## **Data-Driven Insights and Strategy Development for a Leading Retail Chain**

Business Context:

Collaborated with one of India’s top retail chains to provide actionable insights using point-of-sale (POS) data. The project aimed to define CRM, marketing, and sales strategies, analyse business performance and improve customer and store-level metrics. As an analyst for AnalytixLabs, my role involved uncovering insights related to customer behaviour, product performance, store trends, and sales optimisation to boost growth and profitability.

Key Objectives:

* Analyse product categories, customer behaviour, and store performance.
* Perform cohort analysis to assess customer retention and repeat purchases.
* Study sales trends, seasonal impacts, and opportunities for cross-selling.
* Provide actionable recommendations to enhance sales and customer satisfaction.

Data Overview:

* Source: POS data from 37 stores, spanning September 2021 to December 2023.
* Data Structure: Six files with a relational structure:
* Customer Level: One record per customer.
* Order Level: One record per order.
* Item Level: Multiple items per order.

Process and Execution:

* Data Preparation: Imported data into SQL Server and performed data profiling. Addressed missing values, duplicates, and inconsistencies. Standardised formats and consolidated data into customer-level, order-level, and store-level tables.
* Data Analysis: Product Analysis: Identified top-performing categories and high-demand products.
* Customer Segmentation: Conducted RFM analysis to identify high-value customers and churn risks.
* Sales Trend Analysis: Evaluated seasonal impacts and campaign performance.
* Store Performance: Compared sales and profit metrics across regions.
* Cohort Analysis: Assessed customer retention and repeat purchase patterns.
* Cross-selling: Identified frequently purchased product combinations.

Key Findings:

* Customer Insights: High-value customers contributed significantly but retention rates were low.
* Product Performance: The top 10 most expensive products contributed a significant share of sales.
* Sales Trends: Weekly sales dipped on weekends, suggesting untapped promotional opportunities.
* Store Performance: Certain stores consistently outperformed due to better management and marketing.

Deliverables:

* Detailed Report: Insights on customer, product, and store performance.
* Dashboards: Visualizations for key trends, segmentation, and category performance.
* Presentation: Summary of business objectives, assumptions, insights, and recommendations.

Recommendations:

* Customer Retention: Introduce loyalty programs and personalized offers for churned customers.
* Inventory Optimization: Focus on high-demand products and reduce overstocking of low-performing items.
* Store Strategies: Share best practices from high-performing stores and target low-performing regions with tailored campaigns.
* Promotion Optimization: Leverage data-driven insights for weekend promotions and exclusive launches.

Impact:

* Enhanced customer segmentation and retention strategies.
* Increased revenue through effective cross-selling and bundling.
* Improved store profitability by addressing operational inefficiencies.
* Better inventory management, reducing costs and maximizing availability.