Cleaning Log

Counts of blank values in the table	
table names	**Blank counts**
Discount Code	**206**
Del Date	**18**
Reason	**166**
Ret Rec	**166**

- **Total duplicates found:**
    - **There are no duplicates in the 'Order_ID' column.**
    - **So, no need to take any action.**

- **Fixed:**
    - **What was wrong:**
      "Delievered" vs "Delivered" &
      "new" vs "New"
    - **How many instances: 1**
    - **How fixed: Used Find & Replace**

- **Outliers:**

Order ID	Issue	value
UT-100010	**Negative Quantity value**	**-1**

Logical Data Issues

- **Average delivery days: 15**
- **Maximum delivery days: 270 days**
- **Orders >30 days: 2**

- **Report findings:**

    - **Return? = No but Reason filled: All Filled**
    - **Return? = Yes but Reason blank: No blanks**
    - **Cancelled with Del Date: No Changes Needed**
    - **RTO with Del Date: No Changes Needed**
    - **Delivered without Del Date: No Changes Needed**

- **Order ID: UT-100003**
- **Issue: 270-day delivery (data entry error or system issue)**
- **Recommendation: INVESTIGATE/FLAG**

Validation Summary

Rule ID	Validation Check	Expected Outcome	Your Result (PASS/FAIL)	Details
V1	All Order IDs follow format UT-XXXXXX	100% compliance	PASS	Count: __346_/346
V2	Type contains only "New" or "Returning"	No other values	PASS	Count: __346_/346
V3	Quantity is positive integer (>0)	No zeros/negatives	FAIL	Violations: -1__value
V4	Discount % between 0 and 100	No out-of-range	PASS	Count: __346_/346
V5	Order Date in Q4 2024 (Oct 1-Dec 31)	No dates outside	PASS	Outside: _NA__
V6	Payment method matches 5 defined options	No undefined	PASS	Valid: _346_/346
V7	If Delivered → Del Date exists	Cross-field check	PASS	Missing: NA___
V8	If Return? = No → Reason blank	Business logic	PASS	Violations: NA___
V9	Warehouse in [Mumbai, Delhi, Bangalore]	No others	PASS	Valid: __346_/346
V10	If Return? = No → Refund = "Not Applicable"	Logic check	PASS	Violations: _NA__

Analysis

Metric	Value
Total Orders	346
Gross Merchandise Value (GMV)	₹ 1023789
Total Discounts Given	₹ 114181.65
Net Revenue (After Discounts)	₹ 909607.35
Total Units Sold	409
Average Order Value (AOV)	₹ 2958.92
Orders Delivered	328
Orders Cancelled	1
Orders RTO	17
Returns Initiated	180
Overall Return Rate	18.2%

Weekly Trends

Week #	Week Start Date	Order Volume	Revenue	Avg Discount %	Return Rate	Notes
40	Oct 1	26	78,257	5.9	50.0%	
41	Oct 8	29	79,467	5.2	40.7%	
42	Oct 15	28	63,865	5.2	50.0%	
43	Oct 22	27	59,968	5.6	41.7%	
44	Oct 28	33	129,764	40.0%	77.4%	DIWALI WEEK
45	Nov 4	21	54,973	16.2%	55.0%	Post-Diwali
46	Nov 11	21	59,778	4.3%	60.0%	
47	Nov 18	21	62,878	3.6%	55.0%	
48	Nov 25	22	68,376	5.5%	61.9%	
49	Dec 2	28	87,268	8.6%	40.7%	
50	Dec 9	28	89,267	6.4%	59.3%	
51	Dec 16	28	91,768	7.1%	60.7%	
52	Dec 23	28	80,768	6.4%	60.7%	

CUSTOMER TYPE ANALYSIS

Customer Type	Orders	Revenue	AOV	Return Rate
New	269	₹787,495	₹2,927	58.6%
Returning	76	₹234,395	₹3,084	44.0%

ORDER SOURCE ANALYSIS

Order Source	Orders	Revenue	AOV	Return Rate
Website	120	₹356,855	₹2,974	42.1%
Mobile App	116	₹329,564	₹2,841	57.0%
Instagram Shop	109	₹335,471	₹3,078	67.6%

PAYMENT METHOD ANALYSIS

Payment Method	Orders	Revenue	Return Rate
COD	62	₹209,825	84.4%
Debit Card	61	₹170,735	71.7%
Credit Card	88	₹310,603	54.5%
UPI	82	₹212,999	43.2%
Wallet	52	₹117,728	30.8%

