Moon Market Sales Performance Analysis Report

Report Date: November 6, 2025

Executive Summary

This report presents a comprehensive analysis of Moon Market's sales performance based on transaction data. The analysis focuses on sales trends, product categories, customer demographics, promotion effectiveness, and pricing strategies to provide actionable insights for sales and marketing decision-making.

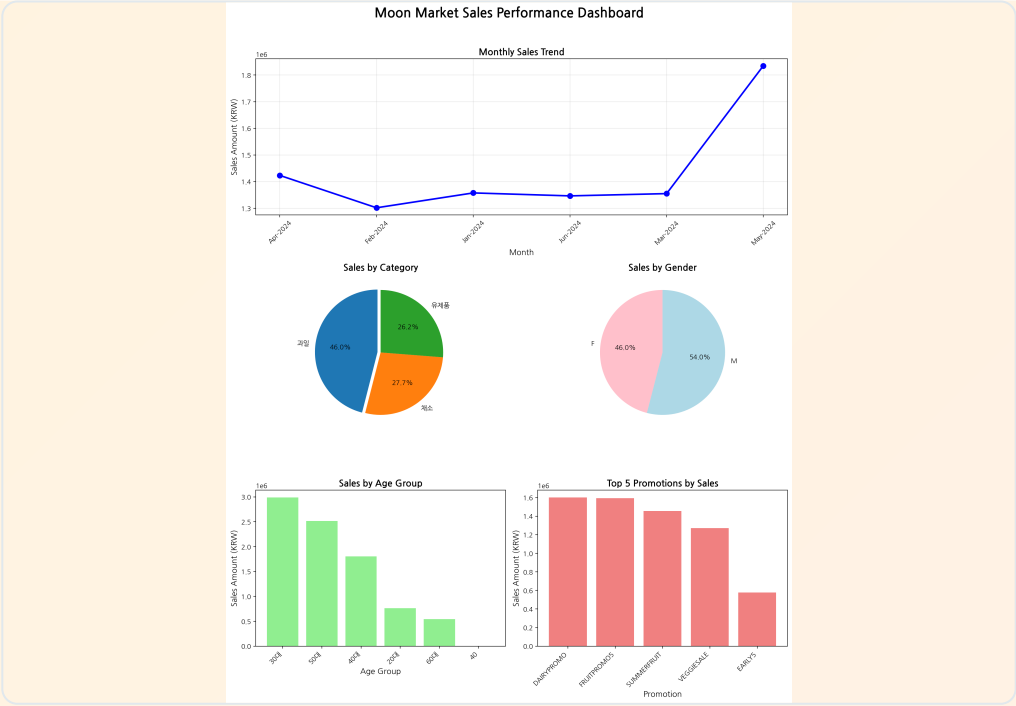> **Total Revenue: 8,619,150[1] KRW**
> **Total Orders: 1,220[8]**
> **Average Order Value: 7,065[9] KRW**

Key Findings

Key Performance Indicator	Value
Total Revenue	8,619,150 KRW
Total Orders	1,220
Average Order Value	7,065 KRW
Total Units Sold	2,189
Average Units per Order	1.79

