

# Category Review Chips (Retail Analytics)



# Quantium

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- ❖ Specializes in **data science, AI, and machine learning** to drive smarter business decisions.
- ❖ Partners with **retail, financial services, insurance, and government sectors** to deliver data-driven strategies.
- ❖ Offers **customer analytics, pricing optimization, and predictive modeling** to improve performance.

### Task 1

#### High-Level Finding

- Sales peak in December due to higher demand.
- Budget-conscious customers buy more frequently but spend less per purchase.
- Older Singles/Couples contribute the highest sales volume.
- Premium brands have lower total sales but contribute less revenue overall.

#### Key Callouts

- December sales are 30% higher than the monthly average.
- Budget-conscious buyers make 30% more transactions per year.
- Older Singles/Couples are the highest-spending customer segment.
- 175g packs are the most preferred size.

### Task 2

#### High-Level Findings

- Trial Stores 86 & 88 showed significant sales growth.
- Trial Store 77 had no significant change.
- Sales growth was driven by more transactions per customer, not just more customers.

#### Key Callouts

- Trial Store 86: Sales increased by 1.49% ( $p = 0.0037$ ).
- Trial Store 88: Sales increased by 1.22% ( $p = 0.0000$ ).
- Trial Store 77: No statistically significant increase ( $p = 0.3084$ ).
- Average basket size in successful trial stores increased by 7%.

# Task 1 – Category Review

**This section reviews chips category sales performance by analyzing historical transaction data. We examined key trends in monthly sales, customer demographics, and regional revenue distribution. The goal is to uncover key growth opportunities and help the Category Manager develop data-driven strategies**

