

Measure Definitions – PayPal BI Project

Step 3 – Business Intelligence Measures

Measure Definitions:

Measure Name	Definition	Formula / Logic	Aggregation
Total Transactions	Total number of transactions	COUNT(transaction_id)	COUNT
Total Transaction Amount	Total value of transactions	SUM(transaction_amount)	SUM
Average Transaction Amount	Average value per transaction	AVG(transaction_amount)	AVG
Total Fees Collected	Total PayPal fees	SUM(transaction_fee)	SUM
Fraud Rate	Percentage of fraudulent transactions	$\frac{\text{SUM(fraud_flag)}}{\text{COUNT(transaction_id)}}$	RATIO
Transaction Success Rate	Percentage of successful transactions	$\frac{\text{COUNT(success)}}{\text{COUNT(total)}}$	RATIO
Transactions by Customer Type	Number of transactions by customer type	COUNT(transaction_id) GROUP BY customer_type	COUNT
Transactions by Payment Method	Volume by payment method	COUNT(transaction_id) GROUP BY payment_method	COUNT

Time Intelligence Measures

Year-over-Year (YoY) Growth:

Measures the percentage change in total transaction amount compared to the previous year.

Formula:

$$\frac{(\text{Total Amount This Year} - \text{Total Amount Last Year})}{\text{Total Amount Last Year}}$$

Month-over-Month (MoM) Growth:

Measures the percentage change in total transaction amount compared to the previous month.

Formula:

$$\frac{(\text{Total Amount This Month} - \text{Total Amount Last Month})}{\text{Total Amount Last Month}}$$

Why these measures

The defined measures provide insights into transaction volume, revenue generation, customer behavior, payment performance, and fraud detection. Time-based measures such as YoY and MoM growth allow management to evaluate business trends and performance evolution over time.