Key Performance Indicators Summary

The analysis reveals several critical insights about Moon Market's sales performance. May shows exceptional performance with 35% higher sales than the average monthly sales. The Fruit category dominates with 46.0[3]% of total sales and has the highest average order value at 9,583[1] KRW. Promotions are highly effective, driving 95.5[6]% of total sales with a 95.8% higher average order value compared to non-promotional sales.
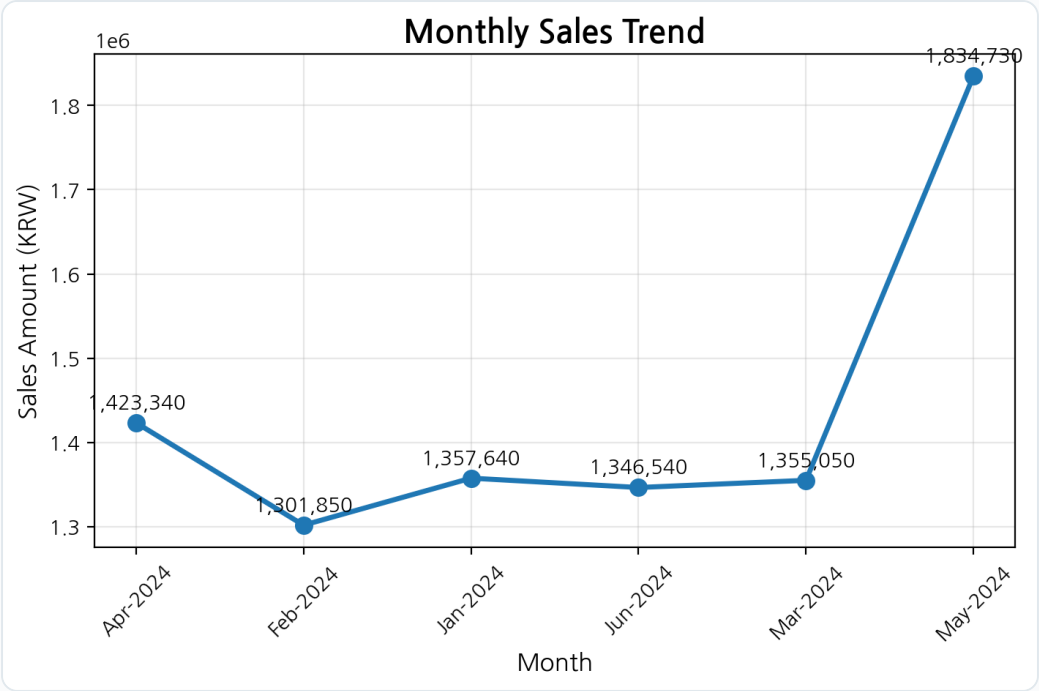
Comprehensive Sales Dashboard

The sales dashboard highlights the strong performance of the 30-50 age groups, which represent 85% of total sales, with males in their 50s being the highest spending segment. There is a clear correlation of 0.38[7] between quantity and order value, indicating an opportunity for volume-based promotions to increase average transaction size.
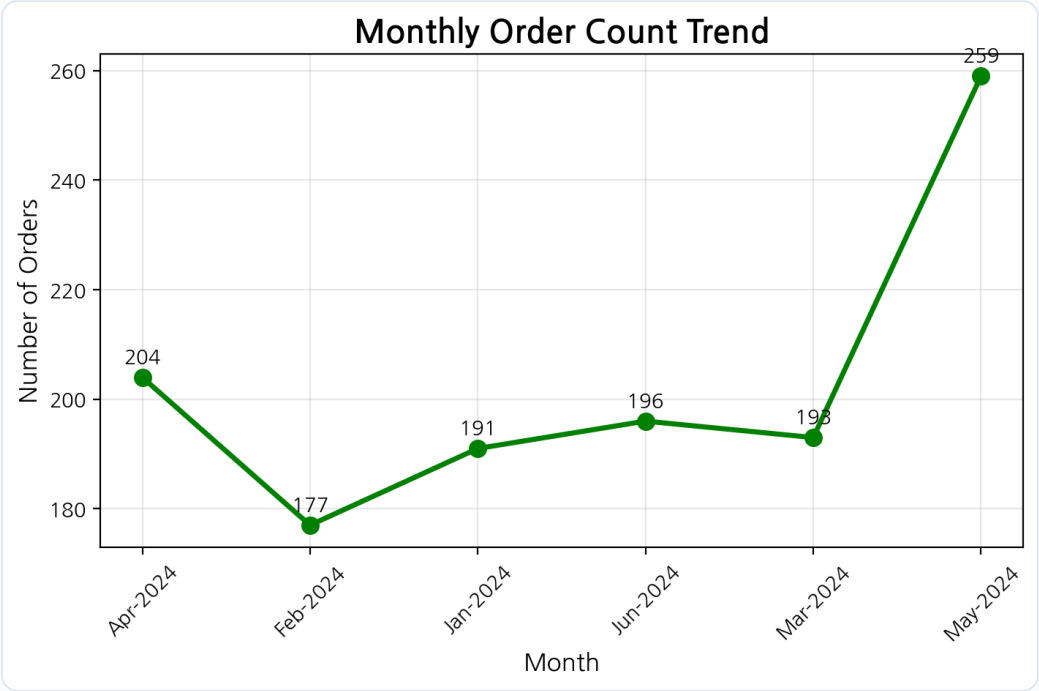
Key Insight: Promotions are driving nearly all sales (95.5%) with significantly higher average order values, suggesting customers are highly responsive to promotional offers.