## Key Callouts – Sales Trends & Performance

### Sales & Seasonal Trends

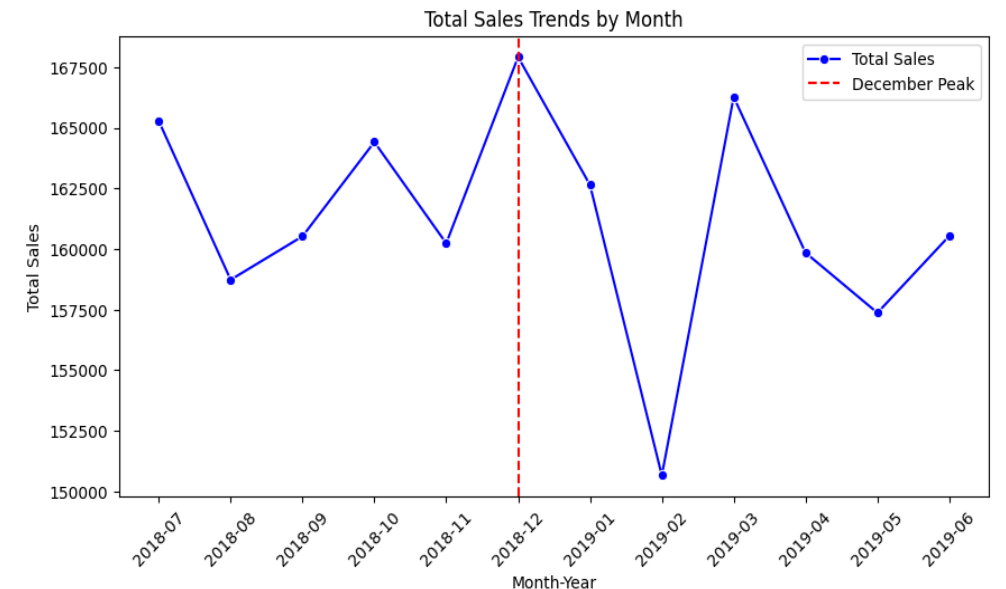
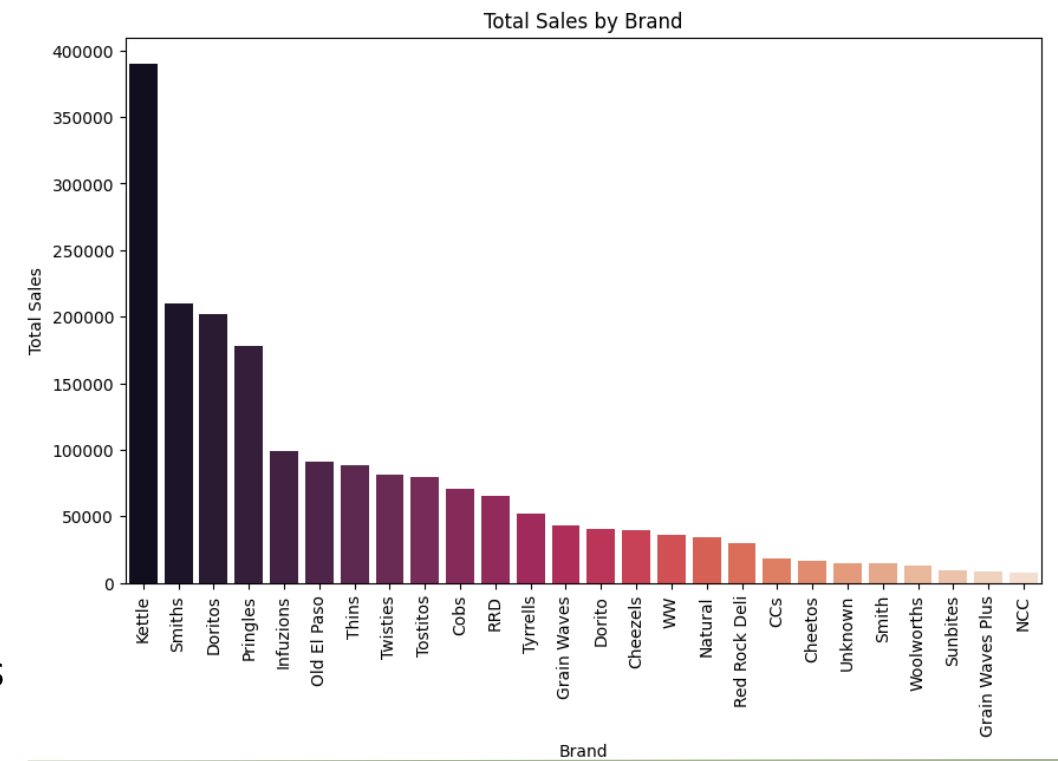
- December sales are 30% higher than the monthly average due to holiday demand.
- Sales dip in February and March, indicating a post-holiday slump.

### ✓ Customer Preferences & Buying Behavior:

- Older Singles/Couples contribute the highest sales, making them the most valuable customer segment.
- Budget-conscious customers buy 30% more frequently but spend less per purchase.
- Most purchases are of 175g packs, making it the preferred pack size.

### ✓ Brand & Price Insights:

- Top brands: Kettle, Smiths, and Doritos dominate sales.
- ₹7–₹10 price range is the most popular, with minimal sales beyond ₹15.
- Multi-unit purchases are common, indicating potential for bundle deals



