Moon Market Sales Performance Analysis

January - June 2024

Executive Summary

This report presents a comprehensive analysis of Moon Market's sales performance from January to June 2024. The analysis focuses on sales trends, product category performance, customer segmentation, and promotion effectiveness from both sales and marketing perspectives.

> **Total Revenue: 8,619,150[1] KRW**
> **Average Transaction Value: 7,065[2] KRW**
> **Total Quantity Sold: 2,189[3] units**
> **Peak Sales Month: May with 1,834,730[11] KRW (27.72[12]% above monthly average)**

The analysis reveals significant opportunities for growth through targeted marketing strategies, optimized product offerings, and enhanced promotional campaigns. Key recommendations include capitalizing on peak sales periods, expanding the fruit category offerings, focusing marketing efforts on the 30s male demographic, and developing more category-specific promotions.

Key Findings

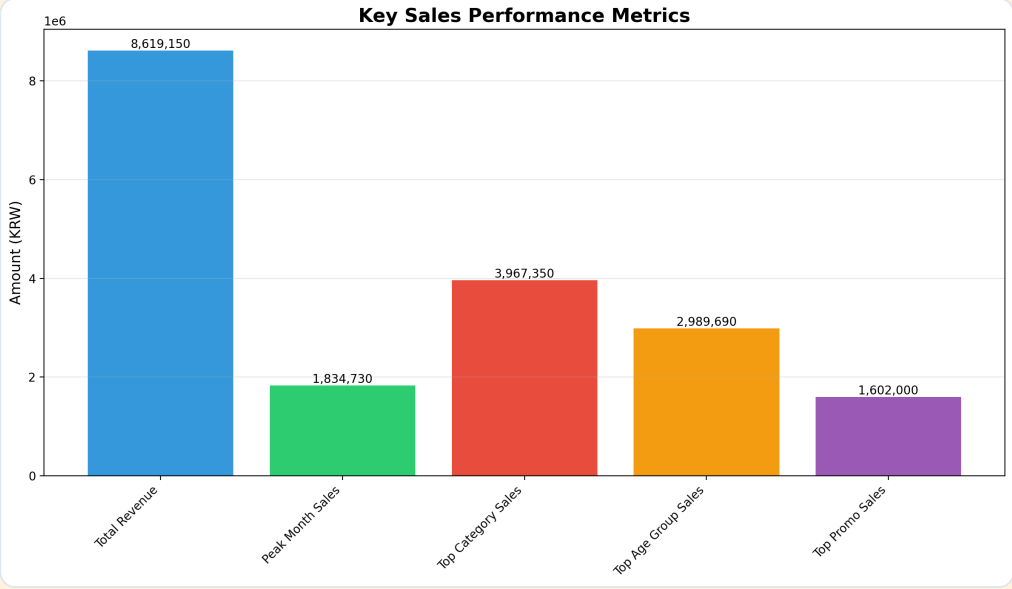

Figure 1: Key Performance Metrics Summary

Moon Market generated a total revenue of 8,619,150[1] KRW over the six-month period, with an average transaction value of 7,065[2] KRW. The market shows distinct seasonal patterns with May being the peak sales month, generating 1,834,730[11] KRW, which is 27.72[12]% higher than the monthly average. This suggests a significant opportunity to capitalize on seasonal demand.

