

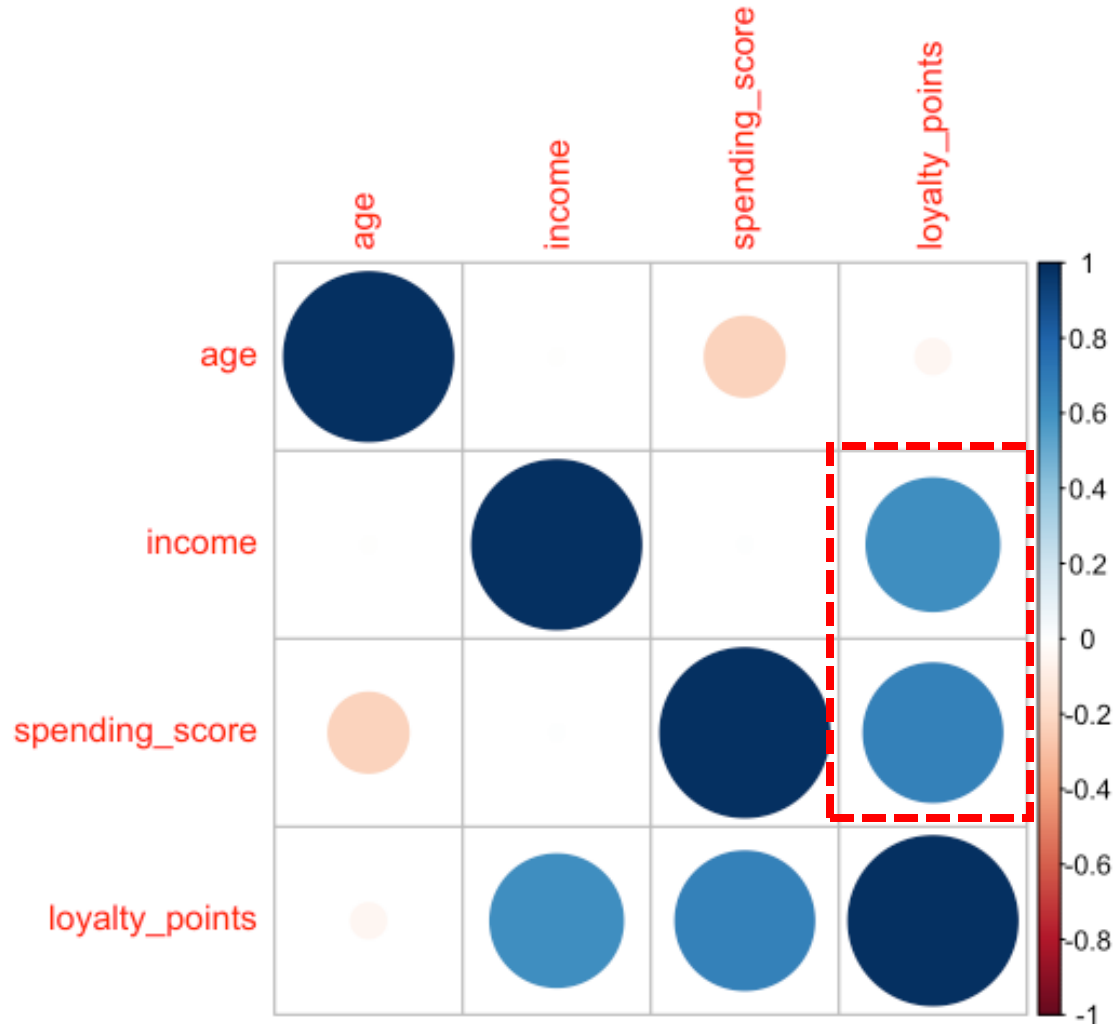
Advanced Analytics to Improve Sales at Turtle Games



Key Questions

1. Which customer details best predict the number of loyalty points they accumulate?
2. How can customers be grouped for targeted marketing to improve sales?
3. How can customer reviews inform marketing campaigns to improve sales?
4. Is the loyalty points data suitable for predictive modeling?

