

Executive Summary:

In today's competitive market environment, organizations must shift from intuition-driven decisions to data-driven revenue optimization strategies. Despite having access to transactional and customer-level sales data, many companies struggle to identify their most valuable customers and the product categories that truly drive profitability.

This project aims to transform raw sales data into strategic business insights by analyzing customer purchasing behavior, revenue contribution patterns, and product performance metrics. Through structured data analysis and customer segmentation techniques, the study identifies high-value customer segments, evaluates category-level profitability, and uncovers behavioral differences across demographic groups.

The ultimate objective is to provide actionable, data-backed recommendations that enable the company to:

- Improve customer retention
- Optimize marketing allocation
- Increase average customer lifetime value
- Maximize overall revenue performance

By integrating descriptive and diagnostic analytics approaches, this analysis bridges the gap between data and decision-making, supporting sustainable revenue growth.

Problem Statement:

The company possesses extensive transactional data; however, it lacks analytical visibility into customer profitability drivers and segment-level revenue contribution.

Without identifying high-value customers and high-performing product categories, marketing investments and strategic initiatives risk being inefficient and misaligned with revenue optimization goals.

Therefore, a structured customer segmentation and profitability analysis is required to uncover revenue concentration patterns, behavioral differences, and growth opportunities that can directly enhance business performance.

How can the company increase revenue by identifying high-value customers and profitable product categories?