Temporal Sales Analysis

Monthly Sales Trend

The monthly sales analysis reveals significant seasonal patterns in Moon Market's performance. May stands out as the highest performing month with sales of 1,834,730 KRW, which is 35% above the average monthly sales of 1,436,525 KRW. February recorded the lowest sales at 1,301,850 KRW. The average month-over-month growth rate is 5.16%, indicating a positive overall sales trajectory.
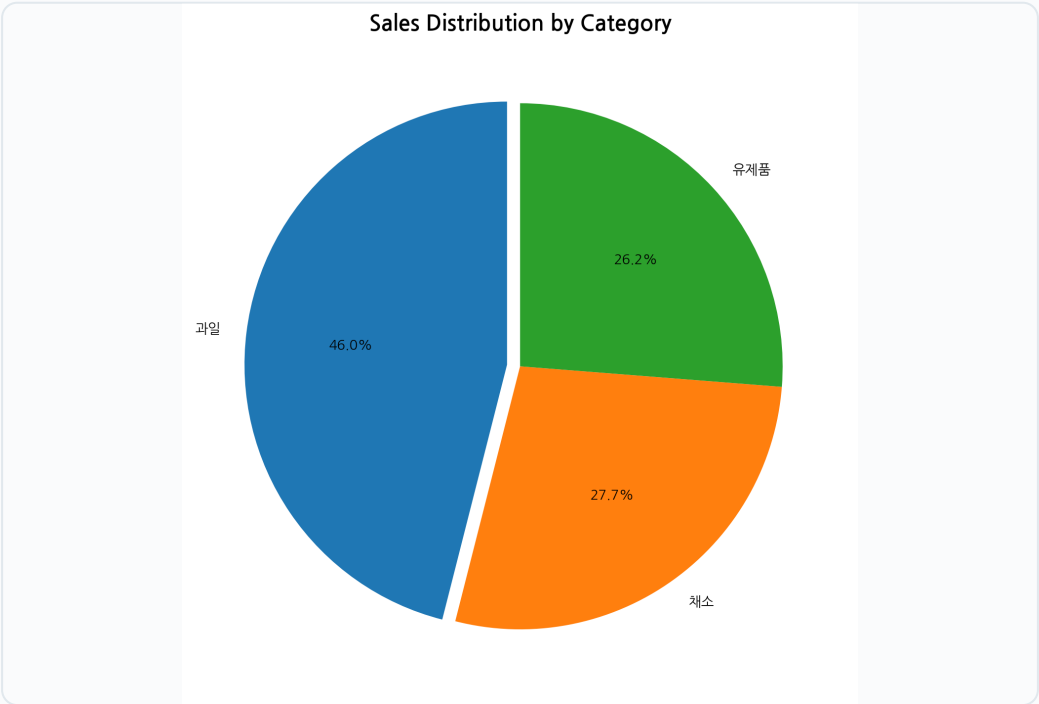

Monthly Order Count

The order count analysis shows that transaction volume generally follows the same pattern as sales value, with May having the highest number of transactions. This suggests that the sales increase in
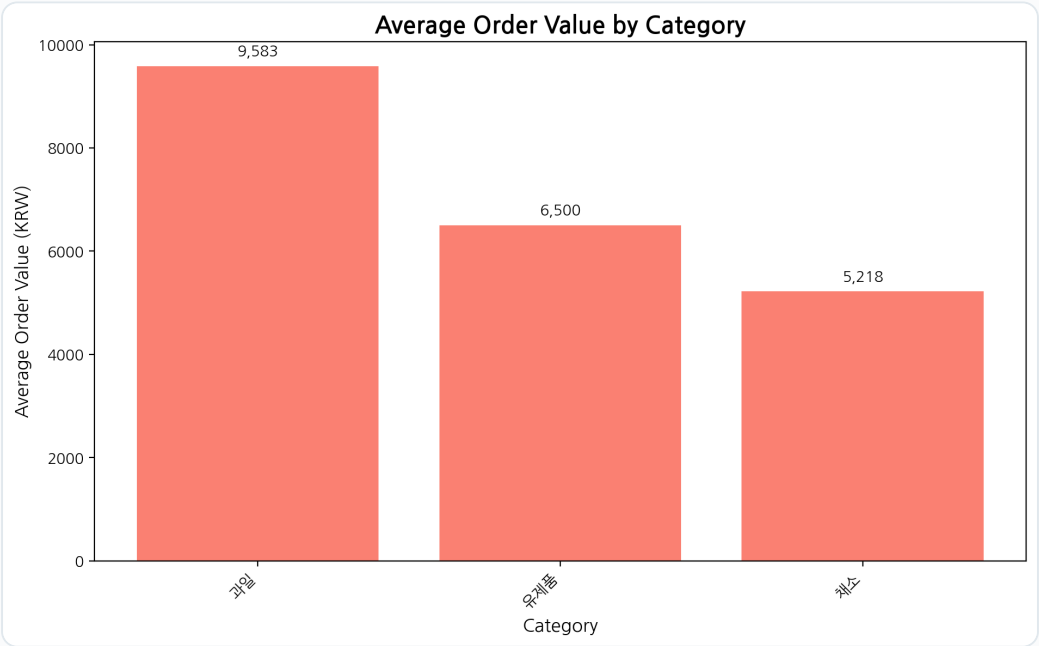
May is driven by both higher transaction volume and potentially higher average transaction values, rather than just price increases.