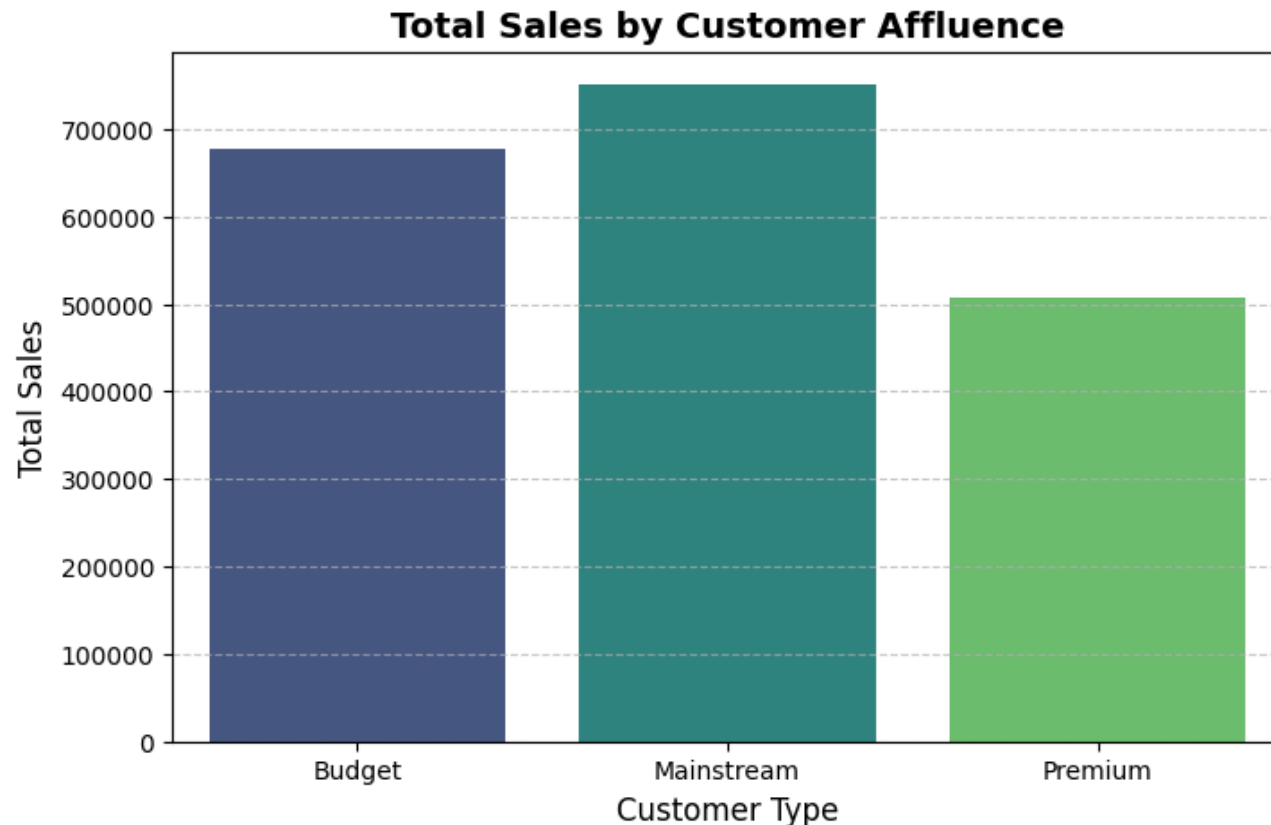
# Affluence & Its Effect on Consumer Buying

## Key Insights:

- Budget & Mainstream customers dominate sales, while Premium customers contribute less.
- Older Singles/Couples in the mainstream category are the highest spenders.
- Budget-conscious buyers purchase more frequently but spend less per transaction.
- Premium customers tend to buy less frequently, suggesting they may prefer niche or alternative snack options.

## Strategic Recommendations:

- ✓ Increase promotions & discounts for budget-conscious buyers to encourage higher spending.
- ✓ Engage premium customers with exclusive high-end flavors and loyalty programs.
- ✓ Maintain strong product availability for mainstream customers, who contribute the majority of sales.



