**Milestone 2**

**Sales & Revenue KPIs**

1. **Total Revenue**  
   → Sum of price + freight\_value for *delivered* orders.
2. **Expected Revenue**  
   → Sum of price + freight\_value for *approved* orders.
3. **Net Profit**  
   → price - freight\_value for delivered orders.
4. **Gross Margin %**  
   → (Net Profit ÷ Total Revenue) × 100
5. **Average Order Value (AOV)**  
   → Total Revenue ÷ Number of Delivered Orders
6. **Revenue by Product Category**  
   → Helps find the most profitable categories.
7. **Revenue per Seller**  
   → Seller-level performance.
8. **Revenue per Customer**  
   → Identifies high-value customers.
9. **% Orders with Freight > Product Price**  
   → Signals cost/pricing issues.
10. **Monthly Revenue Forecast**  
    → Trend-based sales prediction (Bonus Task).

**Customer KPIs**

1. **Number of Unique Customers**
2. **Returning Customers**  
   → Count of customers with more than one purchase.
3. **Customer Retention Rate** *(if time range allows)*
4. **Customer Churn Rate** *(if time range allows)*
5. **Customer Lifetime Value (CLV)**  
   → Revenue per customer × avg retention time
6. **Top Customer Locations**  
   → Based on customer\_state or customer\_city.

**Review & Satisfaction KPIs**

1. **Average Review Score**
2. **% of 5-Star Reviews**  
   → Customer satisfaction indicator.
3. **Top Products with Low Ratings (1–2 stars)**  
   → Possible returns or complaints.
4. **Average Review Score per Seller**
5. **Average Review Score per Product Category**

**Shipping & Delivery KPIs**

1. **Average Delivery Time**  
   → order\_delivered\_customer\_date - order\_purchase\_timestamp
2. **Late Delivery Rate**  
   → % of orders delivered after estimated delivery date
3. **Delivery Delay (Avg. Days Late)**  
   → From bonus section – delivery insight
4. **Average Time from Order to Delivery**  
   → Total time from purchase to final delivery
5. **Shipping Time**  
   → order\_delivered\_customer\_date - order\_shipped\_at
6. **Order Handling Time**  
   → order\_approved\_at - order\_purchase\_timestamp
7. **% of Orders with Missing Delivery Date**  
   → Data quality or logistic issue

**Payment KPIs**

1. **Popular Payment Methods**  
   → % of payment types like credit card, boleto, etc.
2. **Average Number of Installments**
3. **Installment Use Rate**  
   → % of orders using installments
4. **Average Payment per Installment**
5. **Total Payments Received**  
   → Sum of all payment\_value
6. **Revenue per Payment Method**

**Order & Product KPIs**

1. **Total Number of Orders**
2. **Number of Orders by Category**
3. **Canceled Orders**  
   → Count of orders where order\_status = canceled
4. **Pending Orders**  
   → order\_status = created or approved
5. **Delivered Orders by Month**  
   → Trend of successful fulfillment
6. **Top 10 Most Ordered Products**
7. **Top 10 Most Reviewed Products**
8. **Orders with Product Return Risk**  
   → Based on low ratings

**Operational KPIs**

1. **Number of Sellers**
2. **Top Sellers by Revenue or Orders**
3. **Orders by Region/State**  
   → Based on seller or customer location

**Bonus KPIs (Interactive Dashboard Related)**

1. **Monthly Orders Overview**  
   → Total, Delivered, Canceled, Pending
2. **% Revenue Reconciliation**  
   → (Total Revenue ÷ Expected Revenue) × 100
3. **Interactive Filters**  
   → Slicers for Order Status, Payment Type, Date
4. **Drill-Down to Order-Level Details**  
   → Helps explore outliers or anomalies