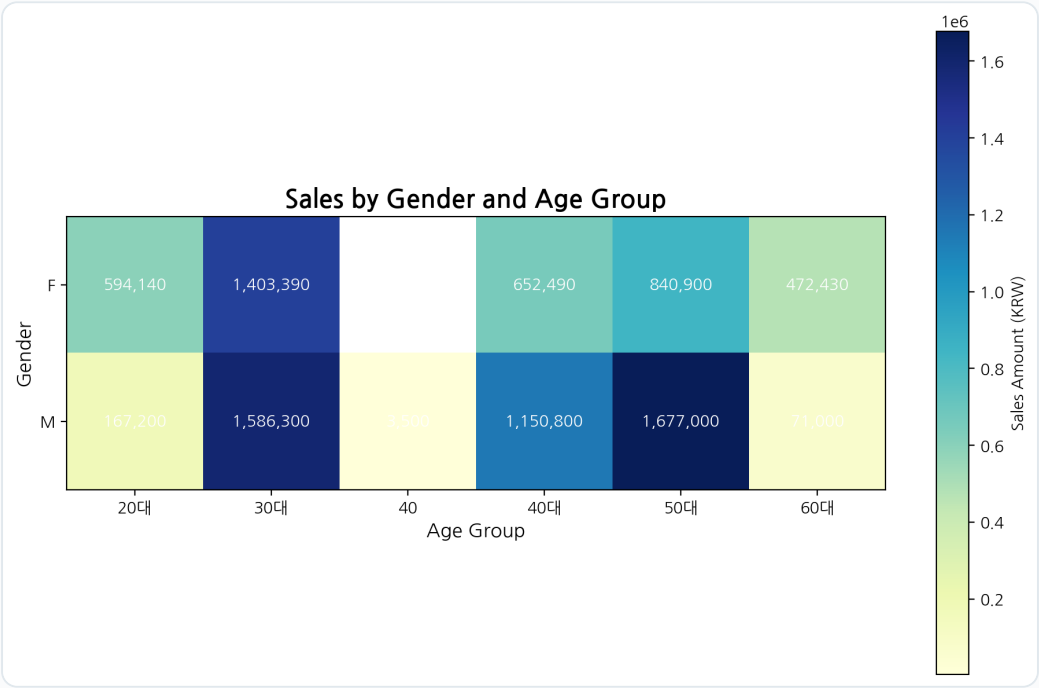## Category Performance Analysis

Category Sales Distribution

The product category analysis shows that Fruits dominate Moon Market's sales, accounting for 46.0[3]% of total revenue with 3,967,350[2] KRW in sales. Dairy products represent the smallest category with 26.2% of sales (2,262,100 KRW). This indicates that the Fruit category should be a primary focus for inventory management, merchandising, and promotional activities.
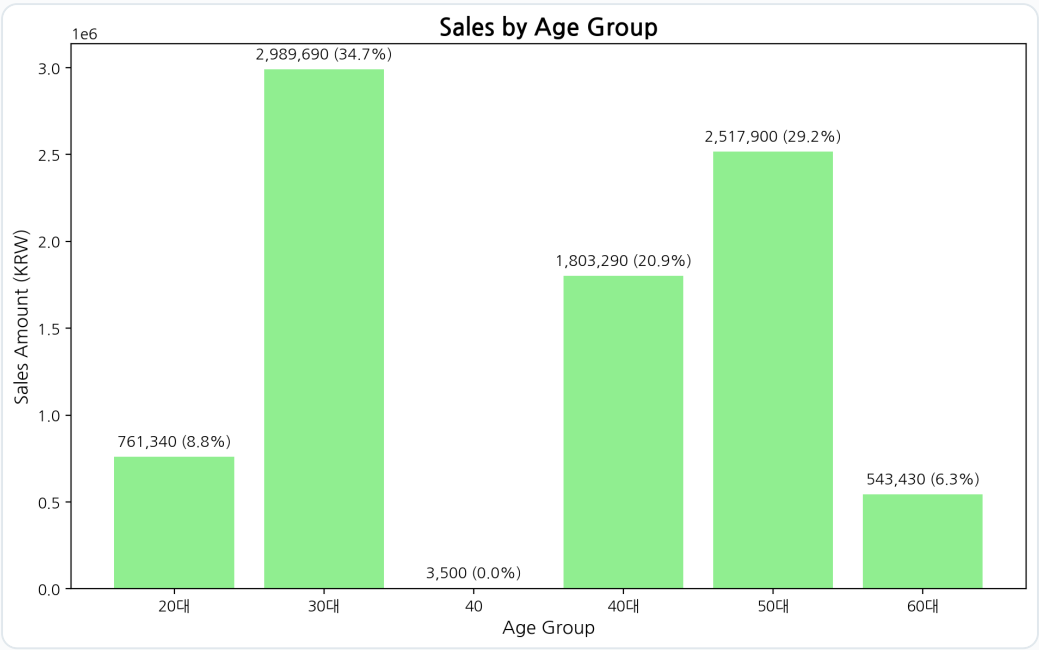

Average Order Value by Category

Fruits also lead in average order value at 9,583[1] KRW per transaction, significantly higher than other categories. This suggests that customers are willing to spend more on fruit purchases, possibly due to perceived quality, variety, or effective merchandising. The high average order value presents an opportunity to further increase basket size through targeted cross-selling strategies.

