

Final Analysis & Insights

Overview

This analysis was performed on customer purchase data to understand consumer behavior, revenue distribution, product performance, and the impact of discounts, shipping, and subscriptions. SQL was used to extract insights, and the results help identify important business patterns and opportunities for improvement.

Key Findings & Insights

1. Revenue by Gender

The analysis shows a difference in total revenue contribution between male and female customers. This insight helps the business understand which gender group drives higher sales and can guide targeted marketing strategies.

Insight: Gender-based marketing campaigns can be optimized using purchasing trends.

2. Discount Impact on Spending

Some customers who used discounts still spent more than the average purchase value, showing that discounts do not always mean reduced revenue.

Insight: Discounts encourage high-value customers to make purchases, proving they are an effective sales strategy when used wisely.

3. Product Quality & Ratings

The top 5 products with the highest average ratings indicate the items that customers are most satisfied with.

Insight: These products should be prioritized for promotions, restocking, and featured advertising.

4. Shipping Type Preference

The comparison between Standard and Express shipping shows variation in average spending.

Insight: Customers choosing Express shipping generally spend more, indicating that faster delivery influences purchase behavior.

5. Subscription Effect on Revenue

Subscribed customers tend to show higher average spending and generate more total revenue compared to non-subscribers.

Insight: Subscription programs improve customer loyalty and boost revenue. Strengthening subscription offers can improve business profitability.

6. Discount-Heavy Products

Some products have a higher percentage of discounted purchases.

Insight: These products may need better pricing strategy, quality improvement, or promotion planning to reduce dependency on discounts.

7. Customer Segmentation

Customers were grouped into:

- New customers
- Returning customers
- Loyal customers

Insight: Loyal customers form the most valuable group.

Retention strategies such as exclusive offers and rewards should focus on this segment.

8. Top Products by Category

Each category contains specific products that dominate sales volume.

Insight: These products are the category leaders and should be highlighted in campaigns and inventory planning.

9. Repeat Buyers & Subscription

Most repeat buyers are subscribed users.

Insight: Customers with frequent purchases are more likely to subscribe, showing a strong link between loyalty and subscriptions.

10. Revenue by Age Group

Revenue differs across age groups.

Insight: Marketing should be designed age-wise to attract high-value customer segments while also improving engagement in low-performing groups.