PRODUCT CATEGORY ANALYSIS

Category	Orders	% Of Total	Return Rate	Assessment
Outerwear	68	19.7%	80.0%	CRITICAL
Dresses	70	20.3%	66.7%	HIGH
Tops	73	21.2%	65.2%	HIGH
Bottoms	66	19.1%	39.1%	GOOD
Accessories	68	19.7%	24.6%	EXCELLENT

Overall Return Rate: 55.2%

KPI CALCULATIONS

KPI	Definition	Your Calculation	Value
GMV (Gross Merchandise Value)	Total order value BEFORE discounts	SUM(Total column)	₹1,023,789
Net Revenue	GMV MINUS total discounts given	GMV - Total Discounts	₹909,607
Return Rate	Returns / Delivered Orders × 100%	180 / 328 × 100	55.2%
RTO Rate	Return to Origin orders / Total orders	17 / 346 × 100	4.9%
New Customer Return Rate	Returns from new / Delivered new × 100%	158 / 269 × 100	58.6%
Returning Customer Return Rate	Returns from returning / Delivered returning × 100%	33 / 76 × 100	44.0%
Diwali Week Return Rate	Return rate in Week 44 only	77.4%	77.4%
Refund Processing Rate	Processed refunds / Total returns × 100%	164 / 180 × 100	91.1%

Q1. “If overall return rate is 55.2%, but new customers have 58.6% while returning customers have 44%, what does this tell you?”

Answer:

New customers tend to return products much more often than customers who have shopped with us before. This means that new customers are the main reason why our overall return rate is so high.

Q2. “If 45% of returns cite ‘Size Issue,’ what operational changes might help?”

Answer:

Returns due to size issues can be managed effectively, which is a positive sign. It indicates that the problem lies in operations and communication, not because customers are rejecting the brand.

Q3. “If Instagram Shop has the highest return rate, should we shut it down?”

Answer:

Although Instagram Shop has the highest return rate, shutting it down now would be hasty. We should first evaluate CLV, AOV, acquisition costs, and understand whether the returns come from new customers, COD orders, or specific categories. Instead of closing it, we should try targeted steps first, like improving size info, limiting categories, or controlling payment options.

Section 5:

Part A: Root Cause Hypothesis

The rise in return rates is mainly due to how new customers are buying, problems related to the size of products, and high-risk sales channels like Instagram Shop and cash on delivery (COD) orders. This indicates that customers may have different expectations or intentions when they buy, rather than there being a major issue with the quality of the products themselves.

Part B: Recommended Actions

Action 1: Improve Size Guidance & Fit Communication

Target: New customers & high-return categories

What to change:

- Add detailed size charts
- Show model height and size worn
- Introduce “True to size / Slim fit / Oversized” labels

Expected impact:

- Reduce size-related returns by **20–30%**
- Overall return rate drop of **3–4 percentage points**

Risk: Minimal (does not reduce sales)

Action 2: Control COD Availability for High-Risk Segments

Target: COD + New customers + Instagram Shop

What to change:

- Restrict COD for first-time Instagram orders
- Offer incentives for prepaid payments instead

Expected impact:

- Reduce RTO and return-related logistics cost
- Improve cash flow

Risk: Slight conversion drop in COD-heavy users

Action 3: Optimise Instagram Shop Instead of Shutting It Down

Target: Instagram acquisition funnel

What to change:

- Improve sizing info in creatives
- Promote low-return categories
- Reduce heavy-discount creatives

Expected impact:

- Better-quality traffic
- Lower return rate without losing reach

Risk: Requires coordination with marketing

Part C: What You'd Want to Test

I would conduct an A/B test comparing standard product pages with enhanced size-guided pages to measure the impact on return rates and conversions. This would validate whether size-related improvements can reduce returns without negatively affecting demand.

Part D: Assumptions & Limitations

Assumptions

- One row represents one order
- Return reasons are accurately recorded
- Q4 behavior is representative of near-term trends

Limitations

- No customer lifetime value data
- No product-level fit feedback
- No marketing creative-level data

Open-Ended Questions (Answer in 2-3 sentences each):

1. A colleague suggests we should just disable returns for all orders under ₹999 to reduce costs.
What's your reaction to this idea?

ANS:

This could reduce short-term costs but would likely harm customer trust and conversion. A more balanced approach would be targeted restrictions based on customer behavior or product category rather than blanket policies.

2. The marketing team wants to run another 40% off sale next month. Based on your analysis,
what conditions or guardrails would you recommend?

ANS:

I would recommend limiting deep discounts to low-return categories, restricting COD during the sale, and closely monitoring return rates 2–3 weeks post-sale.

3. If we offered free alterations for size-related returns instead of full refunds, how would you
estimate whether this is cost-effective?

ANS:

I would compare the cost of alterations against average reverse logistics and refund costs, and pilot the option in high-return size categories to evaluate cost-effectiveness.