

REPORT

CHAT24

Analytics

Dot 2309



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Roue.: 68s



1,093

Total Sales (units)



24,930 \$

Customer Shopping Behavior Analysis

Data-driven insights into revenue drivers, customer behavior, and strategic opportunities

Comprehensive Data Analysis Approach



Python & Pandas

Data preprocessing, feature engineering, exploratory analysis



MySQL

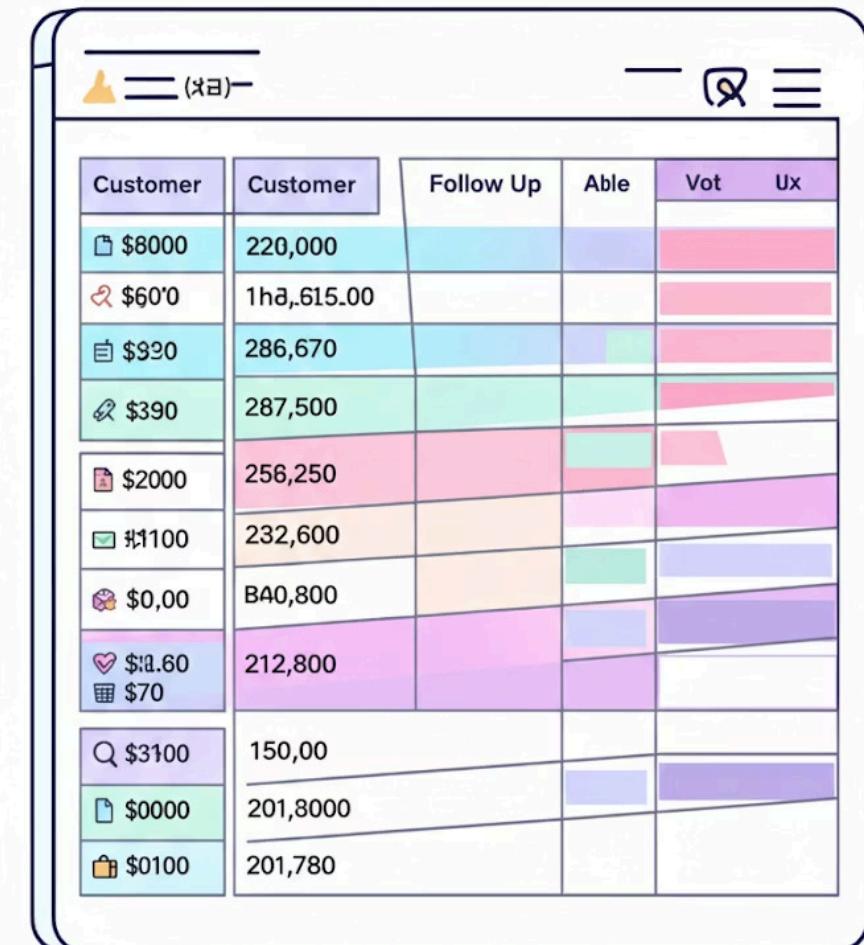
Structured business queries, aggregations, validation



Tableau

Interactive dashboards, visual storytelling, insights delivery

3,900 transactions analyzed across 18 features spanning demographics, purchases, and behavioral attributes



Customer	Customer	Follow Up	Able	Vot	Ux
⌚ \$8000	220,000				
⌚ \$60'0	1h8,615.00				
⌚ \$390	286,670				
⌚ \$390	287,500				
⌚ \$2000	256,250				
⌚ \$1100	232,600				
⌚ \$0,00	B40,800				
⌚ \$1.60 ⌚ \$70	212,800				
⌚ \$3100	150,00				
⌚ \$0000	201,8000				
⌚ \$0100	201,780				

Dataset Overview

3,900 Transactions

18 Features

Complete customer demographics, purchase details, and behavioral data

Missing Data

37 missing values in Review Rating column—imputed using category-wise medians

Key Dimensions

Age, gender, location, size, category, season, discounts, subscriptions, purchase frequency



Data Preparation Process

01

Missing Value Treatment

Category-wise median imputation for review ratings

02

Column Standardization

Converted to snake_case for consistency

03

Feature Engineering

Age groups, numeric purchase frequency, repeat customer flags

04

Behavioral Segmentation

Customer categories: New, Occasional, Regular, Heavy buyers

Age Groups & Revenue Patterns

Young (18–25)

Average spend: ~\$60

Lower frequency, good per-transaction value

Adult (26–40)

Average spend: ~\$60

Moderate frequency

Middle-aged (41–60)

Average spend: ~\$60

Highest total revenue from frequent purchases

Senior (61–100)