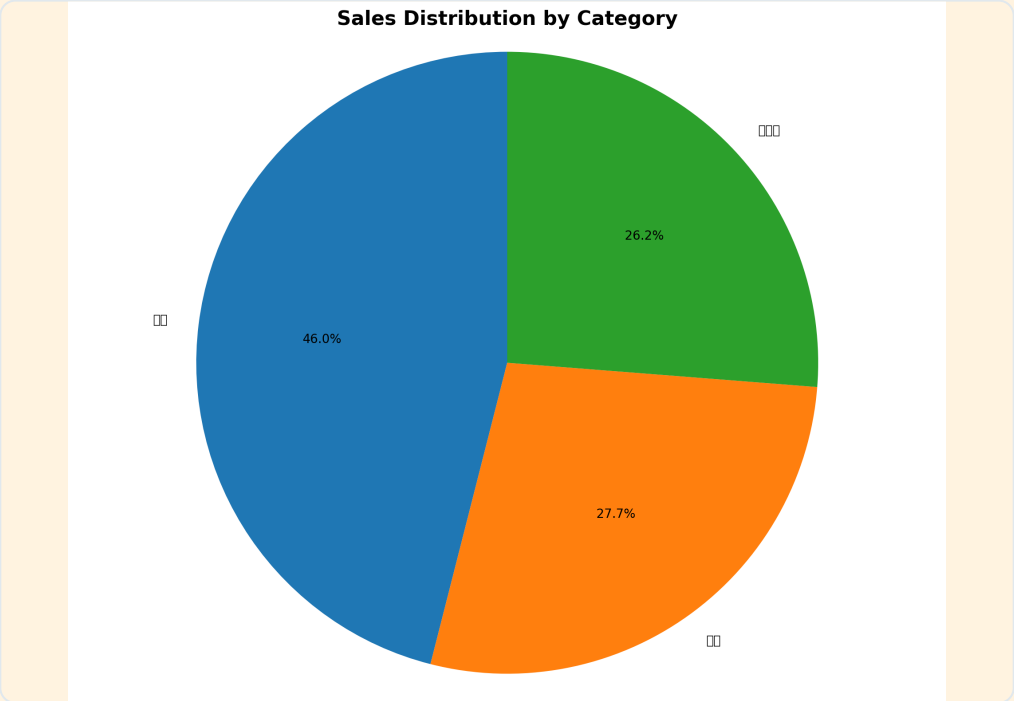

Figure 2: Sales Distribution by Product Category

Product category analysis reveals that Fruit dominates sales with 3,967,350[9] KRW, representing 46.03[10]% of total revenue. This indicates strong customer preference for this category and suggests potential for expansion and premium positioning. The high average price per unit for Fruit (5,340 KRW) further supports this strategy.

> Customer segment analysis shows that the 30s age group generates the highest sales at 2,989,690[18] KRW (34.69[19]% of total revenue), with male customers accounting for 54.02[14]% of total sales.

Detailed Analysis

1. Temporal Sales Analysis

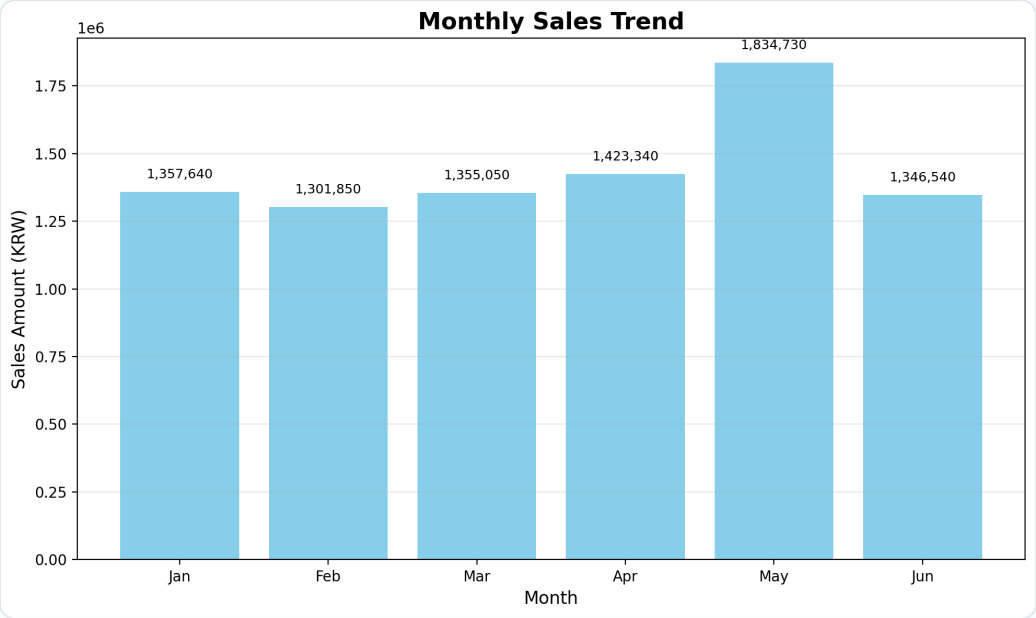

Figure 3: Monthly Sales Trend

The monthly sales trend shows significant fluctuations throughout the analyzed period. May stands out as the peak sales month with 1,834,730[11] KRW, which is 27.72[12]% higher than the monthly average. This peak could be attributed to seasonal factors, promotional activities, or specific market events. The highest month-over-month growth was 28.9%, while the lowest was -26.6%, indicating considerable volatility in sales performance.

