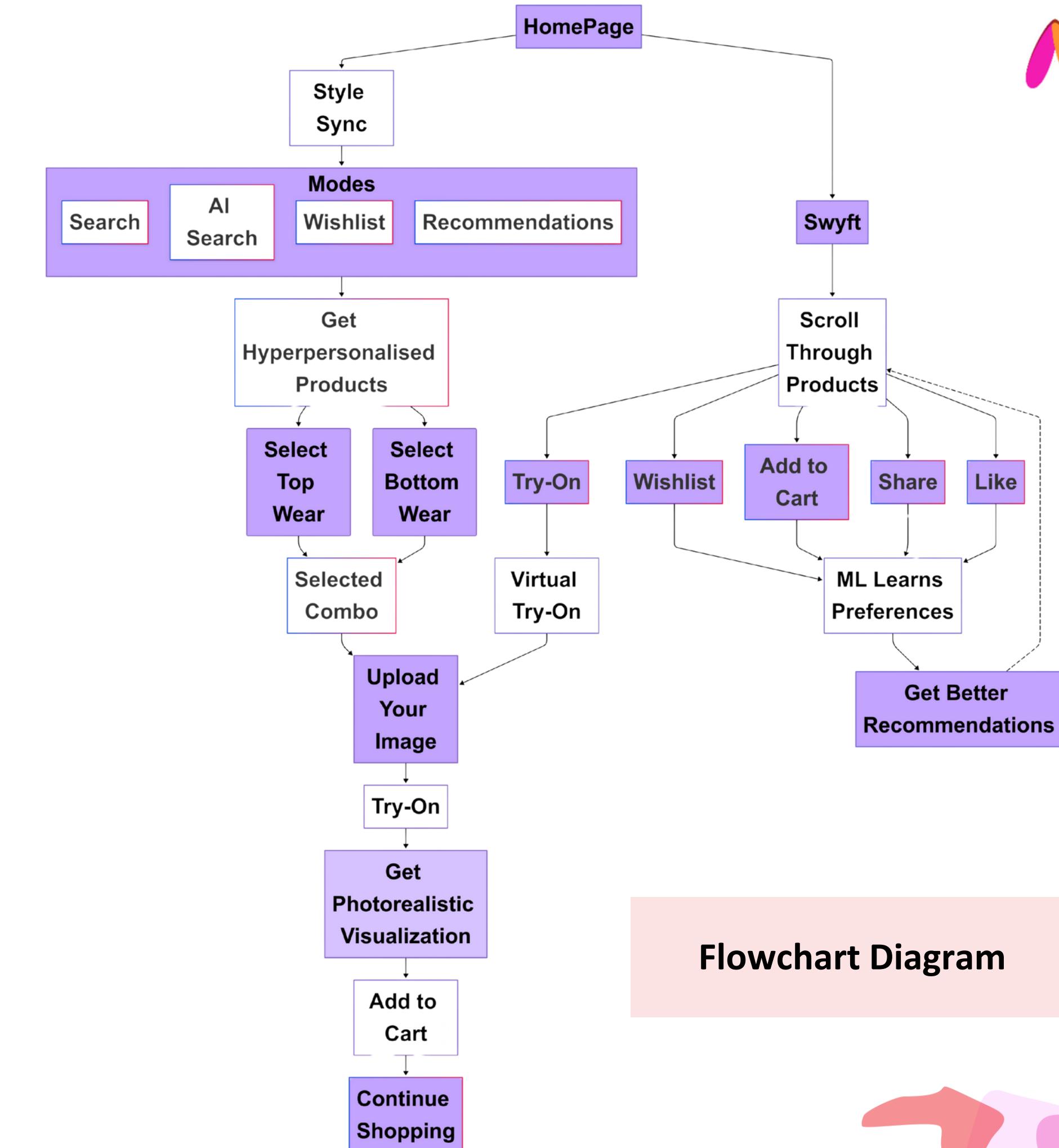
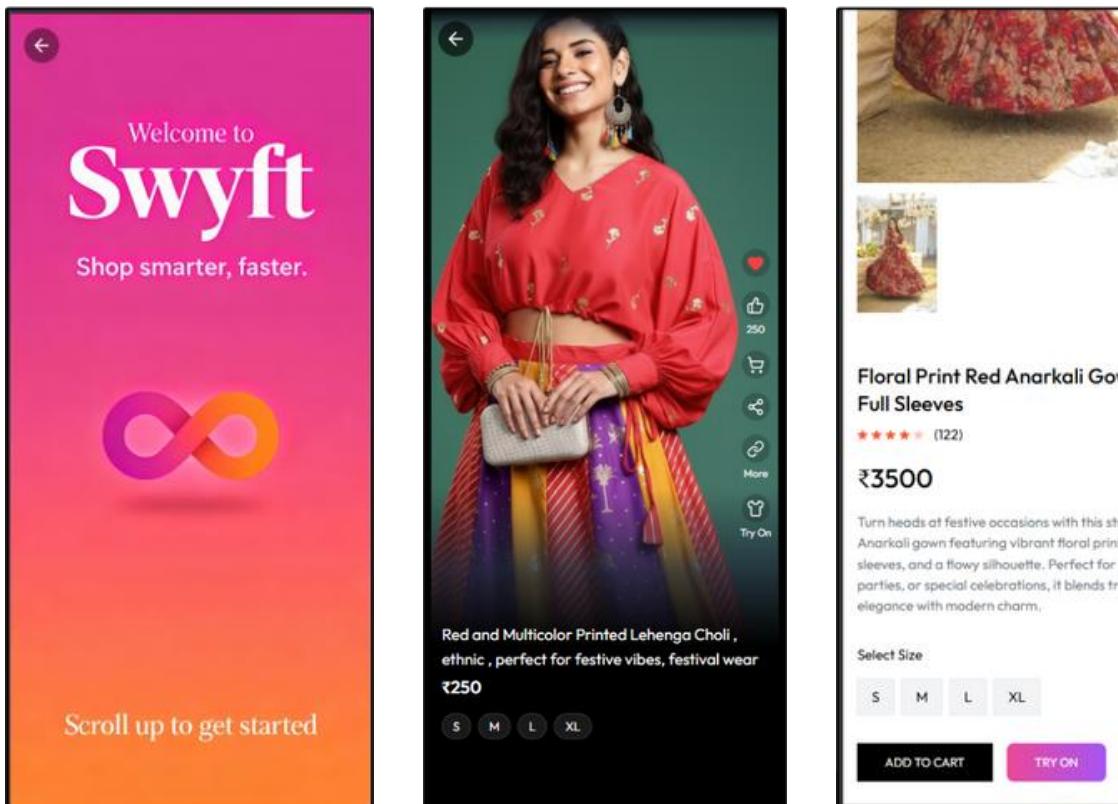