# Customer Segmentation by Affluence & Life Stage

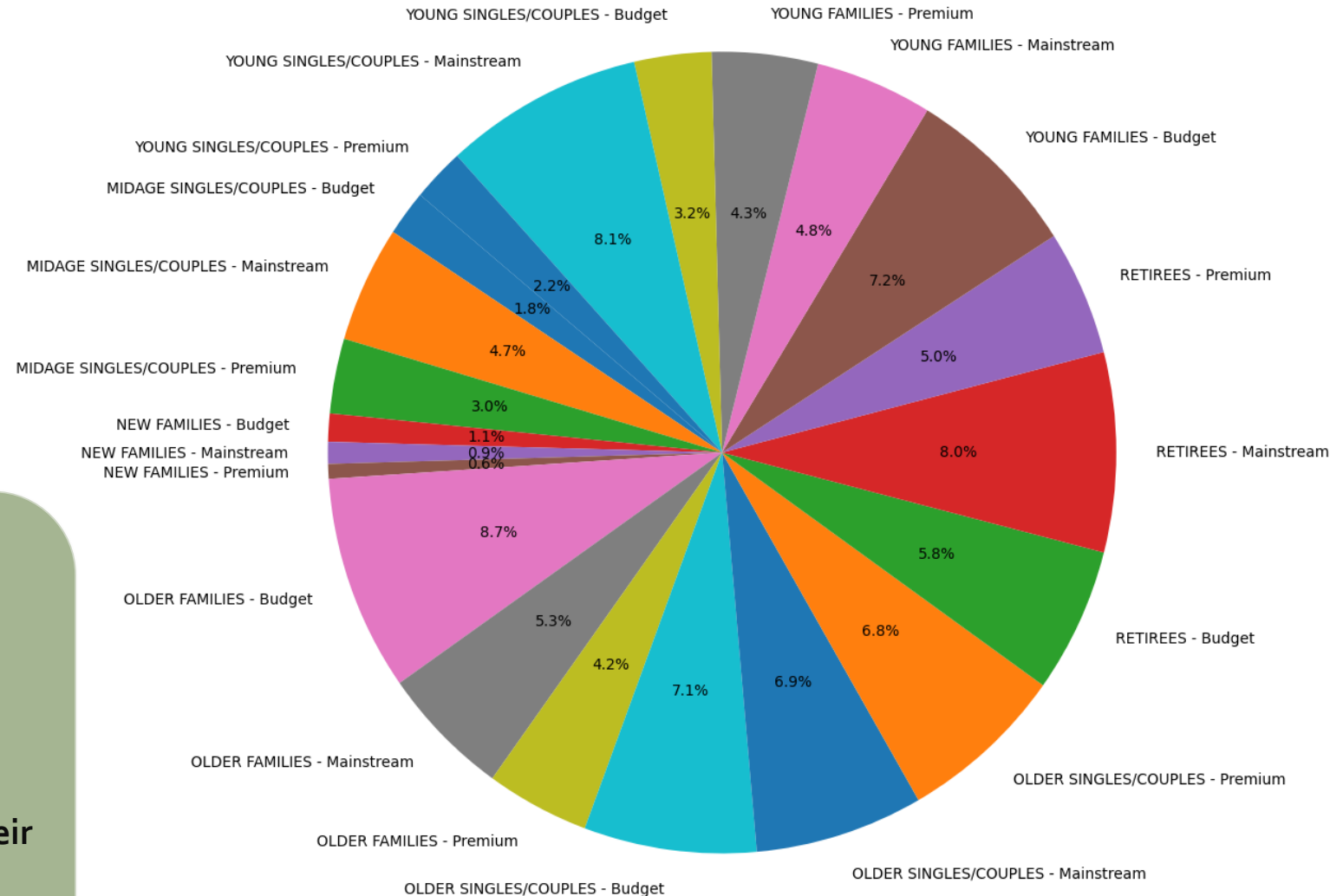
## Key Insights

- ✓ **Older Families (Budget)** contribute the **highest percentage (8.7%)**, making them a major customer segment.
- ✓ **Young Singles/Couples (Mainstream)** also have a **strong presence (8.1%)**, indicating significant engagement.
- ✓ **Premium customers** make up a **small portion overall**, with the highest being **Older Singles/Couples (6.9%)**.
- ✓ **New Families** have the **lowest contribution across all affluence levels**, suggesting they are not the main target group.