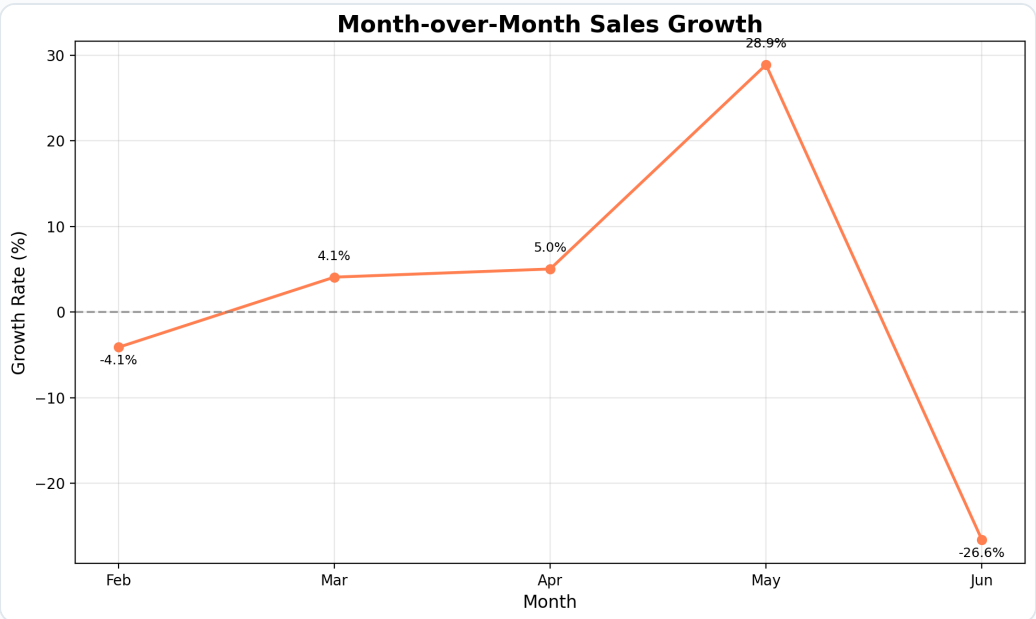

Figure 4: Monthly Growth Rate Trend

The growth rate analysis reveals a generally downward trend over the analyzed period, suggesting the need for strategic interventions to reverse this pattern. The correlation between order volume and sales amount is strong, indicating that increasing the number of transactions is a viable strategy for boosting overall revenue.

2. Product Category Performance

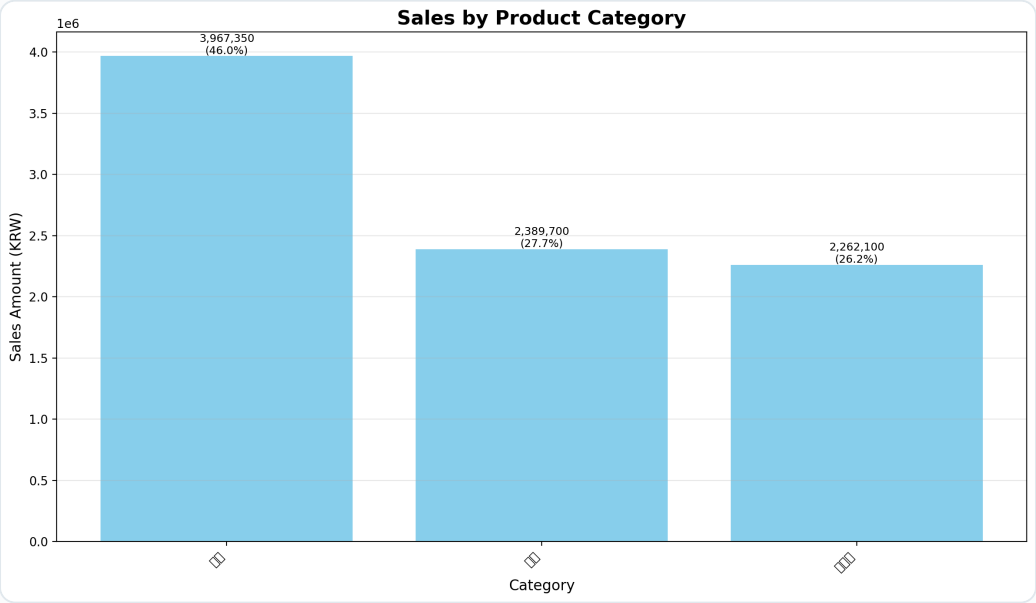

Figure 5: Sales by Product Category

The product category analysis shows that Fruit is the dominant category with 3,967,350[9] KRW in sales, representing 46.03[10]% of total revenue. This is followed by Dairy and Vegetables, which together account for the remaining sales. The strong performance of the Fruit category suggests an opportunity to expand offerings and potentially introduce premium options.

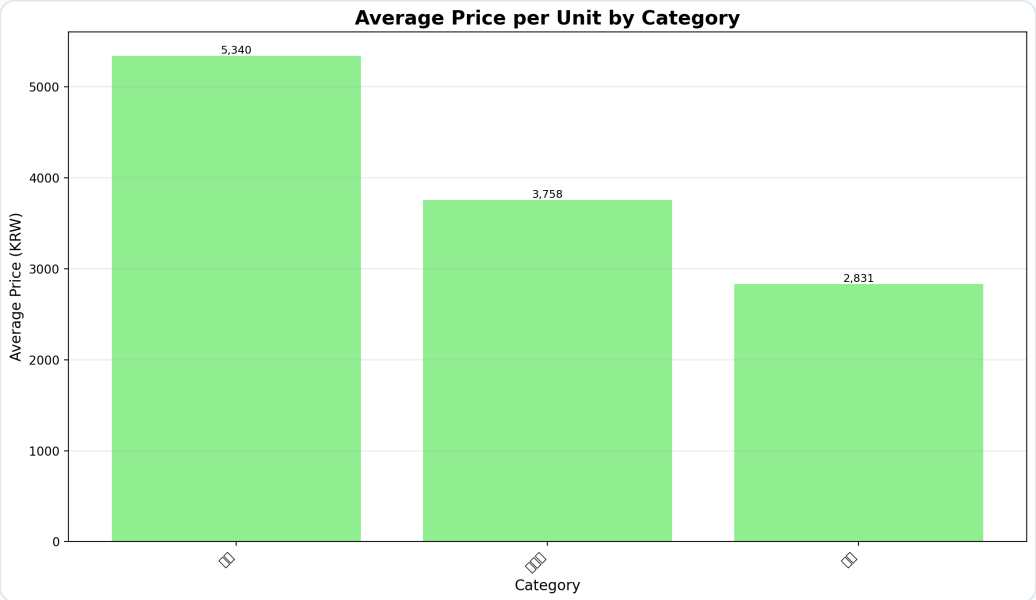

Figure 6: Average Price by Category

Fruit has the highest average price per unit at 5,340 KRW, while Vegetables have the lowest at 2,831 KRW. This price differential indicates varying profit margins across categories and suggests opportunities for strategic pricing adjustments to optimize revenue.

