



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

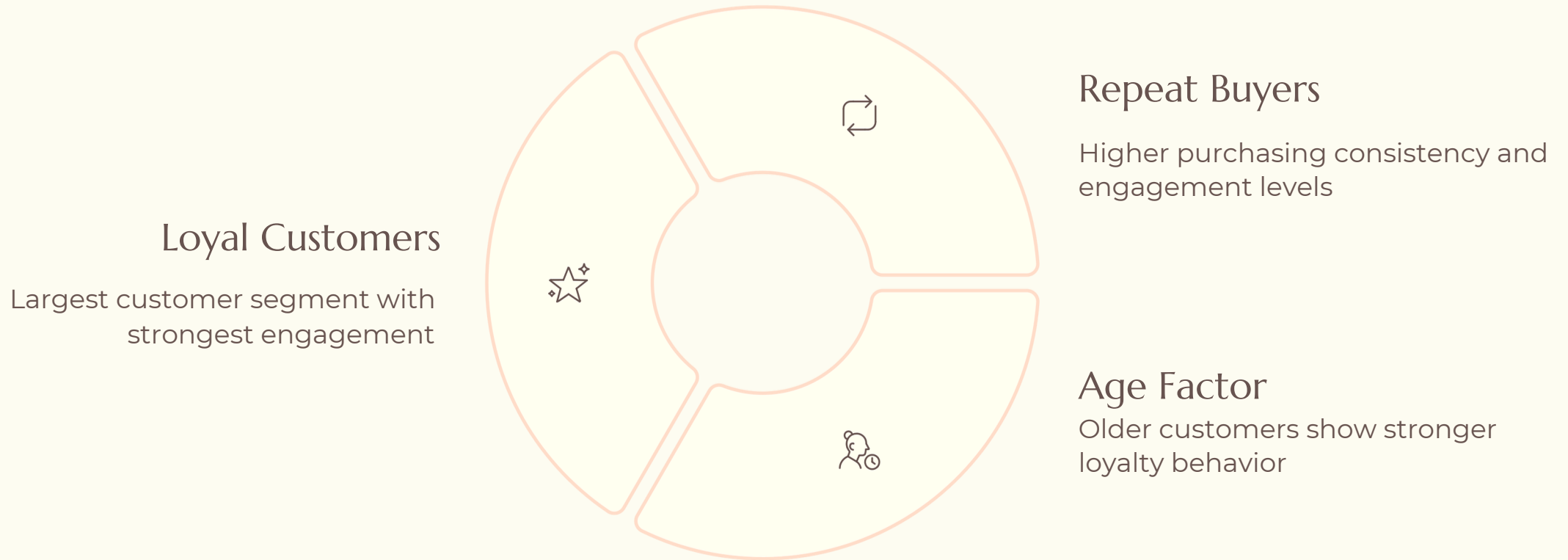
Spending Patterns

Average spending per purchase similar across genders

Age Impact

Middle-aged and adult customers contribute highest revenue share

Customer Loyalty Analysis



Discount & Subscription Impact

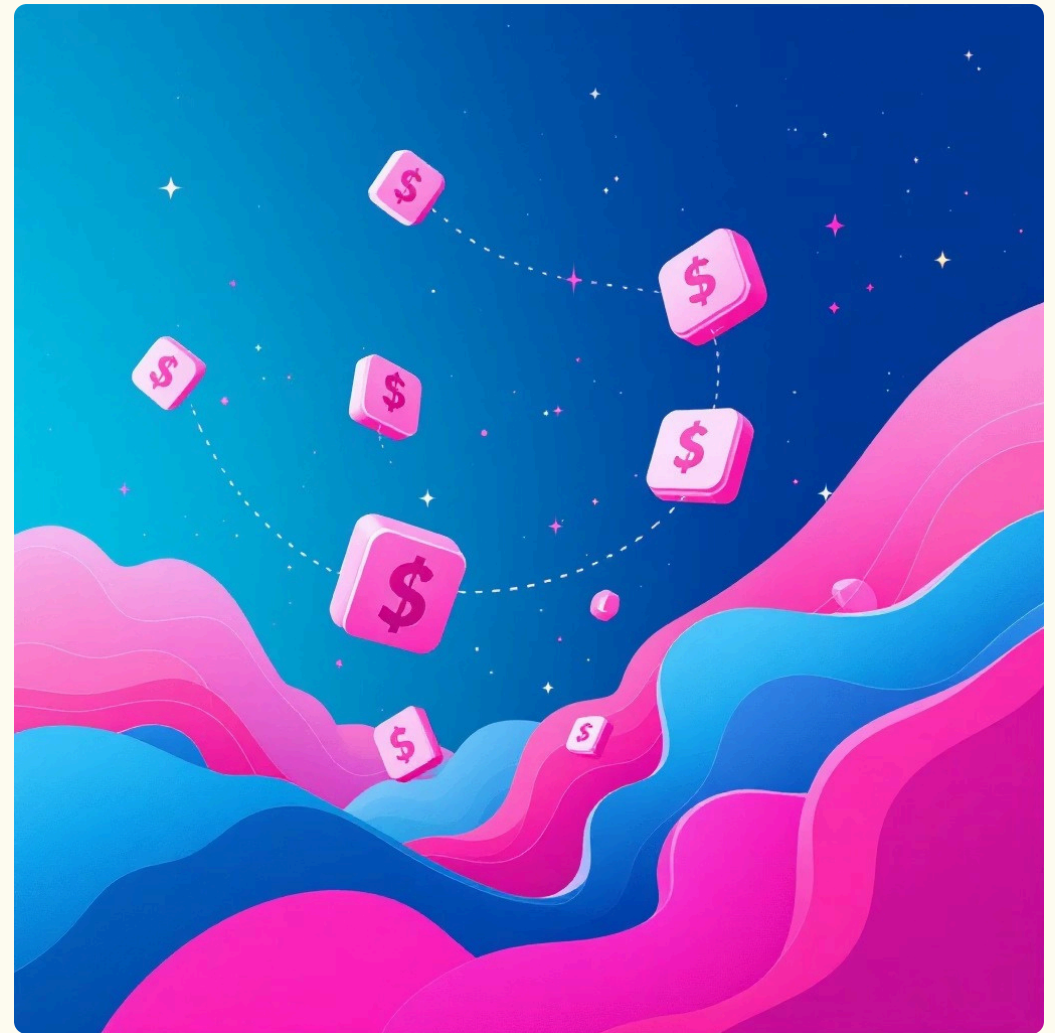
Discount Strategy

- 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.

Project by Qusay | Data Analytics Portfolio