

## Market Analysis summary for National Clothing Chain

### Sales and Income Analysis

There is a positive relationship between income and sales. That means when income increases, sales increase by about 78%. This indicates we need to spread our items in high-income states. In addition, we highlight an equation to predict customer income based on their previous sales:  $Y = 0.01X + (-722)$ . We suggest using this formula to distribute the company's items efficiently. Through this equation, we predict the highest customer income, which is Jon Jon, and we suggest creating a royal system for customers with the highest income. However, we conclude the state with the highest income is Colombia, while the worst-performing state in sales is South Dakota. As for income distribution, we see that about 18% have an income range of 50k–79k, and the lowest is within the range of 10k–14k, at 4%. Finally, based on the sales data, the sales performance decreased during the first few months, which are the start of the year. I suggest providing offers to boost sales during this period.

### Product Analysis

Regarding customer feedback on the company's items, the average rating is roughly 3.7. We also noticed there is roughly no relationship between the return rate and the customer rating for a product; the relationship is negative with a 69% correlation. This suggests customers may have other reasons for returning the product, not because it's bad. We suggest sending a survey to customers who return products to better understand the product features. However, based on ratings, the best-performing product is the Wool Scarf, while the worst is the Button Shirt. Finally, the recommended product rate for the three exact items the leather bag, shirt, and sweater is 4%, 30.5%, and 66%, respectively. Additionally, the dashboard tracks in-stock products and the return rate for an overview.