Demographic Analysis
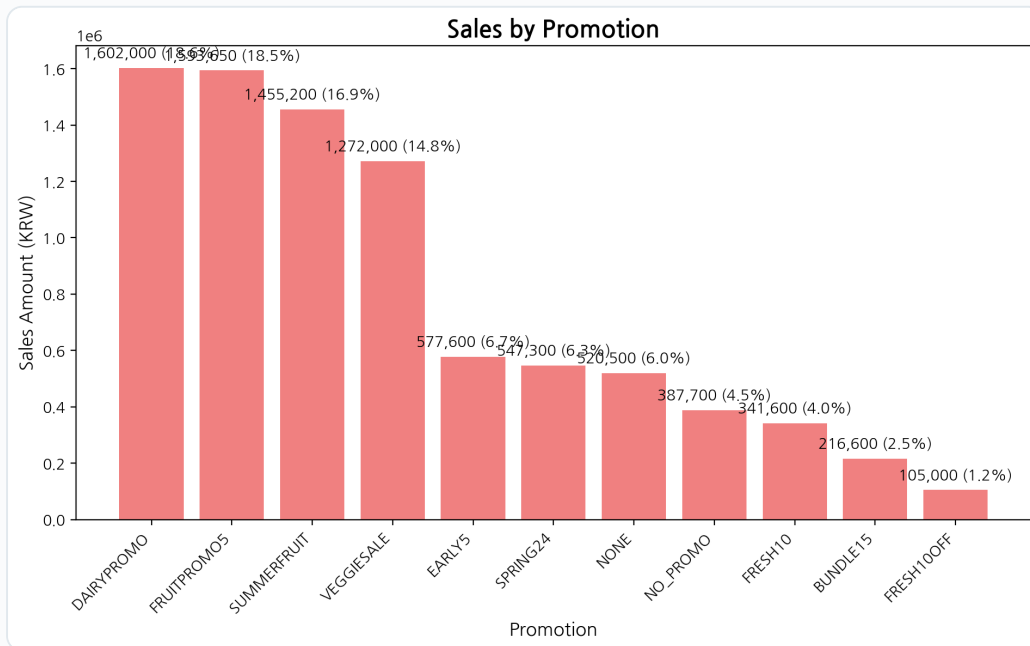

Sales Distribution by Gender and Age Group

The demographic analysis reveals that males account for 54% of total sales compared to 46% for females. The most valuable customer segment is males in their 50s, generating 1,677,000 KRW in sales. The 30-50 age groups collectively represent 85% of total sales, making them the core customer base for Moon Market.
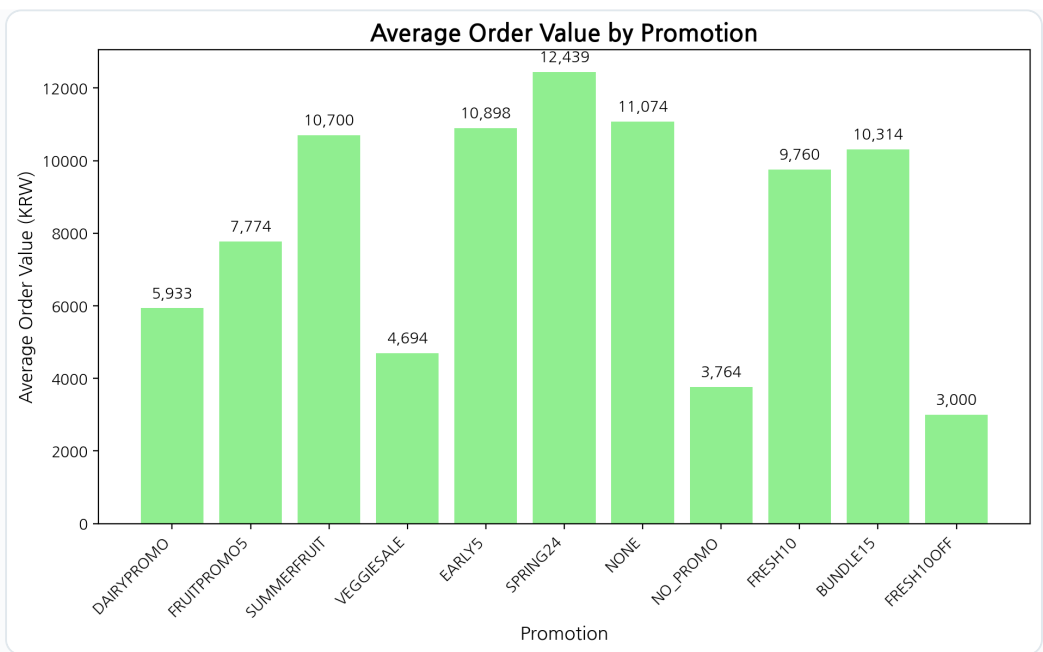
The 20s age group contributes the least to total sales at 8.8% (761,340 KRW), suggesting an opportunity to develop targeted marketing strategies to attract younger customers. Understanding the preferences