| **Metric Name** | **Definition / Formula** | **Level** | **Remarks** |
| --- | --- | --- | --- |
| **Total Customers** | =COUNTA(cust\_id) | Customer | Based on customer master list |
| **Active Customers** | Unique customers who made at least one purchase | Customer | Use =COUNTUNIQUE(cust\_id) from sales |
| **Repeat Customers** | Customers with >1 purchase | Customer | Use pivot/countif or frequency filtering |
| **Average Age** | =AVERAGE(age) | Customer | From demographic data |
| **Gender Ratio** | Ratio of Males:Females:Other | Customer | Use COUNTIF or pivot summary |
| **Average Income** | =AVERAGE(annual\_income\_usd) | Customer |  |
| **Average Monthly Spend** | =AVERAGE(avg\_spending\_per\_month) | Customer |  |
| **Total Orders** | =COUNT(purchased\_datetime) | Sales | Filter only non-null purchases |
| **Total Revenue** | =SUM(quantity \* unit\_price) | Sales | Use calculated field in pivot |
| **Units Sold** | =SUM(quantity) | Sales |  |
| **Average Order Value (AOV)** | =Total Revenue / Total Orders | Sales |  |
| **Cart Abandonment Rate** | =1 - (Purchases / Cart Adds) | Sales Funnel | Filter nulls and calculate % |
| **Conversion Rate** | =Purchases / Views | Sales Funnel | Also track Cart Adds / Views |
| **CTR (Click-Through Rate)** | =Clicks / Impressions | Channel Marketing | Measure of ad engagement effectiveness |
| **CPA (Cost Per Acquisition)** | =Total Cost / Purchases | Channel Marketing | Cost efficiency |
| **CPC (Cost Per Click)** | =Total Cost / Clicks | Channel Marketing |  |
| **Ad Reach** | Unique customers with impressions or clicks | Channel | Filter by cust\_id in each channel dataset |
| **Total Ad Spend** | =SUM(cost) | Channel | Per channel |
| **Ad Spend ROI** | =(Revenue from Channel / Cost of Channel) | Channel | Only valid if sales are attributed to the channel |
| **Multi-Channel Exposure** | Customers reached via more than 1 channel | Channel-Customer | Use count of channel mentions per cust\_id > 1 |
| **Customer Lifetime Value (CLV)** | =Avg Order Value \* Purchase Frequency \* Retention Time | Customer | Estimate over 1–2 years |
| **Funnel Drop-off %** | =(Stage1 - Stage2) / Stage1 | Funnel | Applies between viewed → cart, cart → purchase |
| **Top Product** | =MODE(item) or based on highest revenue | Product |  |
| **Top Channel** | Highest revenue / conversions | Channel |  |
| **Channel Attribution** | Percentage of total conversions attributed to each channel | Channel-Customer | Requires merging marketing & sales data |
| **Monthly Revenue** | Group sales by MONTH(purchased\_datetime) | Time Series | Use pivot with datetime grouping |
| **Quarterly Growth %** | =(Qn - Qn-1) / Qn-1 | Time Series |  |
| **High-Value Customer** | Customers with >$X revenue or Top 10% by spend | Customer | Use percentile or RFM classification |
| **Segment Classification** | Based on demographics: Age, Gender, Income | Customer Segment | Helps in targeted marketing |
| **Sales During Promo** | Revenue where year(purchased\_date) = promo year | Sales | Compare with non-promo year |
| **Sales Without Promo** | Revenue where year = year before promotions | Sales |  |
| **New vs Returning Customers** | Compare first purchase date vs repeat | Customer | Helps measure loyalty |