**KPI Documentation: Customer Participation Rate in Group Deals**

**KPI Name: Customer Participation Rate**

**Definition:**

The **Customer Participation Rate** measures the percentage of unique users who participate in group deals (by adding items to group carts) compared to the total number of users in the system. It provides insights into customer engagement and the appeal of group deals as a business strategy.

**Formula:**

Customer Participation Rate (%)=Distinct Users in Group CartsTotal Users×100\text{Customer Participation Rate (\%)} = \frac{\text{Distinct Users in Group Carts}}{\text{Total Users}} \times 100

**SQL Query:**

The following SQL query calculates the total number of users, the number of unique users participating in group deals, and the participation rate as a percentage:

SELECT

(SELECT COUNT(\*) FROM public.users) AS total\_users,

(SELECT COUNT(DISTINCT user\_id) FROM public.groups\_carts) AS distinct\_users\_in\_cart,

ROUND(

(SELECT COUNT(DISTINCT user\_id) FROM public.groups\_carts)::decimal /

(SELECT COUNT(\*) FROM public.users) \* 100, 2

) AS participation\_rate

;

**Query Explanation:**

1. **total\_users**:
   * Subquery: (SELECT COUNT(\*) FROM public.users)
   * Counts the total number of users in the users table.
2. **distinct\_users\_in\_cart**:
   * Subquery: (SELECT COUNT(DISTINCT user\_id) FROM public.groups\_carts)
   * Counts the number of unique users who have added items to group carts in the groups\_carts table, representing potential participants in group deals.
3. **participation\_rate**:
   * Formula: (Distinct Users in Group Carts)÷(Total Users)×100\text{(Distinct Users in Group Carts)} \div \text{(Total Users)} \times 100
   * Calculates the percentage of users participating in group deals.
   * The ROUND function ensures the percentage is rounded to 2 decimal places for readability.

**Sample Output:**

| **total\_users** | **distinct\_users\_in\_cart** | **participation\_rate** |
| --- | --- | --- |
| 1000 | 250 | 25.00 |

**Importance:**

1. **Measures Engagement**:
   * Indicates how many users are interested in and actively participating in group deals.
2. **Informs Strategy**:
   * A high participation rate suggests that group deals are effectively engaging customers.
   * A low rate could highlight the need for better marketing or adjustments to the group deal structure.
3. **Supports Business Decisions**:
   * Helps stakeholders understand customer behavior and refine group deal offerings to boost engagement.

**Assumptions:**

1. All active users are stored in the users table.
2. Participation in group deals is represented by adding items to group carts in the groups\_carts table.
3. No filters are applied (e.g., by time, location) unless explicitly stated.

**Future Enhancements:**

* Segment the participation rate by demographics, deal type, or time period.
* Combine with other KPIs like **Average Revenue per Group Deal** to gain deeper insights.
* Visualize trends over time to monitor engagement growth.

This documentation explains how the **Customer Participation Rate** is calculated, its importance, and how it contributes to evaluating the success of group deals.