Following KPIs are calculated on a tumbling window of one minute on orders across the globe on a per-country-basis and time-country-basis.

1. **Total volume of sales:**

The total volume of sales is the sum of the transaction value of all orders in the given time window. The total transaction value of a specific order will be calculated as follows:

∑(quantity∗unitprice)

The total volume of sales in a time interval can be calculated as the summation of the transaction values of all the orders in that time interval. Also, the sales data stream contains a few returns. In the case of returns, the transaction amount needs to be subtracted. So, the equation for the total volume of sales, in this case, will be calculated as follows:

∑Order(quantity∗unitprice) − ∑Return(quantity∗unitprice)

2. **OPM (orders per minute)**

Orders per minute (OPM) is another important metric for e-commerce companies. It is a direct indicator of the success of the company. As the name suggests, it is the total number of orders received in a minute.

3. **Rate of return**

No business likes to see a customer returning their items. Returns are costly because they need to be processed again and have adverse effects on revenue. The rate of return indicates customer satisfaction for the company. The more satisfied the customer is, the lower the rate of return will be. The rate of return is calculated against the total number of invoices using the following equation:

(∑Returns) / (∑Returns+ ∑Orders)

4. **Average transaction size:**

The average transaction size helps in measuring the amount of money spent on average for each transaction. Evaluating this KPI over a year is a good indicator of when the customers are more likely to spend money, which enables the company to adapt their advertising accordingly. This can be calculated using the following equation:

TotalSalesVolume / (∑Returns+ ∑Orders)