



# Retail Customer Behavior Analysis

Data-Driven Insights for Strategic Growth

# Project Overview

O1

## Business Objectives

Understand purchasing patterns and customer loyalty drivers

O3

## Methodology

Python, SQL, and Power BI for comprehensive analysis

O2

## Dataset

3,900 customer transactions with demographics and purchase details

O4

## Deliverables

Actionable insights for marketing and engagement strategies



# Analytical Approach

## Data Preparation

- Cleaned 3,900 records
- Standardized columns
- Feature engineering

## Analysis Tools

- Python (Pandas)
- SQL (SQLite) Power
- BI dashboards

## Key Features

- Age groups
- Purchase frequency
- Loyalty indicators



# Customer Demographics & Revenue

## Gender Insights

Male customers generate higher total revenue due to larger customer base

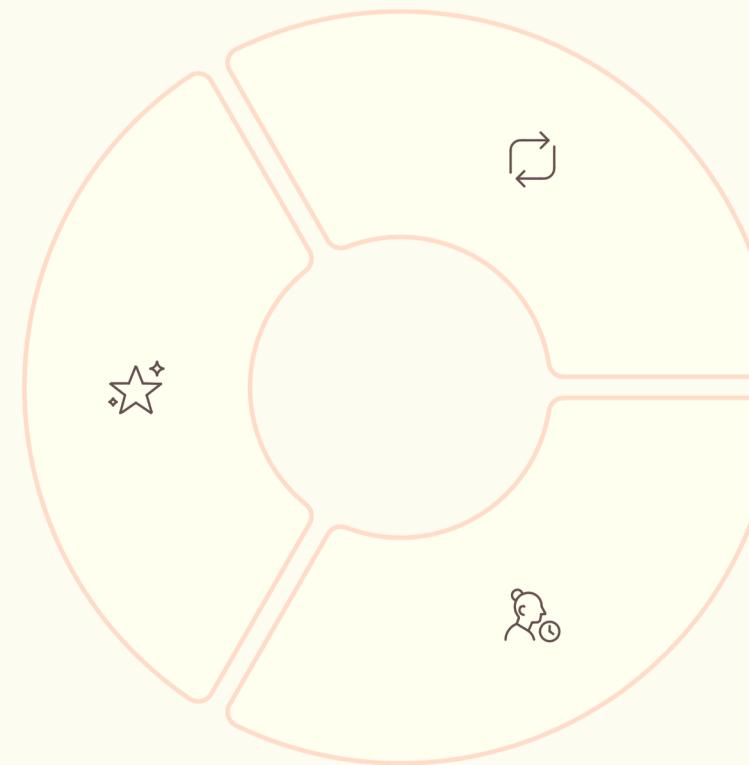
## Spending Patterns

Average spending per purchase similar across genders

## Age Impact

Middle-aged and adult customers contribute highest revenue share

# Customer Loyalty Analysis



## Loyal Customers

Largest customer segment with strongest engagement

## Repeat Buyers

Higher purchasing consistency and engagement levels

## Age Factor

Older customers show stronger loyalty behavior

# Discount & Subscription Impact

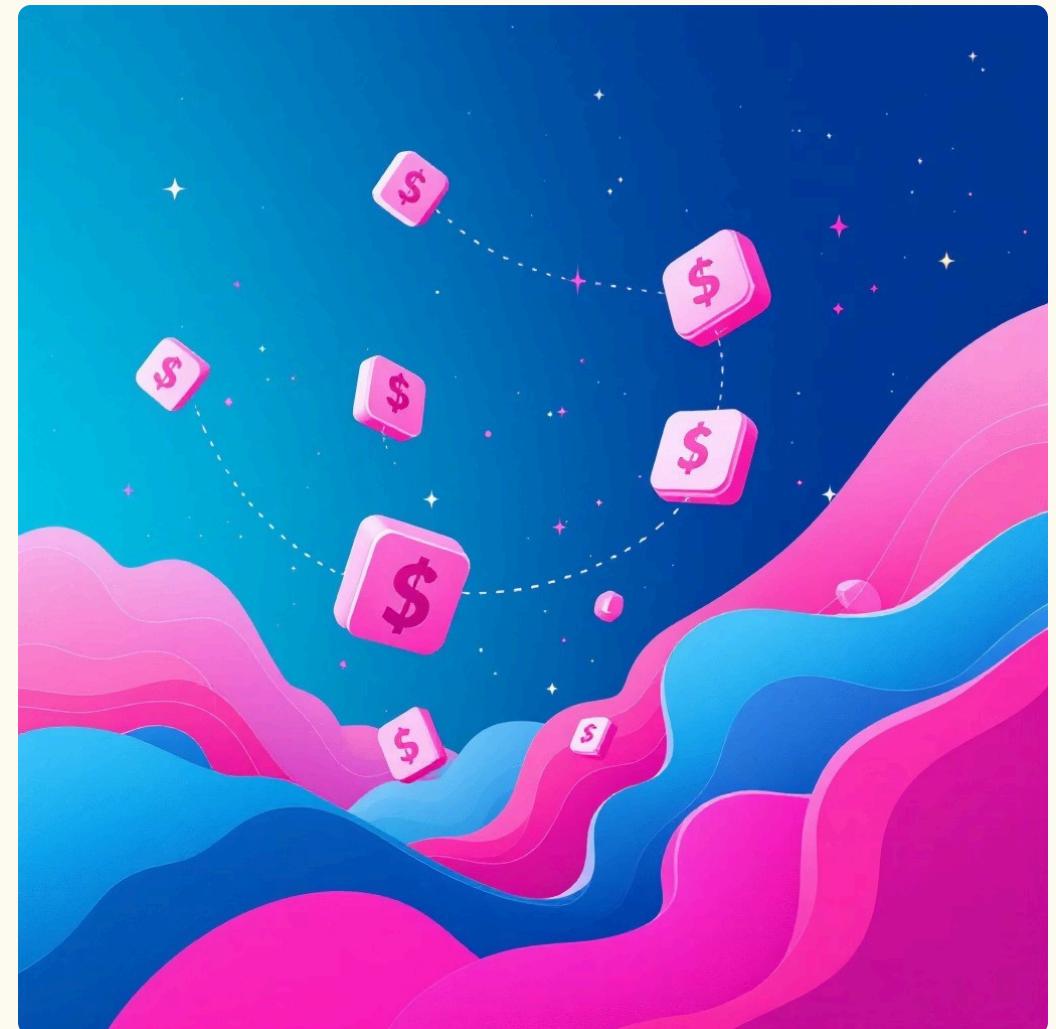
## Discount Strategy

- Significant portion use discounts
- Discount users spend more than average
- Price sensitivity varies by product



