

Business Problem Statement

A retail business aims to better understand **customer purchasing behavior and engagement patterns** to improve retention, increase average order value, and reduce over-reliance on discounts. While the company has access to customer demographics, purchase frequency indicators, spend data, subscription status, and feedback ratings, it lacks clarity on **which customer segments drive revenue, what behaviors signal loyalty, and which levers meaningfully influence repeat purchases**.

The management team is particularly interested in answering:

- Which customer segments contribute the most value?
- How do frequency, subscriptions, and discounts relate to spending behavior?
- Are discounts actually improving customer satisfaction?
- Where should the business focus retention and growth efforts?

You are tasked with analyzing customer shopping behavior data to answer the core business question:

“How can customer behavior and segmentation insights be used to improve retention, optimize engagement strategies, and drive sustainable revenue growth?”

Project Deliverables

1. Data Preparation & Modeling

- Cleaned and structured customer-level data for analysis.
- Created derived fields and proxy metrics (e.g., frequency score, CLV proxy, RFM segments) to support behavioral analysis in the absence of transaction-level time data.

2. Customer & Behavioral Analysis

- Performed segmentation analysis using **RFM logic** to classify customers into behavioral groups such as Champions, Loyal, Occasional, and At-Risk.
- Analyzed relationships between purchase frequency, spend, discounts, subscriptions, and review ratings to identify key drivers of repeat behavior.

3. Visualization & Dashboarding (Power BI)

- Designed an interactive Power BI dashboard with KPIs, customer segmentation views, behavioral comparisons, and advanced visuals.

- Implemented clear page-level navigation, conditional formatting, and business-friendly labels to support non-technical stakeholders.

4. Business Insights & Recommendations

- Translated analytical findings into **data-backed business insights** and **actionable recommendations** focused on retention, bundling, subscription growth, and discount optimization.
- Documented assumptions and limitations to reflect real-world data constraints and analytical maturity.

5. Documentation & Portfolio Readiness

- Prepared a structured project narrative suitable for resume, LinkedIn, and recruiter review, including clearly stated objectives, insights, recommendations, and limitations.