

# Business Problem Statement

A leading retail organization sought to gain data-driven insights into evolving Customer Insights & purchasing pattern analysis to drive revenue growth, enhance customer experience, and improve long-term loyalty. With noticeable shifts across demographics, product categories, and online vs. offline channels, the business required a deeper understanding of what truly influences customer decisions.

As a Data Analyst, I analyzed consumer behavior data to uncover how factors such as discounts, seasonal trends, customer reviews, and payment preferences impact purchasing patterns and repeat buying behavior. The analysis focused on identifying actionable trends to support targeted marketing, optimized product strategies, and improved customer engagement.

**“How can the company leverage consumer shopping data to identify trends, improve customer engagement, and optimize marketing and product strategies?”**

## Deliverables

1. **Data Preparation & Modeling (Python):** Clean and transform the raw dataset for analysis.
2. **Data Analysis (SQL):** Organize the data into a structured format, simulate business transactions, and run queries to extract insights on customer segments, loyalty, and purchase drivers.
3. **Visualization & Insights (Power BI):** Build an interactive dashboard that highlights key patterns and trends, enabling stakeholders to make data-driven decisions.
4. **Report and Presentation:** Write a clear project report summarizing your key findings and business recommendations. Prepare a presentation that visually communicates insights and actionable recommendations to stakeholders.
5. **GitHub Repository:** Include all Python scripts, SQL queries, and dashboard files in a well-structured repository.