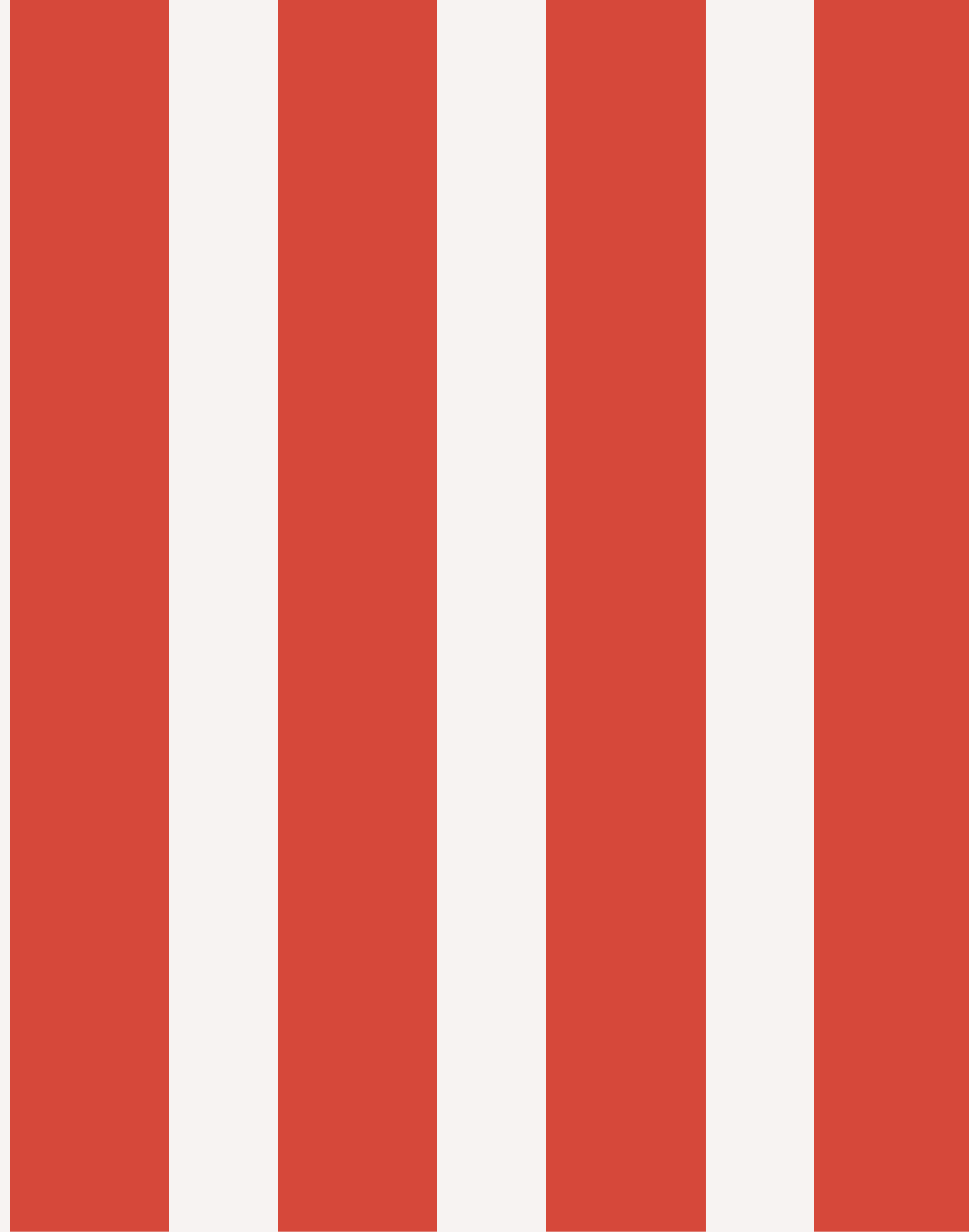# E—Commerce

Customer & Sales Behavior Analytics

Project Overview

Objective:

To conduct a comprehensive analysis of customer behavior, order patterns, product performance, and sales trends using structured data, with the aim of uncovering actionable business insights.

Data Scope:

The dataset spans from 2016 to 2018 and includes detailed information on customer demographics, order history, product attributes, payment methods, and transaction values.

Goal:

To empower data-driven decision-making across marketing, operations, and strategic planning by identifying key trends, performance drivers, and areas for business optimization.

Basic Analysis

Objective: To establish a strong foundation by understanding customer distribution, sales volume, and basic transactional behavior.

01 **Identified all unique customer cities to map geographical reach.**

02 **Counted all orders placed in the year 2017 to understand temporal order volume.**

03 **Calculated total sales per product category to spot high-performing segments.**

04 **Measured the percentage of installment-based payments, offering insights into customer purchasing behavior.**

Trend & Behavior Insights

Analyzed monthly order volumes in 2018 to detect seasonality and demand spikes.

Computed average number of products per order grouped by city to study purchasing trends.

Determined revenue contribution % from each product category to highlight revenue drivers.

Ranked sellers by total revenue to identify top contributors and potential partnership opportunities.

• Explored the correlation between product price and purchase frequency to understand value perception.

Strategic & Predictive Insights

Computed moving average of order values per customer to monitor spending trends over time.

Aggregated monthly sales across years to observe growth and seasonal consistency.

Calculated year-over-year growth rates to evaluate business performance.

Estimated 6-month customer retention rates to assess loyalty and churn risks.

Thank You !

Extracted foundational insights to map customer distribution, order volume, and category-level sales performance.

Uncovered behavioral trends and performance drivers across time, geography, and product segments.

Delivered strategic analytics to evaluate growth, customer retention, and high-value opportunities.