

#### **Enhancing Cart Completion Rates and Reducing Abandonment at Plume Retail**

A comprehensive case study on customer behaviour to enhance sales by reducing customer-cart abandonment rate



#### -- Business Introduction --

Plume Retail is a dynamic and fast-growing e-commerce company specializing in curated beauty, fashion, and lifestyle products. Since its inception three years ago, Plume has become a favorite among Gen Z and Millennial shoppers due to its personalized recommendations, exclusive product drops, and engaging digital campaigns.

Despite its popularity, the company faces increasing competition in the e-commerce landscape, necessitating innovative strategies to retain customers and boost sales.

#### -- Problem Statement --

Plume Retail faces a critical challenge: only 34% of shoppers who add items to their cart complete their purchases. This high cart abandonment rate is driven by competitive pricing, indecision, and shipping costs. If left unaddressed, this issue threatens to hinder Plume's ability to sustain growth and profitability in an increasingly competitive market.



#### -- Rationale for the Project --



- Revenue Growth: Converting browsing behavior into completed sales can significantly increase revenue.
- Customer Retention: Reducing friction during the purchasing process can enhance customer satisfaction and loyalty.
- Competitive Edge: Leveraging data-driven insights to deliver personalized experiences positions Plume as a leader in customer-centric e-commerce.
- Operational Efficiency: Identifying trends and bottlenecks allows for targeted interventions, reducing wasted resources on ineffective strategies.

## --Aim of the Project--

- Identify reasons why customers abandon their carts
- Shopping frequency of customers
- Best selling/popular product categories
- Look into the relationship between customer attributes and cart completion/Abandonment rates
- Show the number of customers of the business based on demographics like age groups and gender

#### -- Data Description --

The dataset contains information about customer shopping behaviour at Plume:

- Gender and Age Category: Demographic information.
- Purchase Frequency: How often customers make purchases.
- Purchase Categories: Types of products they buy.
- Personalized Recommendation Frequency: How often they encounter or use personalized recommendations.
- Browsing and Product Search Behavior
- Frequency and methods of browsing/searching.
- Cart Behavior: Frequency of adding items to the cart and completing purchases
- Cart Abandonment Factors: Reasons why customers abandon carts

## -- Tech Stack --



#### --Project Workflow--



#### Data Collection and Cleaning

- Gather historical data on cart activity, customer demographics, and purchase behavior.
- Clean and preprocess the data for analysis.



#### Exploratory Data Analysis (EDA)

- Analyze
  abandonment rates
  by demographics,
  product categories,
  and browsing
  behavior.
- Identify patterns and key drivers of cart abandonment.



#### Insights Development

- Extract actionable

insights, such as

demographic segments with high abandonment rates and common barriers to purchase.



#### Dashboard Design

- Develop a solution-oriented dashboard featuring key metrics, demographic insights, and behavioral trends.
- Incorporate interactive filters for real-time analysis.



#### Proposed Interventions

 Design targeted solutions, such as personalized incentives, enhanced recommendations, and pricing strategies.

## Implementation

and Monitoring

- Implement proposed strategies and track their effectiveness using the dashboard.
- Adjust interventions based on real-time data.

### -- Key Insights --

- Gen Z and Millennials are the most active shoppers but also show the highest rates of cart abandonment.
- Female customers, though the largest demographic, exhibit similar behavior to others in terms of incomplete purchases.
- "Beauty and Personal Care" and "Clothing and Fashion" lead in popularity but have disproportionately high abandonment rates.
- Top reasons include finding better prices elsewhere (45%) and changing their mind (42%).
- High shipping costs account for 13%, affecting smaller order sizes.
- While personalized recommendations are appreciated, they are not consistently utilized, highlighting potential gaps in relevance or visibility.

# Any Questions?