

E-Commerce Customer Journey and Conversion Analysis

1. Dashboard Sections

The dashboard consists of **five main sections**, each addressing a specific analytical goal related to customer journey, product performance, and conversion efficiency.

1.1 Overview Dashboard

Goal:

Provide a summary of total activity, key metrics, and overall e-commerce performance.

Key Insights:

- Total product views, add-to-cart actions, and purchases
- Conversion rate and engagement trends over time
- Distribution of user actions across the platform

Key Visuals:

- KPI Cards: Total Views, AddToCart, Purchases, Conversion Rate
- Line Chart: Event trends over time
- Donut Chart: Event type distribution
- Table: Top 10 performing products

1.2 Conversion Funnel Analysis

Goal:

Analyze the complete customer journey from viewing products to completing purchases and identify drop-off points.

Key Insights:

- Drop-offs between funnel stages (View → AddToCart → Transaction)
- Conversion and add-to-cart efficiency
- Funnel performance by category

Key Visuals:

- Funnel Chart: Customer journey stages

- Drop-off Analysis Table: Conversion % and drop-off %
- Bar Chart: Category-wise funnel comparison
- Gauge Chart: Conversion rate vs. target

1.3 Product & Category Performance

Goal:

Evaluate the performance of products and categories to identify sales drivers and improvement areas.

Key Insights:

- Top-selling and most-viewed products
- High-performing and low-performing categories
- Category contribution to total sales and engagement

Key Visuals:

- Bar Chart: Top 10 purchased products
- Tree Map: Category and subcategory distribution
- Matrix Table: Product vs. Views, Purchases, and Conversion %

1.4 Customer Behaviour Insights

Goal:

Understand user behaviour patterns and engagement throughout the platform.

Key Insights:

- User activity trends and repeat customers
- Event type preference (view, add, transaction)
- Frequency of visits per user

Key Visuals:

- Line Chart: User activity over time
- Donut Chart: Event type by user
- Histogram: Visit frequency
- Table: Repeat and active users

1.5 Availability & Inventory Impact

Goal:

Assess how product availability affects user engagement and sales performance.

Key Insights:

- Conversion rate comparison (Available vs Unavailable items)
- Effect of stock levels on customer interaction
- Relationship between availability and funnel performance

Key Visuals:

- Clustered Column Chart: Available vs Unavailable product performance
- KPI Cards: % Available Items, Conversion (Available vs Unavailable)
- Table: Item ID, Availability, Views, Purchases

2. Data Requirements

2.1 Overview Dashboard

- event
- timestamp
- visitorid
- itemid
- categoryid
- parentid

2.2 Conversion Funnel Analysis

- event
- itemid
- visitorid
- timestamp
- categoryid
- available

2.3 Product & Category Performance

- event
- itemid
- categoryid
- parentid

- available

2.4 Customer Behaviour Insights

- visitorid
- event
- timestamp
- itemid

2.5 Availability & Inventory Impact

- available
- itemid
- event
- categoryid

3. Filters / Slicers

- Date Range
- Category
- Event Type
- Availability
- Item ID / Product
- User / Visitor ID

4. Visuals / Charts

4.1 Overview Dashboard

- KPI Cards
- Line Chart (Event trend over time)
- Donut Chart (Event type distribution)
- Table (Top 10 products)

4.2 Conversion Funnel Analysis

- Funnel Chart (View → Add to Cart → Transaction)
- KPI Cards (Views, Adds, Purchases, Conversion Rate)
- Table (Drop-off analysis)
- Bar Chart (Category-wise funnel comparison)

- Gauge Chart (Conversion vs Target)

4.3 Product & Category Performance

- Bar Chart (Top purchased products)
- Tree Map (Category performance)
- Matrix / Table (Product metrics)
- KPI Cards (Top Category / Product)

4.4 Customer Behaviour Insights

- Line Chart (User activity over time)
- Donut Chart (Event distribution by user)
- Histogram (Visit frequency)
- Table (Repeat / Active users)

4.5 Availability & Inventory Impact

- Clustered Column Chart (Available vs Unavailable items)
- KPI Cards (% Available, Conversion Rate)
- Table (Item ID, Availability, Views, Purchases)

5. Interactivity

5.1 Drill-downs:

- From Category → Subcategory → Product level (using category tree)
- From overall KPIs to detailed product or user-level data

5.2 Cross-filtering:

- Clicking on any chart (e.g., category bar, funnel stage) filters all related visuals on the page

7. Calculations / Measures

◆ Core Measures

- Total Views = `CALCULATE (COUNTROWS (events), events[event] = "view")`
- Total AddToCart = `CALCULATE (COUNTROWS (events), events[event] = "addtocart")`

- Total Purchases = CALCULATE (COUNTROWS (events), events[event] = "transaction")
- Active Users = DISTINCTCOUNT (events[visitorid])
- ◆ **Conversion Metrics**
 - Add-to-Cart Rate (%) = DIVIDE ([Total AddToCart], [Total Views], 0)
 - Purchase Conversion Rate (%) = DIVIDE ([Total Purchases], [Total Views], 0)
 - Cart-to-Purchase Rate (%) = DIVIDE ([Total Purchases], [Total AddToCart], 0)
- ◆ **Drop-off Metrics**
 - Drop-off View → Cart (%) = 1 - [Add-to-Cart Rate (%)]
 - Drop-off Cart → Purchase (%) = 1 - [Cart-to-Purchase Rate (%)]

Export / Reporting Needs

- Export Options: PDF, Excel, Power BI Service shareable link
- Scheduled Refresh: Daily at 6 AM
- Distribution: Internal analytics team, management dashboard

Notes / Special Instructions

- Null or invalid data handled.
- Ensure all visuals maintain consistency in colour and format across pages