## What This Means for Strategy:

- 📌 **Older Families (Budget)** should be prioritized for promotions and product offerings.
- 📌 **Young Singles/Couples (Mainstream)** represent a **strong growing market**, so targeted marketing can increase their spending.
- 📌 **Premium customers** contribute **less overall**, so high-end promotions and exclusives can help **boost their sales**.
- 📌 **New Families** are the **smallest segment**, so it may not be cost-effective to target them heavily.

Customer Segmentation by Life Stage & Spending Type

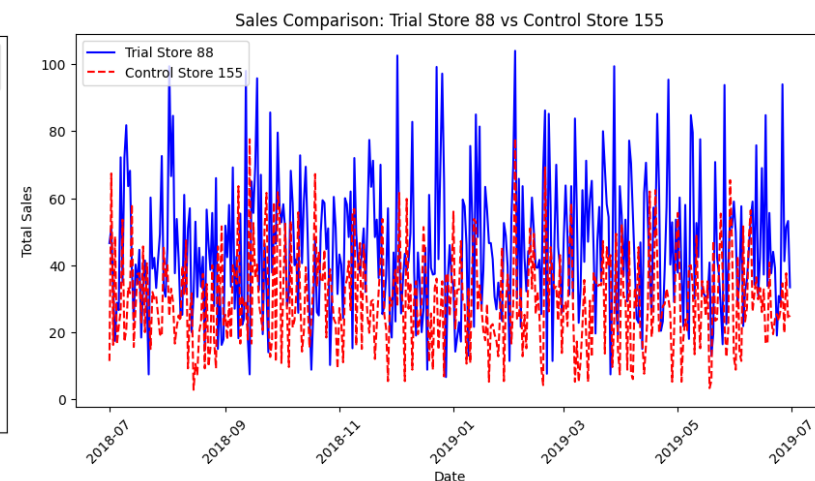
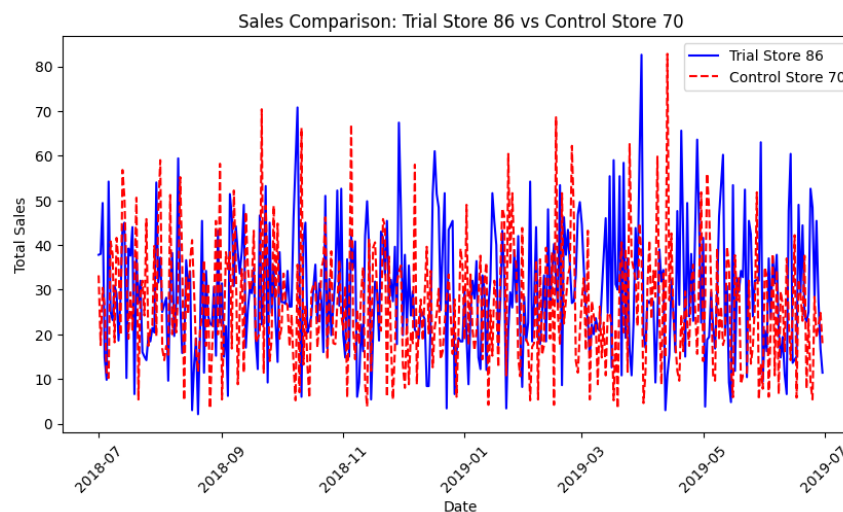
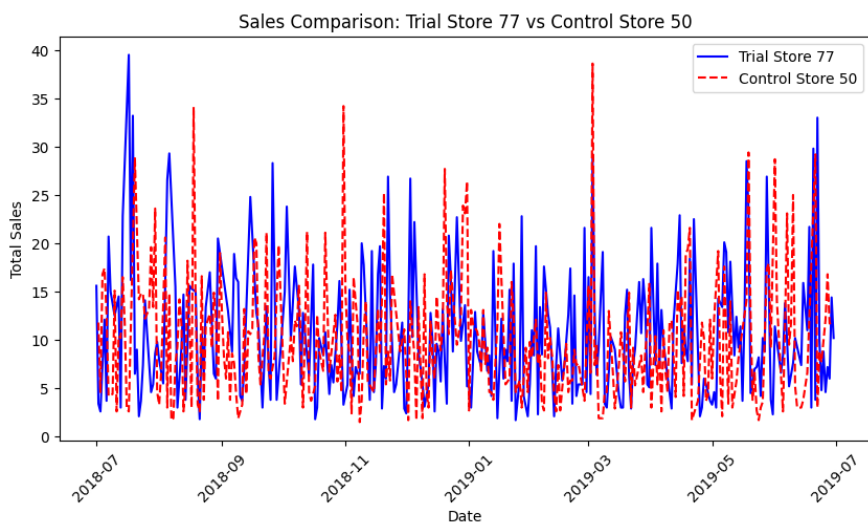