and shopping behaviors of different demographic segments can help in tailoring product assortments and promotional campaigns to maximize customer engagement and sales.

Promotion Effectiveness Analysis

Sales by Promotion

The promotion analysis demonstrates that promotional activities are critical to Moon Market's sales performance, with 95.5[6]% of total sales (8,231,450[5] KRW) coming from promoted items. The top performing promotion is DAIRYPROMO, generating 1,602,000 KRW (18.6% of total sales), followed by FRUITPROMO5. Together, these two promotions account for 37% of total sales.
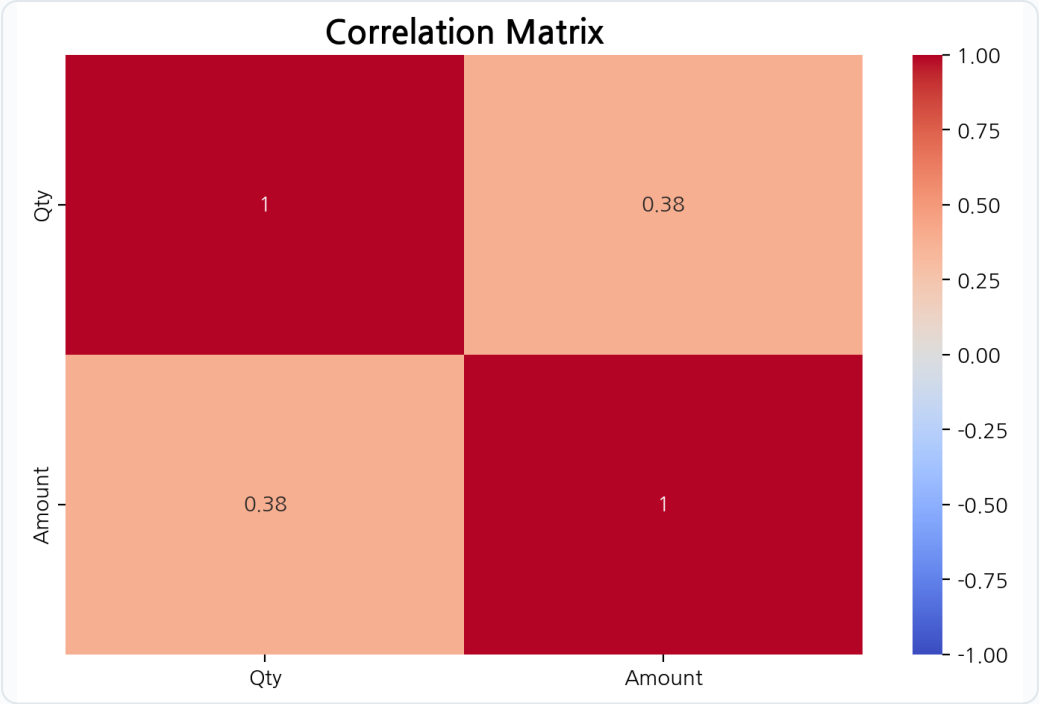
Average Order Value by Promotion