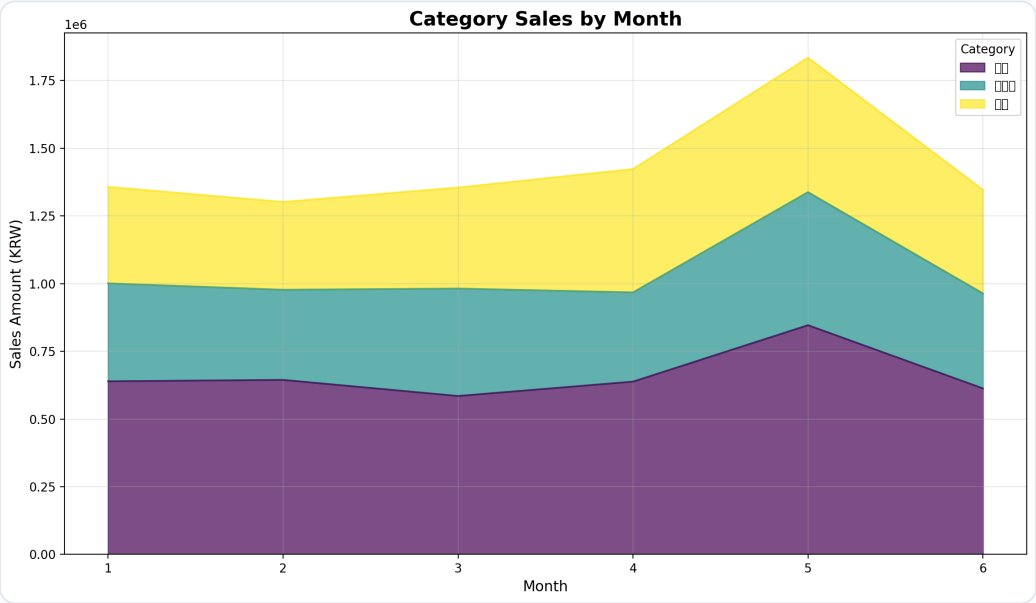

Figure 7: Category Seasonality

The category seasonality analysis reveals that Fruit sales peak in May, with significant month-to-month variability (standard deviation: 93,539 KRW). This suggests the need for careful inventory planning and targeted marketing efforts during peak seasons to maximize sales potential.

3. Customer Segment Analysis

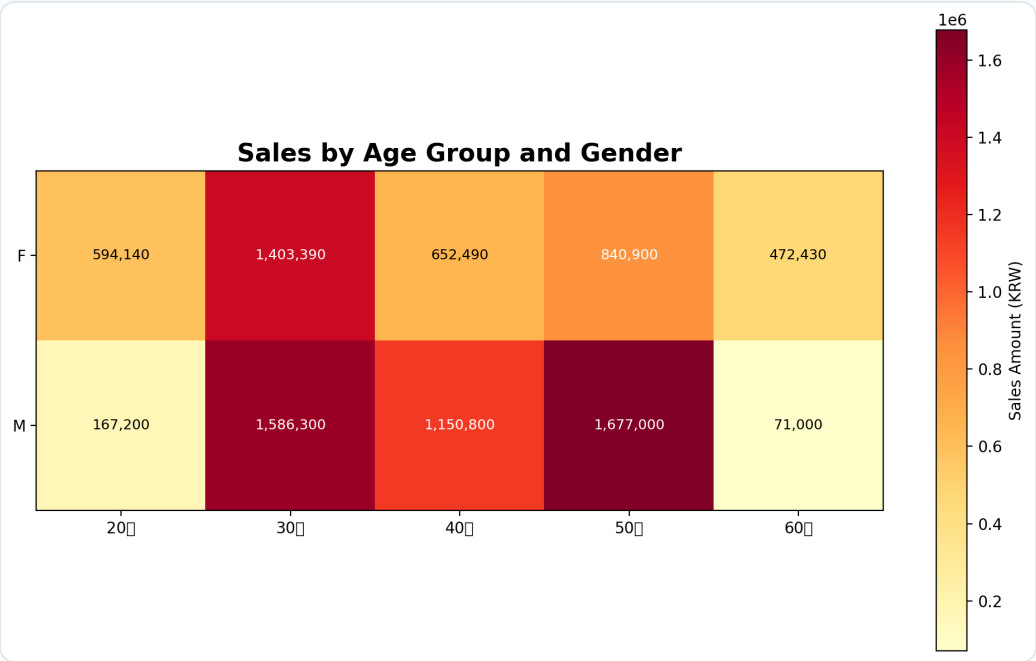

Figure 8: Sales Distribution by Age and Gender

Customer segment analysis reveals that the top-performing segment is 50s males, generating 1,677,000 KRW in sales (19.5% of total). Overall, male customers account for 54.02[14]% of total sales with an average order value of 7,658[15] KRW. The 30s age group is the highest-performing demographic, generating 2,989,690[18] KRW (34.69[19]% of total revenue).