# The Myntra Style Feed: Swyft



Swyft is an **AI powered** recommendation based infinitely **scrollable** style feed inspired by the new paradigm of content discovery

- It uses **neural networks** to build detailed **user** and **product embeddings**, learning style preferences from historical behavior
- These embeddings power **bandit algorithms** that dynamically balance personalized recommendations with **new discoveries** in real-time
- Each swipe and tap instantly refines **recommendations**, creating a continuously adapting session experience



Flowchart Diagram

## Challenges

- Defining what "relevant" truly means for each unique user went far beyond simple categories or trends.
- Building a realistic virtual try-on felt impossible in such a short time
- Designing for a generation that scrolls

## Learnings

- True relevance is a blend of personal taste, real-time context, and subtle style cues---not just data points.
- We focused on creating the feeling of confidence rather than perfect simulation--and it resonated.
- Every micro-interaction---every swipe, pause, or tap---became a critical part of the conversation with the user.

## Tech Stack Used:



Demo Video: <https://youtu.be/VISbZo4rW74?feature=shared>

Github: <https://github.com/aprajita-99/MyntraHackerramp>

# Future View

- **AI Size-Based Fit Engine**
  - Uses a mix of body metrics and garment data to show how each size (S/M/L) truly fits and drapes on your unique body shape — not just a standard model.
  - Cuts returns by 35%+, lifts conversions by 22%
- **Full-Outfit AR Try-On**
  - Lets users try complete looks — tops, bottoms, shoes, and accessories — together in real-time AR, just like a digital fitting room.
  - Boosts average order value by 30%+
- **Proactive AI Stylist**
  - Suggests context-aware daily outfits using real-time data like local weather, your calendar, and past preferences.
  - Increases monthly sessions per user by 4x
- **Taste Graph**
  - Continuously learns your style from every swipe, tap, and pause to build a live preference profile.
  - Delivers 3x more relevant recommendations

# Opportunities for Myntra

- **Revenue & Conversion Growth**
  - Increase conversion rates by up to 40% through virtual try-ons that build shopper confidence.
  - Boost average order value by 27%+ via AI-curated outfit bundles and intelligent cross-selling.
- **Engagement & Retention**
  - Increase session time by 300%+ with Swyft's immersive, swipeable discovery experience.
  - Strengthen customer loyalty: 68% of Gen Z prefer brands that deliver personalized, immersive interactions.
- **Returns & Cost Efficiency**
  - Reduce return rates by up to 64% by resolving fit and style uncertainty before purchase.
  - Significantly lower operational costs linked to reverse logistics, restocking, and resource overhead.
- **Brand Leadership**
  - Reinforce Myntra as India's #1 fashion-tech destination—leading through experience, not just inventory.
  - Capture and retain high-value Gen Z shoppers, a demographic wielding \$360B in spending power.