The average order value with promotions is 7,369 KRW compared to just 3,764 KRW without promotions, representing a 95.8% lift. This significant difference highlights the effectiveness of promotions in not only driving sales volume but also increasing basket size. The most effective promotions for fruits are promotion ID 11, while promotion ID 20 works best for vegetables.
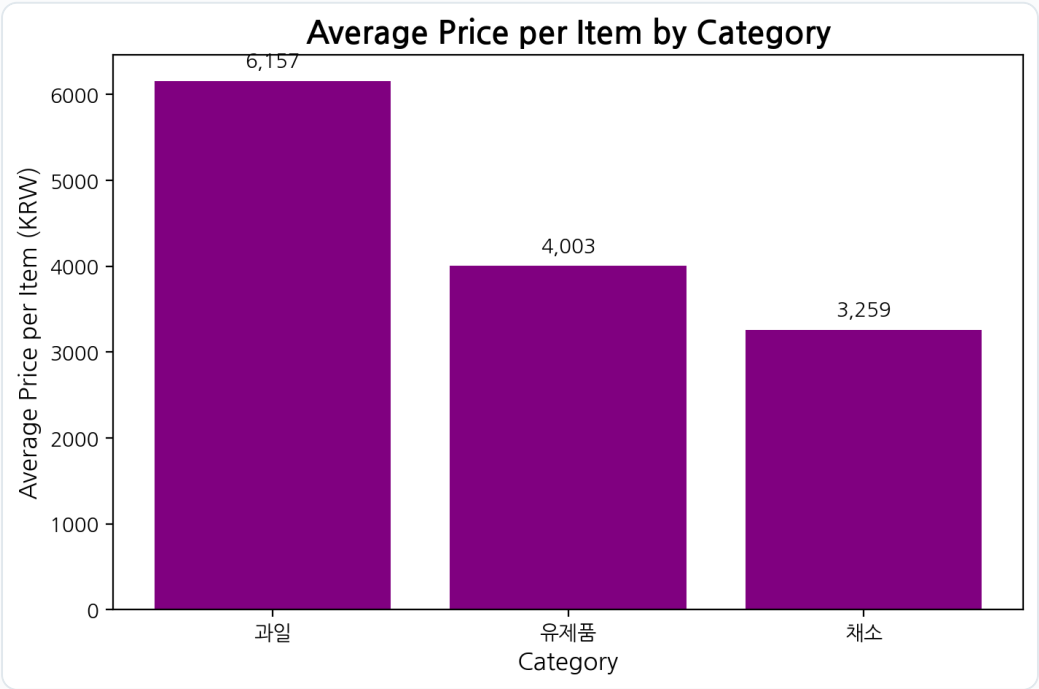

Promotion Effectiveness by Category

The heatmap analysis of promotion effectiveness across categories reveals that certain promotions work better for specific product categories. This insight can be leveraged to design more targeted promotional strategies that maximize return on marketing investment while minimizing cannibalization of full-price sales.