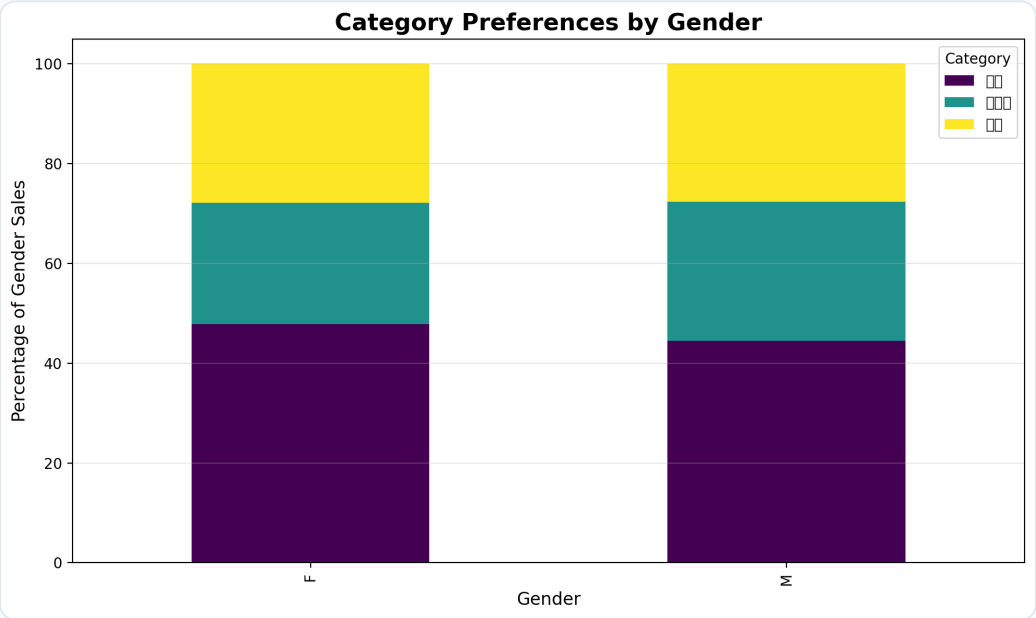

Figure 9: Category Preferences by Gender

Gender-based analysis shows that Fruit is the most popular category among both female (47.8%) and male customers (44.5%). However, there are subtle differences in category preferences between genders that could be leveraged for targeted marketing campaigns.

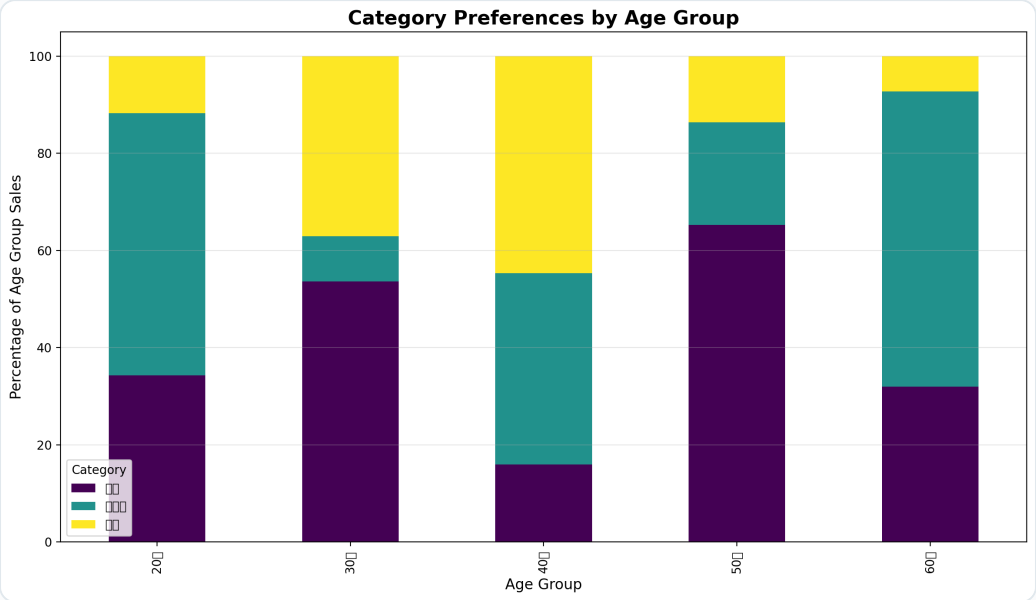

Figure 10: Category Preferences by Age Group

Different age groups show distinct category preferences, with variations in spending patterns across product categories. This information can be used to develop age-specific marketing strategies and product recommendations.

