

## **Problem Statement:**

### **Scenario:**

You are working as a data analyst for a retail company that sells a wide range of products including electronics, wearables, and accessories. The company wants to better understand customer behavior, product performance, and regional sales trends in order to optimize its marketing and sales strategies.

### **Business Objectives:**

1. **Customer Segmentation:** Identify high-value customers and understand their purchasing behavior. This will help the company focus its marketing efforts on the most profitable customer segments.
2. **Sales Performance:** Assess the overall sales performance, including which products are selling well, which regions are performing better, and the impact of discounts on sales.
3. **Product Performance:** Analyze the performance of individual products to determine which products are the best sellers and which are underperforming. This will help in making decisions related to product assortment and inventory management.
4. **Regional Trends:** Identify which regions are performing the best and the worst in terms of sales, customer acquisition, and product demand.
5. **Sales Channels & Payment Methods:** Evaluate the different payment methods used by customers and understand how they influence overall sales.

### **Key Metrics to Include in the Dashboard:**

1. **Total Sales:** The overall sales across all products, regions, and customers.
2. **Sales Growth (%):** Compare current sales to the previous period (month/quarter) to measure growth.
3. **Average Transaction Value (ATV):** The average value of a sale, calculated as total sales divided by the number of transactions.
4. **Customer Retention Rate:** The percentage of customers who made repeat purchases over a defined time period.
5. **Product Profitability:** Measure the profit margin of products after accounting for sales and cost of goods sold (COGS).

[\[Click Here\]](#) to get the data.