

Milestone2

KPI's and business questions of supply chain & Logs data:

First: Supply Chain Main Data KPIs

1. Shipment Duration (Supplier Lead Time)

- What is the average actual shipping time across all orders?
- How long does it take between order date and actual shipping?
- How does shipping time vary by shipping mode, vendor, or region?
- Do certain products or categories have longer delivery durations or lead times?

2. Shipping Schedule Accuracy (Schedule Compliance Rate)

- How closely do real shipping days match the scheduled ones?
- How often are shipments delivered on or before the scheduled delivery date?
- Which departments, products, or vendors consistently underperform vs their schedule?

3. Late Delivery Risk Rate (Delivery Failure Risk Index)

- How often are shipments flagged as high-risk for late delivery?
- Are high-risk deliveries linked to specific customer segments, markets, or countries?
- Which departments or products are driving high-risk orders?

4. On-Time Delivery Distribution (Delivery Timeliness Spectrum)

- What proportion of deliveries are on time, early, or late?
- Which shipping mode supports the most reliable deliveries?
- Does shipping mode affect delivery duration?
- Are there regional patterns in delayed or on-time deliveries?

5. Benefit Generated by Orders (Order Revenue Contribution)

- Which products, departments, or regions bring the most benefit?
- Are there patterns of negative benefit in any segment?
- What is the trend of total benefit over time?
- Are high-benefit orders associated with specific regions, categories, or shipping methods?

6. Customer Profitability Index (Customer Margin Health)

- What is the average benefit and sales per customer?
- Which customers are the most profitable overall?
- Is there a segment that consistently brings negative profits?
- Are customers with more frequent orders more profitable?

7. Sales Distribution by Customer (Customer Sales Spread)

- How are total sales distributed across customers?
- Which segment of customers (Consumer, Corporate, Home Office) brings in most sales?
- Are high-sales customers also high-risk or low-profit?

8. Sales by Product Category (Category Demand Share)

- What is the sales volume per product category?
- Are some categories significantly outperforming others?
- Do product categories with high sales also bring higher profits?

9. Department Performance Index (Departmental Profit Tracker)

- Which departments generate the most profit or benefit?
- Are there departments with frequent delivery risks or low margins?
- Which departments align best with on-time delivery?

10. Market Sales Comparison (Market Revenue Benchmarking)

- Which markets (LATAM, USCA, Pacific Asia, etc.) bring the highest sales?
- Which markets have higher shipping risks or delays?
- Do profit patterns align with market-level demand?

11. Geographic Sales Concentration (Regional Revenue Mapping)

- Which countries, cities, or markets contribute most to total sales?
- Are there regions that underperform relative to market potential?
- Is there a match between revenue and delivery reliability by region?

12. Customer Segment Sales Distribution (Segment Revenue Ratio)

- How much revenue is generated by each customer segment?
- Which segments have highest average order size?
- Are certain segments more prone to delays or risks?
- Which customer segments are the most profitable?

13. Order Quantity Behavior (Bulk Purchase Indicator)

- What is the average order item quantity across all orders?
- Do bulk purchases come from certain departments or customer types?
- Is there a pattern in high-quantity orders leading to shipping delays?

14. Discount Effectiveness Impact (Promotion Outcome Tracker)

- Are discounts associated with higher or lower profit per order?
- Which products or departments benefit most from discounting?
- Does higher discount rate reduce benefit even with increased quantity?

15. Payment Method Usage Distribution (Transaction Type Spectrum)

- Which payment types (Cash, Debit, Payment, Transfer) are used most?
- Are some payment types more associated with delayed deliveries?
- Which payment type is connected with the most profit and most sales?
- Which payment types are most used per market or country?

16. Profit per Shipping Mode Analysis (Logistics Margin Analyzer)

- Which shipping modes contribute the most to profit?
- Is high cost of fast shipping offset by better profit ratios?
- Are certain shipping modes losing money consistently?

17. Order Frequency by Location (Order Density Map)

- Which cities and regions receive the most orders?
- Does high order frequency correlate with shipping issues or low profit?
- Are we underpenetrated in high-potential cities?

18. Latitude–Longitude Profit Mapping (Geospatial Performance Indicator)

- Are there regional areas of less-profit zones or high-profit zones?
- What delivery risks exist geographically?

19. Impact of Delays on Profitability (Profit Leakage Triggers)

- Is there a relationship between shipping delays and lost revenue or lower benefit?
- Are customers with late shipments less likely to make repeat purchases?

20. Time-Based Trend Monitoring (Performance Over Time)

- How have shipping times and customer benefits changed over time?
- Are there specific months or quarters where performance dips or peaks?
- What external factors (e.g., region, product category) influence the shipping and sales KPIs most?

Second: Logs Data KPIs:

21. Product Interest Volume (Browsing Engagement Rate)

- Which products are viewed most frequently?
- Are there repeated patterns of views for the same item by different users?
- How does product interest vary by department?

22. Category Popularity Index (Shopping Trend Tracker)

- Which product categories attract the highest interest?
- Are there seasonal/monthly spikes in category views?
- Do category trends differ across regions?

23. Hourly Access Pattern (Customer Activity Clock)

- At what times do users most frequently browse products?

- Are there consistent high-traffic hours across all days?
- Do high-engagement hours vary by department or region?

24. Monthly Traffic Volume (Seasonal Shopping Insights)

- Which months experience peak product interest?
- Is there a link between month and category/department focus?
- Do monthly trends shift across seasons?

25. Department Demand Share (Store Area Interest Ratio)

- Which departments receive the most user engagement?
- Do departments like fitness, golf, fan shop attract distinct segments?
- Is there a time-of-day or region-based pattern in department visits?

26. Regional Visitor Engagement (Geographic Traffic Heatmap)

- Which countries or regions generate the most browsing activity?
- Are specific products or categories more popular in particular locations?
- Are regional preferences affecting department performance?

27. City-Level Browsing Density (Micro-Market Targeting Index)

- Which cities show the highest interaction rates?
- Do small cities outperform large metros in niche categories?
- Where should marketing focus based on city-level engagement?

28. Repeat Product Views (Re-Engagement Score)

- Are some products being viewed multiple times by different users?
- Is repeat interest tied to specific time blocks or locations?
- Do repeat views correlate with higher category performance?