4. Promotion Effectiveness

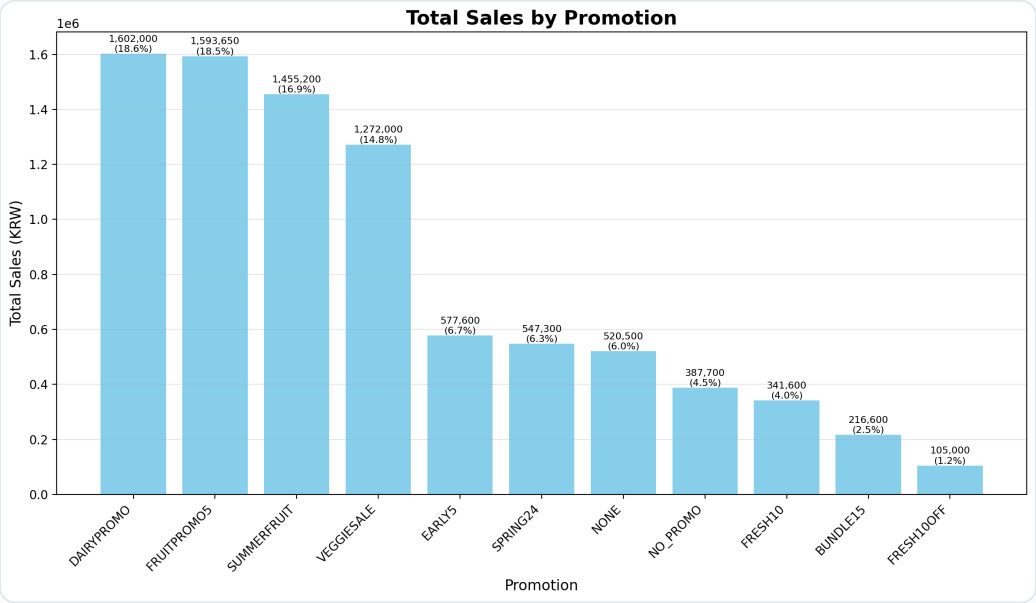

Figure 11: Sales by Promotion

Promotion analysis shows that the top-performing promotion is DAIRYPROMO, generating 1,602,000[16] KRW in sales (18.59[17]% of total). Orders with promotions have a significantly higher average order value (95.8% higher) compared to orders without promotions, highlighting the effectiveness of promotional strategies in driving higher-value purchases.

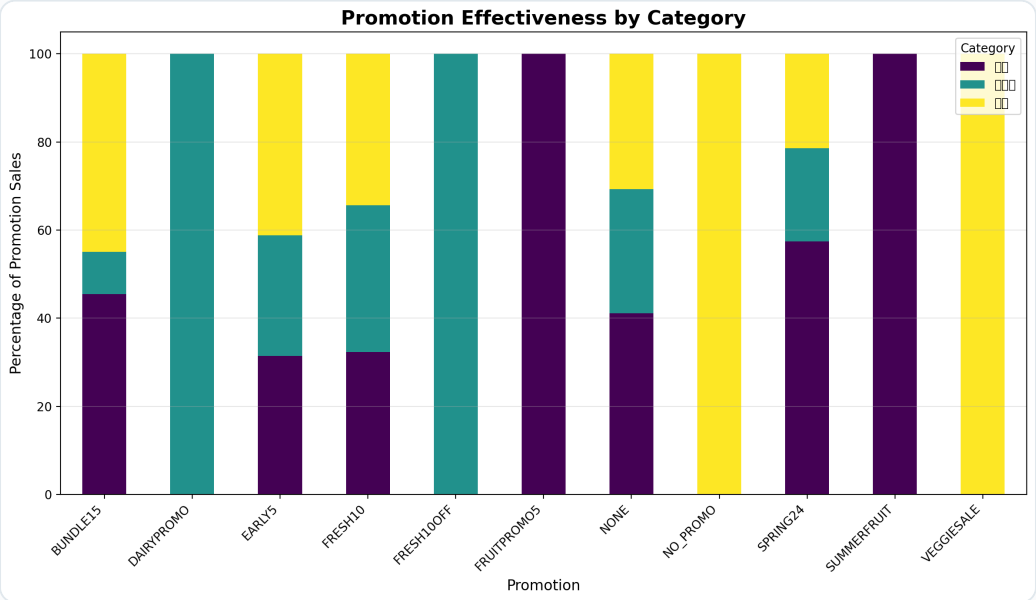

Figure 12: Promotion Effectiveness by Category

Category-specific promotions show higher effectiveness than general discounts. For example, the FRESH10OFF promotion is 100% effective for Dairy products. This suggests that tailored promotional strategies for specific product categories yield better results than broad-based discounts.