## Subscription Behavior

- Similar per-purchase spending
- Stable, predictable revenue
- Higher among repeat buyers



# Product Performance

## Clothing Category

Strongest-performing category in sales volume

## Top Products

Consistent performers across all categories

## Review Correlation

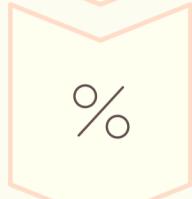
Higher repeat purchases linked to better ratings

# Strategic Recommendations



## Strengthen Loyalty Programs

Reward repeat customers with personalized offers and exclusive benefits



## Optimize Discount Strategy

Apply discounts strategically to boost volume without reducing average spending



## Enhance Subscription Value

Improve offerings to increase retention and long-term engagement



## Segment-Based Marketing

Target middle-aged and adult segments with tailored campaigns



# Future Opportunities

1

## Time-Series Analysis

Incorporate temporal data for trend and seasonality insights

2

## Predictive Modeling

Estimate customer lifetime value and subscription likelihood

3

## Repeat Purchase Forecasting

Develop models to predict future buying behavior

# Key Takeaways

3.9K

Transactions Analyzed

Comprehensive dataset providing  
deep insights

5

Strategic Actions

Data-driven recommendations for  
growth

3

Tools Used

Python, SQL, and Power BI  
integration

**Transform retail transaction data into actionable business insights for improved customer engagement and data-driven decision-making.**