Perfume Shop Sales Analysis Report

Introduction

This report presents an analysis of sales data from a perfume shop. The dataset comprises 78 observations and includes various metrics related to customer demographics, product prices, discounts, order amounts, and purchasing behavior. The objective of this analysis is to gain insights into customer spending patterns, preferences, and correlations between different variables. The findings will assist the perfume shop in making informed business decisions and optimizing its marketing strategies.

Data Overview

The dataset consists of 78 observations, each containing information about customers' perfume purchases. The key metrics analyzed in this report include:

- Average price of a perfume: $95.97

- Average discount given: 8.14%

- Average order amount: $169.34

- Average age of a customer: 40.86 years

Perfume Price Analysis

The perfume prices in the dataset exhibit a wide range, with the least sold perfume priced at an average of $69 and the most sold perfume priced at an average of $115. This indicates that while price variation exists, it does not seem to significantly impact the overall sales volume. This could suggest that other factors such as scent preference, marketing, and branding play a more substantial role in driving purchasing decisions.

Gender-Based Spending Patterns

An interesting observation is that while females tend to spend less on average per purchase, their cumulative purchasing surpasses that of males. This phenomenon contributes to an increase in the total spending for the female customer group. This finding suggests that the shop may consider tailoring its marketing strategies to appeal to both genders, with a focus on understanding the factors influencing the different spending behaviors.

Customer Age Distribution

The analysis indicates that the average ages of both male and female customers are relatively high (40.86 years), suggesting that the shop caters to a mature customer base. This implies that there might be fewer young customers in the dataset. To attract a broader range of customers, the shop could explore strategies to target younger demographics, such as introducing trendy or youthful fragrances.

Returning Customers

Interestingly, the dataset does not contain any information about returning customers. This might indicate that the shop primarily deals with one-time purchasers. Exploring ways to encourage repeat business, such as loyalty programs or personalized offers, could potentially enhance customer retention.

Correlation Analysis

The correlation coefficient between price and customer age is -0.050830. This weak negative correlation suggests that there is minimal relationship between the price of a perfume and the age of the customer. However, when examining the relationship between customer age and quantity purchased, a positive correlation is observed. As customer age increases, the quantity of perfumes purchased tends to rise. This insight could guide the shop's inventory management and product placement strategies.

Conclusion

In conclusion, the analysis of the perfume shop sales dataset provides valuable insights into customer spending patterns, gender-based purchasing behaviors, age demographics, and correlations between different variables. The shop can use these findings to tailor its marketing strategies, product offerings, and customer engagement initiatives. By focusing on attracting younger customers, exploring strategies to encourage repeat business, and leveraging the observed correlations, the shop can work towards maximizing its sales and optimizing its operations.

[Insert Graph Type: Scatter Plot]

This scatter plot illustrates the correlation between customer age and the quantity of perfumes purchased. Each data point represents an observation in the dataset, and the trend line indicates the positive correlation between these variables.

[Insert Graph Type: Bar Chart]

This bar chart displays the average spending of male and female customers. While females spend less per purchase on average, their cumulative purchasing contributes to a higher total spend compared to males.