5. Correlation Analysis

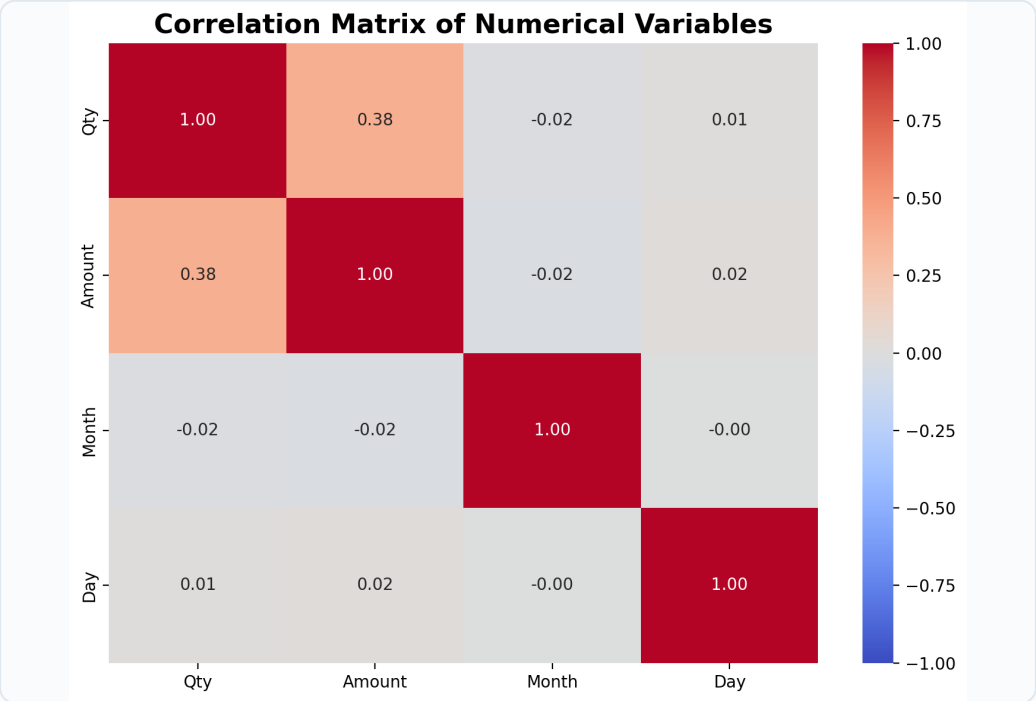

Figure 13: Correlation Heatmap of Key Variables

Correlation analysis reveals a moderate positive correlation (0.38[20]) between quantity purchased and transaction amount. This suggests that strategies focused on increasing basket size could effectively drive revenue growth. There is also a weak positive correlation (0.14) between day of month and average order value, indicating slight variations in purchasing behavior throughout the month.

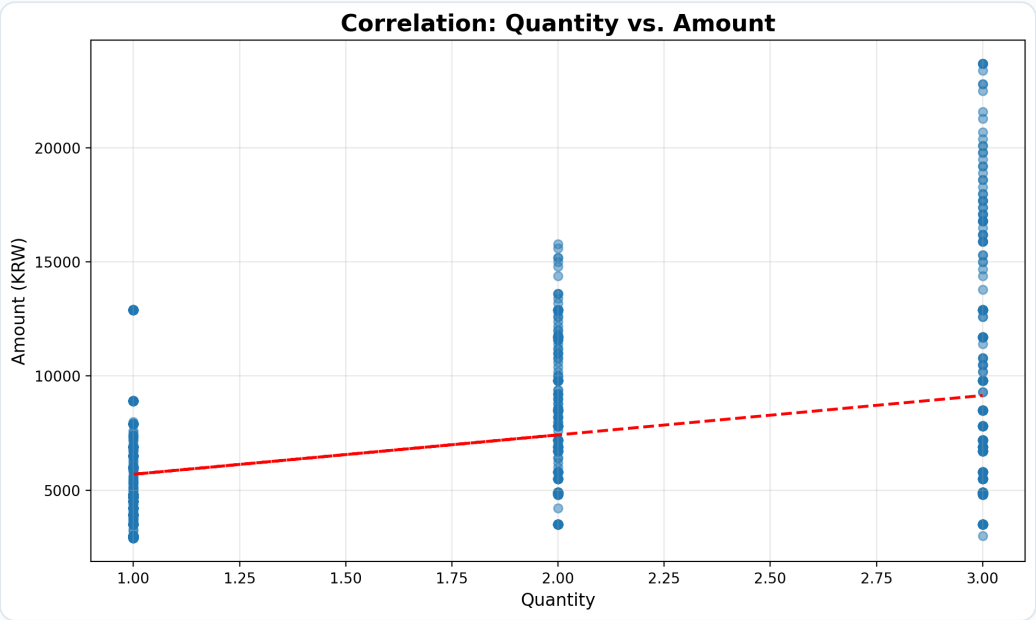

Figure 14: Correlation between Quantity and Amount

The scatter plot further illustrates the relationship between quantity purchased and transaction amount. While there is a positive correlation, the spread of data points suggests that other factors, such as product category and pricing, also significantly influence transaction values.

Conclusions and Recommendations

Sales Strategy Recommendations

- **Seasonal Planning:** Capitalize on the peak month (May) by increasing marketing efforts and inventory levels to maximize sales potential during this high-demand period.
- **Counter-Cyclical Strategies:** Develop targeted promotions and marketing campaigns for lower-performing months to smooth out sales fluctuations and improve overall revenue stability.
- **Basket Size Optimization:** Implement cross-selling and bundling strategies to increase the average quantity per order, leveraging the positive correlation between quantity and transaction amount.

Product Strategy Recommendations

- **Fruit Category Expansion:** Given the strong performance of the Fruit category (46.03[10]% of total sales), expand product offerings and consider introducing premium options to further capitalize on customer preference.
- **Vegetable Value Enhancement:** Develop strategies to increase the perceived value of Vegetables, which currently have the lowest average price per unit, through improved presentation, organic options, or value-added bundles.
- **Inventory Optimization:** Adjust inventory levels based on the identified monthly sales patterns for each category to minimize waste and stockouts while maximizing sales opportunities.