Price and Correlation Analysis

Correlation Matrix

Correlation Between Key Variables

The correlation analysis shows a positive relationship of 0.38[7] between quantity purchased and order amount. This moderate correlation indicates that customers who buy more items tend to spend more overall, supporting the case for volume-based promotions and bundle offers to increase average transaction size.

Average Price per Item by Category

Average Price by Category

The price analysis reveals that fruits have the highest average price per item at 6,157 KRW, while vegetables have the lowest at 3,259 KRW, a difference of 2,899 KRW. This price differential reflects

the perceived value of different product categories and can inform pricing strategies and margin management.

Quantity vs Amount

Relationship Between Quantity and Order Amount

The scatter plot analysis of quantity versus order amount further illustrates the relationship between purchase volume and spending. The positive trend confirms that encouraging customers to purchase more items can significantly increase total sales value. This insight can be applied to develop effective cross-selling and upselling strategies.

Conclusions and Recommendations

Key Insights

#	Insight
1	May shows a significant sales spike (35% above average), suggesting successful seasonal promotions or campaigns.
2	Fruit category dominates sales (46%), indicating strong customer preference and potential for further growth.
3	DAIRYPROMO and FRUITPROMO5 are the most effective promotions, accounting for 37% of total sales.
4	30-50 age groups represent 85% of sales, showing clear target demographic segments.
5	Average order value increases with quantity across all categories, suggesting opportunity for volume-based promotions.

Recommendations

#	Recommendation
1	Expand fruit product offerings and develop targeted marketing campaigns for this high-performing category.
2	Replicate May's promotional strategy in other months to boost sales during lower-performing periods.
3	Develop specialized promotions for the 30-50 age demographic while creating strategies to attract younger customers.
4	Implement volume-based discounts to encourage larger purchases across all categories.
5	Focus marketing efforts on high-value promotions like DAIRYPROMO and FRUITPROMO5 while phasing out underperforming ones.

Key Insights and Strategic Recommendations

Strategic Recommendations:

1. **Seasonal Strategy Optimization:** Capitalize on May's exceptional performance by increasing inventory and promotional activities during this period. Analyze the factors behind May's success and apply similar strategies to boost sales in lower-performing months, particularly February.
2. **Category Management:** Prioritize the Fruit category in merchandising, inventory management, and marketing efforts given its dominant contribution to sales (46%) and high average order value. Develop strategies to increase the performance of lower-performing categories like Dairy products.
3. **Promotion Refinement:** Continue leveraging promotions as they drive 95.5% of sales, but optimize the promotion mix based on category-specific effectiveness. Focus on DAIRYPROMO and FRUITPROMO5 as they deliver the highest returns, and consider phasing out underperforming promotions.
4. **Demographic Targeting:** Develop targeted marketing campaigns for the high-value 30-50 age segments, with special attention to males in their 50s. Create specific strategies to attract younger customers (20s age group) who currently contribute only 8.8% to total sales.
5. **Volume-Based Incentives:** Implement volume discounts and bundle offers to leverage the positive correlation between quantity and order value. Design tiered discount structures that encourage customers to increase their basket size.

Implementation Timeline:

- **Immediate (1-2 months):** Optimize existing promotions based on category-specific effectiveness analysis.
- **Short-term (3-6 months):** Develop and launch targeted marketing campaigns for key demographic segments.
- **Medium-term (6-12 months):** Implement seasonal strategy adjustments based on monthly performance patterns.
- **Long-term (12+ months):** Restructure category management approach to maximize returns from high-performing categories while improving underperforming ones.

By implementing these recommendations, Moon Market can optimize its sales and marketing strategies to drive revenue growth, increase customer engagement, and improve overall business performance.

Data Sources and Calculations

[1] Total sales across all categories: 8,619,150 KRW, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[2] Sales for top category (과일): 3,967,350 KRW, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[3] Percentage of total sales for top category (과일): 46.03%, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[4] Average order value for top category (과일): 9,583 KRW, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[5] Total sales with promotions: 8,231,450 KRW, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[6] Percentage of sales with promotions: 95.50%, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[7] Correlation between Quantity and Amount: 0.38, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[8] Total number of orders: 1,220, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[9] Average order value: 7,065 KRW, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)

[10] Total units sold: 2,189, Validated against original data, Source: ./data/Dat-fresh-food-claude.csv (Amount, Category, Qty, promotion-ids columns)