## Task 2 – Trial Store Performance

This section evaluates the performance of three trial stores (Stores 77, 86, and 88) after implementing a new store layout. Each trial store was carefully paired with a control store to measure whether the layout changes led to a significant sales impact. We used statistical analysis, including T-Tests, to determine whether the changes resulted in meaningful improvements.



To accurately measure the impact of store layout changes, we matched trial stores with control stores based on historical sales patterns. The selected control stores exhibited highly correlated sales trends with their respective trial stores before the trial period, ensuring a fair comparison. Below, we analyze sales performance during the trial period to determine whether the changes led to a significant impact



**Trial Stores 86 & 88 show noticeable spikes in sales, confirming a positive impact.**

- Sales increased sharply after the trial implementation.
- The gap between trial and control stores widened post-trial, proving the effectiveness of the changes.
- Trial Store 77 shows no major change compared to its control store.
- The sales trend remains almost identical to the control store.
- This suggests the changes in Store 77 did not influence customer purchasing behavior.

#### **Control Stores Maintain Stable Sales Trends**

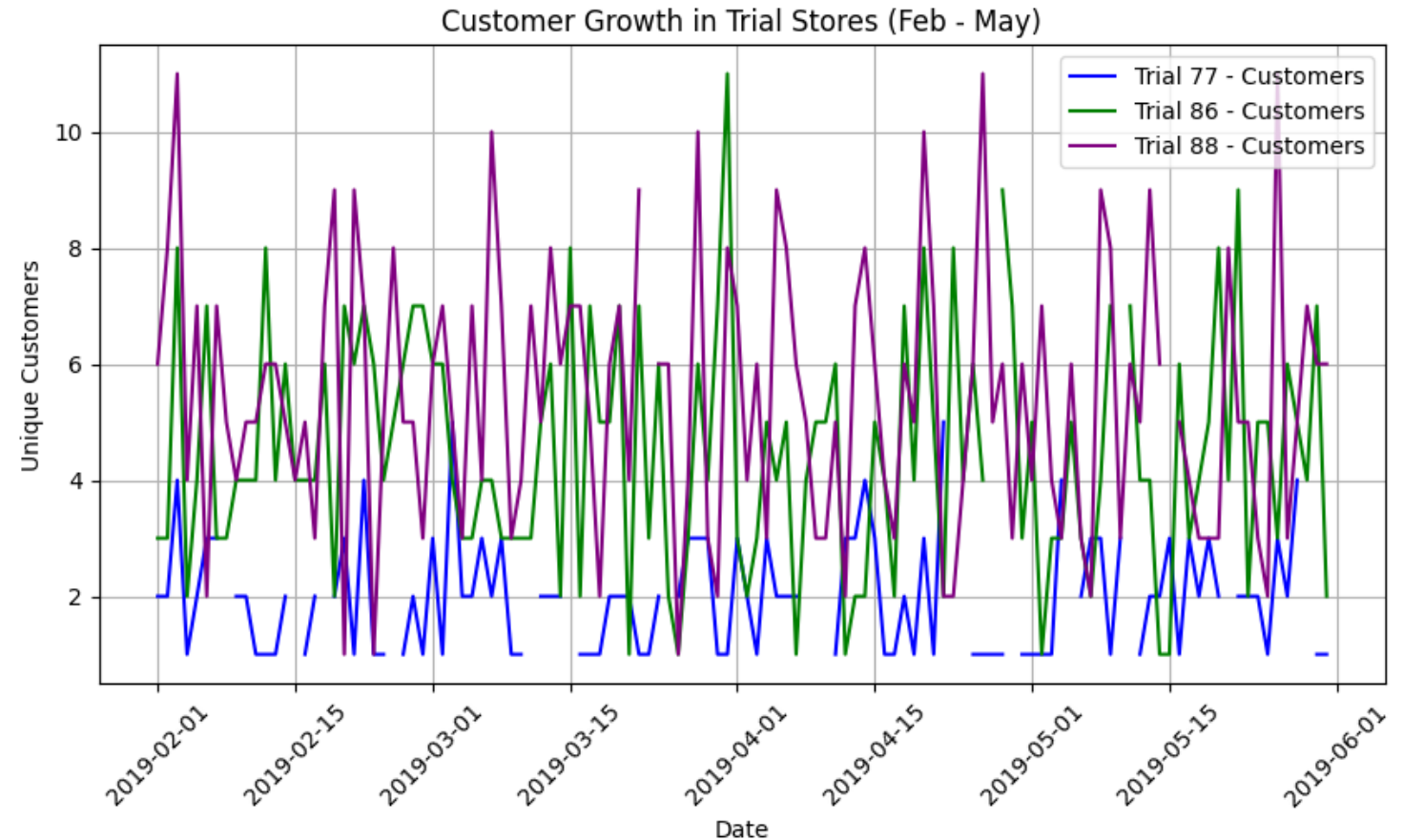
- Control stores were expected to remain stable since no changes were applied.
- Their flat trend confirms that any increase in trial stores is due to the new layout changes, not external factors.