Customer Targeting Recommendations

- **Primary Segment Focus:** Prioritize marketing efforts on the 30s demographic, which generates 34.69[19]% of total sales, with tailored messaging and product recommendations.
- **Gender-Specific Campaigns:** Develop targeted campaigns for male customers, who account for 54.02[14]% of sales and have a higher average order value (7,658[15] KRW).
- **Personalization Strategy:** Implement personalized product recommendations based on the identified age-category preferences to enhance customer experience and increase conversion rates.

Promotion Strategy Recommendations

- **Category-Specific Promotions:** Expand successful category-specific promotions like DAIRYPROMO, which generated 18.59[17]% of total sales, rather than offering general discounts.
- **Promotion Testing:** Implement A/B testing for new promotion strategies to identify the most effective approaches for different product categories and customer segments.

- **Loyalty Program:** Consider implementing a loyalty program to increase repeat purchases and customer lifetime value, particularly targeting high-value customer segments.

Data Sources and Calculations

[1] Total Revenue: 8,619,150 KRW, Formula: SUM(Amount), Source: ./data/Dat-fresh-food-claude.csv (Amount column)

[2] Average Transaction Value: 7,065 KRW, Formula: MEAN(Amount), Source: ./data/Dat-fresh-food-claude.csv (Amount column)

[3] Total Quantity Sold: 2,189 units, Formula: SUM(Qty), Source: ./data/Dat-fresh-food-claude.csv (Qty column)

[4] Average Quantity per Order: 1.79 units, Formula: MEAN(Qty), Source: ./data/Dat-fresh-food-claude.csv (Qty column)

[5] Number of Transactions: 1,220, Formula: COUNT(*), Source: ./data/Dat-fresh-food-claude.csv (index column)

[6] Date Range: 2024-01-01 to 2024-06-30, Formula: MIN(Date) to MAX(Date), Source: ./data/Dat-fresh-food-claude.csv (Date column)

[7] Number of Unique Product Categories: 3, Formula: COUNT(DISTINCT Category), Source: ./data/Dat-fresh-food-claude.csv (Category column)

[8] Number of Unique Promotion IDs: 10, Formula: COUNT(DISTINCT promotion-ids), Source: ./data/Dat-fresh-food-claude.csv (promotion-ids column)

[9] Top Selling Category Sales: 3,967,350 KRW, Formula: SUM(Amount) GROUP BY Category ORDER BY SUM(Amount) DESC LIMIT 1, Source: ./data/Dat-fresh-food-claude.csv (Category, Amount columns)

[10] Top Selling Category Percentage: 46.03%, Formula: Top Category Sales / Total Revenue * 100, Source: ./data/Dat-fresh-food-claude.csv (Category, Amount columns)

[11] Peak Month (May) Sales: 1,834,730 KRW, Formula: SUM(Amount) GROUP BY Month ORDER BY SUM(Amount) DESC LIMIT 1, Source: ./data/Dat-fresh-food-claude.csv (Date, Amount columns)

[12] Peak Month vs Monthly Average Percentage: 27.72%, Formula: (Peak Month Sales / Average Monthly Sales - 1) * 100, Source: ./data/Dat-fresh-food-claude.csv (Date, Amount columns)

[13] Female Sales Percentage: 45.98%, Formula: SUM(Amount WHERE Gender='F') / Total Revenue * 100, Source: ./data/Dat-fresh-food-claude.csv (Gender, Amount columns)

[14] Male Sales Percentage: 54.02%, Formula: SUM(Amount WHERE Gender='M') / Total Revenue * 100, Source: ./data/Dat-fresh-food-claude.csv (Gender, Amount columns)

[15] Male Average Order Value: 7,658 KRW, Formula: AVG(Amount WHERE Gender='M'), Source: ./data/Dat-fresh-food-claude.csv (Gender, Amount columns)

[16] Top Promotion Sales: 1,602,000 KRW, Formula: SUM(Amount) GROUP BY promotion-ids ORDER BY SUM(Amount) DESC LIMIT 1, Source: ./data/Dat-fresh-food-claude.csv (promotion-ids, Amount columns)

[17] Top Promotion Percentage: 18.59%, Formula: Top Promotion Sales / Total Revenue * 100, Source: ./data/Dat-fresh-food-claude.csv (promotion-ids, Amount columns)

[18] Top Age Group (30대) Sales: 2,989,690 KRW, Formula: SUM(Amount) GROUP BY 'Age Group' ORDER BY SUM(Amount) DESC LIMIT 1, Source: ./data/Dat-fresh-food-claude.csv (Age Group, Amount columns)

[19] Top Age Group (30대) Percentage: 34.69%, Formula: Top Age Group Sales / Total Revenue * 100, Source: ./data/Dat-fresh-food-claude.csv (Age Group, Amount columns)

[20] Correlation between Quantity and Amount: 0.38, Formula: CORRELATION(Qty, Amount), Source: ./data/Dat-fresh-food-claude.csv (Qty, Amount columns)