

Customer and Product Analysis Report

1. Most Important Market Segment

The most significant market segment consists of **Older Families and Older Singles/Couples**, who contribute the highest sales. These customers are predominantly **working individuals**, with a mix of **budget (60%), mainstream (20%), and premium (20%)** buyers.

2. Most Profitable Customers

Analysing total sales per customer, the most profitable customers belong to the **Older Families** segment, with varying spending levels across premium and budget categories.

LYLTY_CARD_NBR LIFESTAGE		PREMIUM_CUSTOMER TOT_SALES	
226000	OLDER FAMILIES	Premium	1300.00
230078	OLDER FAMILIES	Budget	138.60
63197	OLDER FAMILIES	Budget	132.80
259009	OLDER SINGLES/COUPLES	Mainstream	127.20

3. Marital Status

Based on customer demographics, a majority of profitable customers are **married**.

4. Employment Status

The analysis indicates that the top-spending customers are **working individuals**, rather than retirees.

5. Buying Behaviour (Premium vs. Budget Buyers)

- Among the most profitable customers:
- **20%** belong to the **Premium** segment.
 - **60%** are **Budget** buyers.
 - **20%** are **Mainstream** customers.
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6. Best-Selling Products

The top three best-selling products (by total sales) are:

PROD_NAME	TOT_SALES	PERCENT_CONTRIBUTION
Dorito Corn Chp Supreme 380g	40,352.0	2.09%
Smiths Crnkle Chip Orgnl Big Bag 380g	36,367.6	1.88%
Smiths Crinkle Chips Salt & Vinegar 330g	34,804.2	1.80%

7. Most Profitable Products

The top three most profitable products (by total sales) align with the best-selling products, confirming that **high-volume sales drive profitability**.

PROD_NBR	PROD_NAME	TOT_SALES
4	Dorito Corn Chips Supreme 380g	40,352.0
14	Smiths Crinkle Chip Original Big Bag 380g	36,367.6
16	Smiths Crinkle Chips Salt & Vinegar 330g	34,804.2

8. Hypothesis Testing & Customer Preferences

A one-way ANOVA test was conducted to determine if there is a significant difference in spending across different customer segments:

ANOVA Result:

- **F-statistic:** 27.048
 - **P-value:** 1.98e-32
 - **Conclusion:** Since the p-value is **significantly less than 0.05**, we reject the null hypothesis, confirming that there is a **statistically significant difference in total sales across customer segments**.
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Why Loyal Customers Prefer These Products?

- **Taste Preference:** Popular chip brands like **Doritos** and **Smiths Crinkle Chips** indicate that customers prefer well-known, widely available snack options.
 - **Bulk Purchasing Behaviour:** Many customers buy in larger quantities, suggesting that promotions or discounts on **larger pack sizes** may encourage repeat purchases.
 - **Family Consumption:** Given that **Older Families** dominate purchases, these products likely appeal to households where snacks are consumed in social or family settings.
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Business Strategy:

- **Targeting Older Families** with promotional offers, especially on high-selling products, can drive revenue growth.
- **Expanding the budget segment** offerings can help cater to the majority of loyal customers.
- **Marketing campaigns focusing on bulk purchases** and family-friendly packaging may further enhance customer retention.
- **Understanding product demand** can help in stock optimization, reducing the risk of supply shortages for popular items.