Average spend: ~\$60

Steady purchasing behavior

- Revenue differences driven by **purchase frequency**, not transaction size





Discount Impact Analysis

Per-Transaction Spend

No increase in spending with discounts across age groups

Category Variability

Positive lift in some categories; blanket discounts ineffective

Strategic Insight

Selective discounting by category more effective than universal offers

Customer Loyalty & Retention

89%

Repeat Buyers

Majority return for additional purchases

\$60

Average Spend

Consistent across all age groups

Subscription Impact

- Slightly higher retention rates
- No significant spending increase
- Stronger effect in Footwear & Outerwear

Revenue Drivers

- High purchase volume from repeat customers
- Frequency-driven growth
- Non-subscribers generate most revenue

Product Performance Insights



Clothing

Highest revenue despite lower ratings—
strong demand outweighs perceived quality



Footwear

Highest ratings but lower revenue—excellent
quality needs better visibility



Outerwear

Subscription impact strongest—loyalty
programs most effective here

Ratings consistent across categories; demand and positioning drive revenue more than ratings

Strategic Business Recommendations



Increase Purchase Frequency

Loyalty programs prioritizing repeat behavior over higher spending



Targeted Discount Strategy

Selective category-based offers; avoid blanket discounting



Optimize Subscriptions

Focus on long-term engagement, not discount-driven revenue



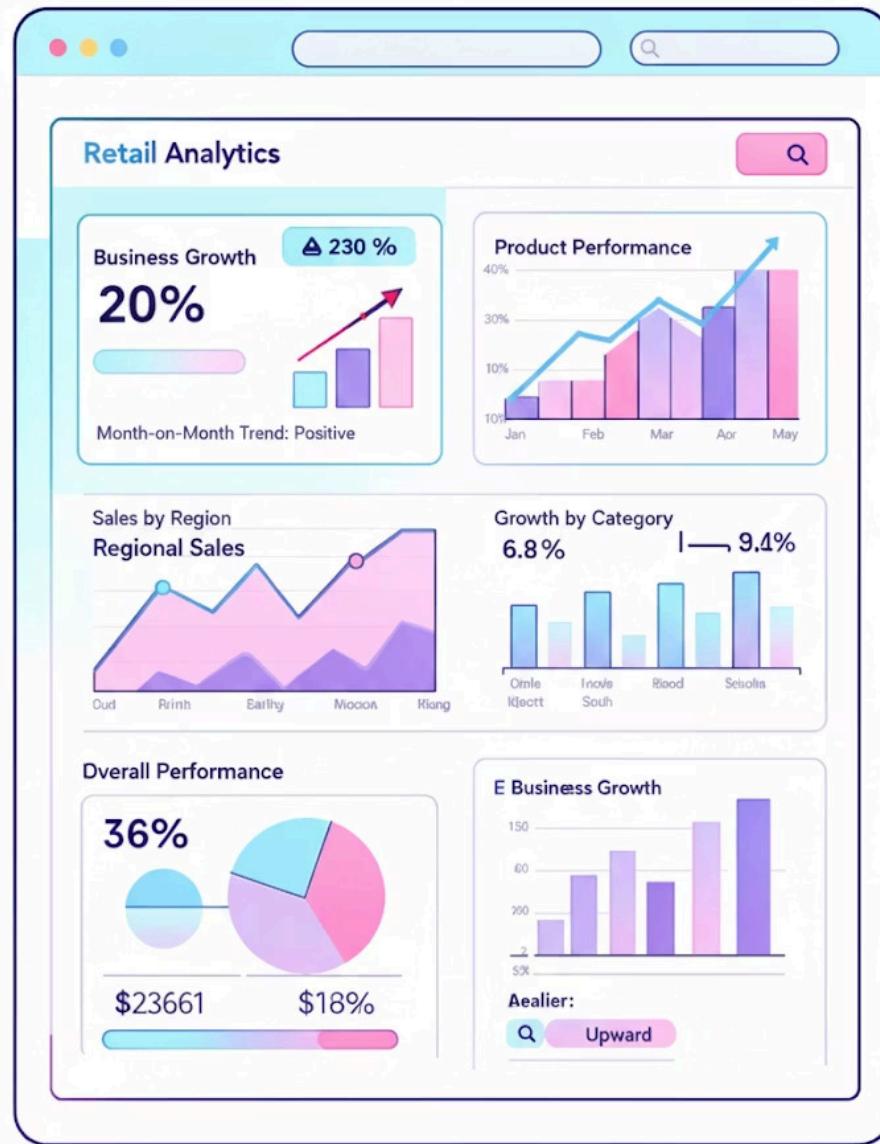
Strategic Product Positioning

Prioritize high-revenue products in marketing regardless of ratings



Segment-Specific Marketing

Focus on middle-aged customers and weekly/bi-weekly buyers



Key Takeaways



Frequency Over Size

Revenue driven by purchase frequency, not transaction amount

Data-Driven Strategy

Python, SQL, Tableau integration delivers actionable insights

Revenue Growth Path

Loyalty programs, selective discounts, targeted segmentation

Customer value driven by behavioral patterns and repeat engagement—not single transaction size