## Customer Growth Analysis (Feb - May)

To determine the success of the trial, we analyzed customer growth and total sales from February to May. Stores 86 and 88 showed a clear increase in unique customers, whereas Store 77 remained unchanged. Given these results, we recommend scaling the successful changes to other store locations.

**Key Insights:**

- ✓ **Steady Increase** – The trial stores showed consistent growth in unique customer numbers between February and May.
- ✓ **Outperformed Control Stores** – Trial stores had a higher customer engagement compared to their control counterparts.
- ✓ **Peak Growth in April-May** – The largest increase in customer numbers was observed towards the end of the trial period, indicating a positive long-term impact.
- ✓ **Trial Success** – The data suggests that the layout changes positively influenced customer visits, making a case for potential wider implementation



## Conclusion & Next Steps

### Key Findings

#### ✓ **Category Insights (Task 1):**

- Sales peak in December due to increased demand.
- Older Singles/Couples are the highest-spending customer group.
- Budget-conscious customers buy more frequently but spend less per transaction.
- 175g packs are the most popular.

#### ✓ **Trial Store Analysis (Task 2):**

- Stores 86 & 88 showed significant sales growth → Trial was successful.
- Store 77 did not show measurable impact → Requires further evaluation.
- T-test confirmed statistical significance in Stores 86 & 88.

### Final Business Recommendations

- ✓ **Expand** the trial layout changes to stores similar to **86 & 88**.
- ✓ **Reassess** the approach in **Store 77** and investigate why it did not perform well.
  - ✓ **Monitor** long-term impact before full-scale rollout.
- ✓ **Continue analyzing** customer buying behavior to refine future strategies.