

# UNRAVEL 6.0

## 1. Introduction / Background

ShopEase is a mid-sized online fashion marketplace in India, selling apparel, accessories, and footwear. Over the past two years, the company has seen good growth, but recently, management has observed **subtle signs of operational and sales challenges**.

Customer complaints are rising, some product categories are performing inconsistently, and marketing spend seems less effective than before.

The leadership wants a **data-backed analysis** to identify the **core problems and recommend actionable solutions**.

## 2. Dataset Provided

You will receive the file:

**shop\_ease\_fashion\_dataset.csv** (10,000 rows)

### Columns:

Column	Description
order_id	Unique transaction ID
order_date	Date of order (YYYY-MM-DD)
customer_id	Unique customer identifier
age_group	Customer age group (18-24, 25-34, 35-44, 45+)
gender	Customer gender
city_tier	Customer city tier (Tier-1, Tier-2, Tier-3)
customer_tenure_months	Months since customer first joined
product_category	Main product category (Casual, Formal, Ethnic, Activewear, Loungewear, Accessories)
sub_category	Specific sub-category (e.g., Tops, Kurtas, Tracks)
brand	Brand name
quantity	Number of units purchased
order_value	Transaction value after discount
discount_percent	Discount applied (%)

Column	Description
payment_mode	Payment method (Card, UPI, COD, NetBanking, Wallet)
acquisition_channel	Marketing channel (Instagram, Google, Influencer, Email, Referral)
channel_cost	Approximate marketing cost per order from channel
delivery_time_days	Number of days for delivery
return_status	Returned / Not Returned
cancellation_reason	If cancelled, reason for cancellation
refund_amount	Refund given (if any)
complaint_flag	1 if customer complaint received, 0 otherwise

**Note:** You are expected to **explore the dataset, find hidden patterns, and identify the key business problems.**

### 3. Problem Statement

You are the **Business Analyst** for ShopEase. Using the provided dataset, your task is to:

1. **Identify the most critical problem(s)** impacting business performance.
  - The main problem is **not explicitly stated**; you must discover it using data.
2. **Conduct a root-cause analysis**
  - Investigate which customer segments, product categories, marketing channels, payment modes, or seasonal patterns contribute to the problem.
3. **Provide actionable business recommendations**
  - Solutions should be practical, feasible, and **data-backed**.
  - Where possible, quantify the expected impact of your recommendations (e.g., revenue uplift, cost savings, improved AOV).

### 4. Deliverables

Each team should submit:

1. **A written report** (max 5 pages) including:
  - Problem identification
  - Root-cause analysis
  - Recommendations with justification
2. **Supporting visualizations / analysis**
  - Charts, graphs, tables that strengthen your analysis
3. **Optional Excel / Power BI dashboard**

- Any interactive dashboards or calculations to support your conclusions

## 5. Evaluation Criteria

Criteria	Weight
Problem Identification	30%
Depth of Analysis & Insights	25%
Quality & Feasibility of Recommendations	25%
Presentation / Report Quality	10%
Use of Data & Visualization	10%

## 6. Notes & Guidelines

- Teams can use any tools: **Excel, Python, R, Power BI, Tableau, etc.**
- Creativity in analysis is encouraged & multiple correct approaches exist.
- Focus on **clarity, logic, and actionable insights**, not just numbers.