# **📊 KPI → Dataset Mapping**

## **1. Traffic & Engagement**

* **Website Traffic** → website\_sessions.website\_session\_id (count).
* **Sessions** → same as above.
* **Daily/Hourly Traffic** → group website\_sessions.created\_at by day/hour.
* **Top Pages, Entry Pages** → website\_pageviews.pageview\_url; entry page = first pageview per session.
* **Bounce Rate / Bounce Rates** → sessions with only 1 pageview ÷ total sessions.
* **Page Load Time** → ❌ not available in schema.

## **2. Marketing Performance**

* **Click-through Rate (CTR)** → ❌ requires impressions data; with current schema, only clicks (sessions) are visible.

* **Cost per Acquisition (CPA)** → ❌ needs marketing spend (not in schema).
* **Customer Acquisition Cost (CAC)** → ❌ same as CPA, per customer.
* **RPS (Revenue per Session)** → SUM(orders.price\_usd) ÷ COUNT(website\_sessions).
* **RPC (Revenue per Click)** → Net Revenue / Clicks (Has UTM)
* **Orders by Device** and campaign→ orders joined with website\_sessions.utm\_campaign and device\_type.
* **Channel Diversification** → count distinct utm\_source contributing to orders/revenue.
* **Clickthrough from /products** → sessions with pageview /products that continue to deeper pages (/cart, /checkout).

## **3. Conversion & Funnel**

* **Conversion Rate (CVR)** → COUNT(orders) ÷ COUNT(sessions).
* **Funnel Conversion %** → website\_pageviews.pageview\_url → measure drop-offs (e.g., /products → /cart → /checkout → order).
* **Cart Abandonment Rate** → ❌ No cart or checkout events tracked in tables
* **A/B Test Results / Incremental Test Gains** → CVR, RPC, Total Revenue for all entry pages

## **4. Orders & Revenue**

* **Orders** → COUNT(orders.order\_id).
* **Revenue** → SUM(orders.price\_usd).
* **Net Revenue** → SUM(orders.price\_usd) – SUM(order\_item\_refunds.refund\_amount\_usd).
* **Gross Merchandise Value (GMV)** → SUM(order\_items.price\_usd).
* **Average Order Value (AOV)** → SUM(price\_usd) ÷ COUNT(order\_id).
* **Gross Margin** → (SUM(price\_usd) – SUM(cogs\_usd)) ÷ SUM(price\_usd).
* **Refund Rate** → COUNT(order\_item\_refunds) ÷ COUNT(order\_items).
* **Refund Rates by Product** → group refunds by order\_items.product\_id.
* **Orders, Revenue, Margin by Product** → join orders/order\_items with products.
* **Product Portfolio Impact** → analyze contribution of each product (SUM(price\_usd) grouped by product).

## **5. Customer & Loyalty**

* **New vs Repeat Customers (sessions, orders, revenue)** →  
  + New vs repeat → website\_sessions.is\_repeat\_session (0=new,1=repeat).
  + Segment COUNT(orders), SUM(price\_usd) accordingly.
* **Repeat Purchase Rate (RPR)** → distinct users with ≥2 orders ÷ total distinct users.
* **Customer Lifetime Value (CLV)** → approx: AOV × Avg(Orders per Customer) × Gross Margin.
* **Loyalty (Days Between Visits)** → difference in created\_at between consecutive sessions per user\_id.

## **6. Growth & Efficiency**

* **Growth over 3 Years (CAGR)** → trend of orders and revenue grouped by year (YEAR(created\_at)).
* **Efficiency Gains** → measure changes in Gross Margin or Revenue per Session over time.

## **7. Experience & Surveys**

* **Net Promoter Score (NPS)** → ❌ not in schema (survey data required).

# **✅ Summary**

* **Fully Calculable (with your schema):**  
   Website traffic, sessions, daily/hourly traffic, entry pages, bounce rate, orders, revenue, net revenue, GMV, AOV, gross margin, refund rate, refund by product, orders/revenue/margin by product, funnel conversion %, cart abandonment, repeat vs new customers, RPR, CLV (approx), loyalty days between visits, RPS, channel diversification, clickthrough from /products, growth over years, efficiency gains, product portfolio impact.
* **Partially (need external data):** CPA, CAC, CTR, RPC, A/B Test Results, Incremental Gains.
* **Not in Schema:** Page Load Time, NPS.