Income and spending score are correlated with loyalty points.

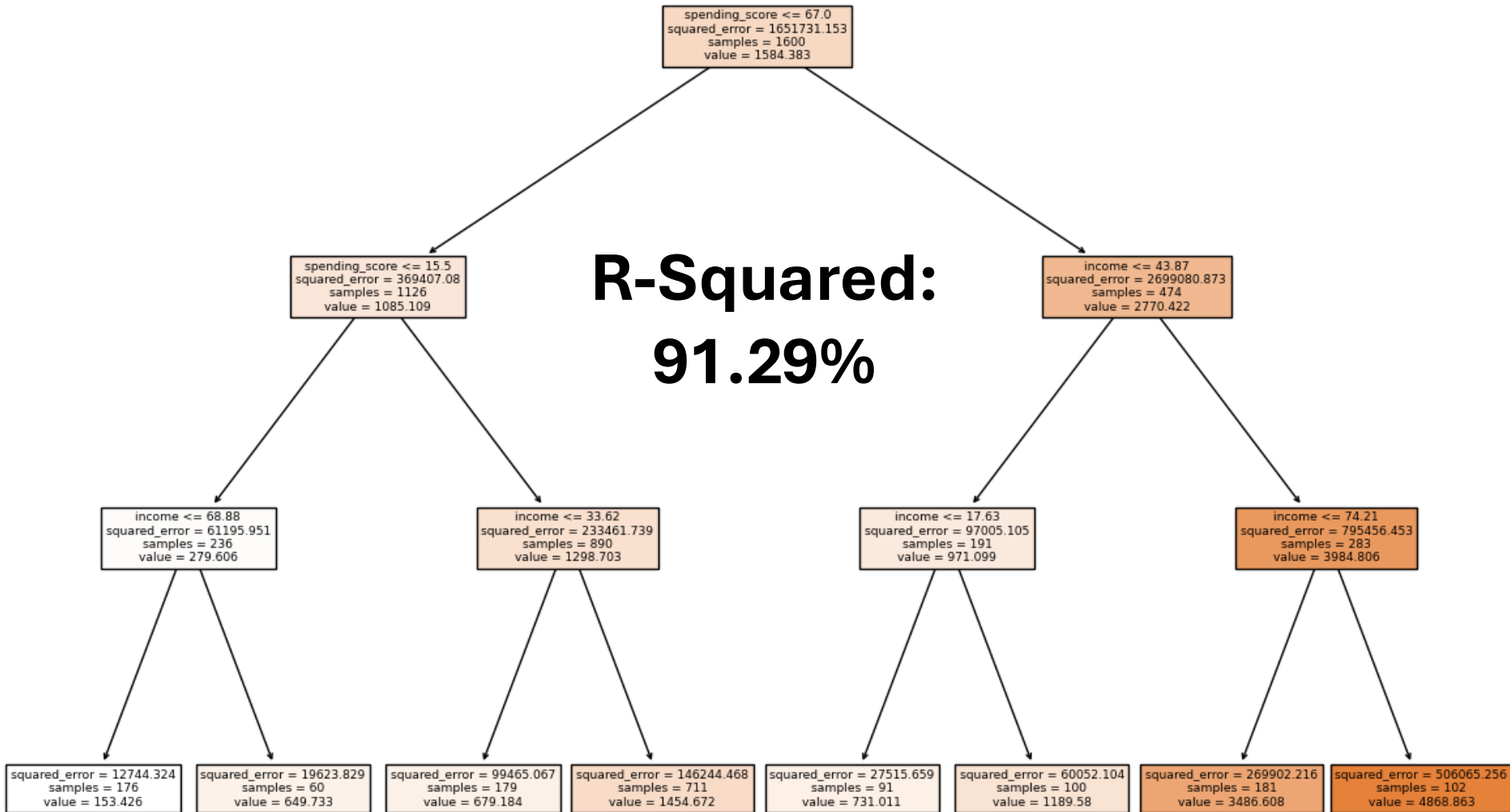


A multiple linear regression is a good predictive model.

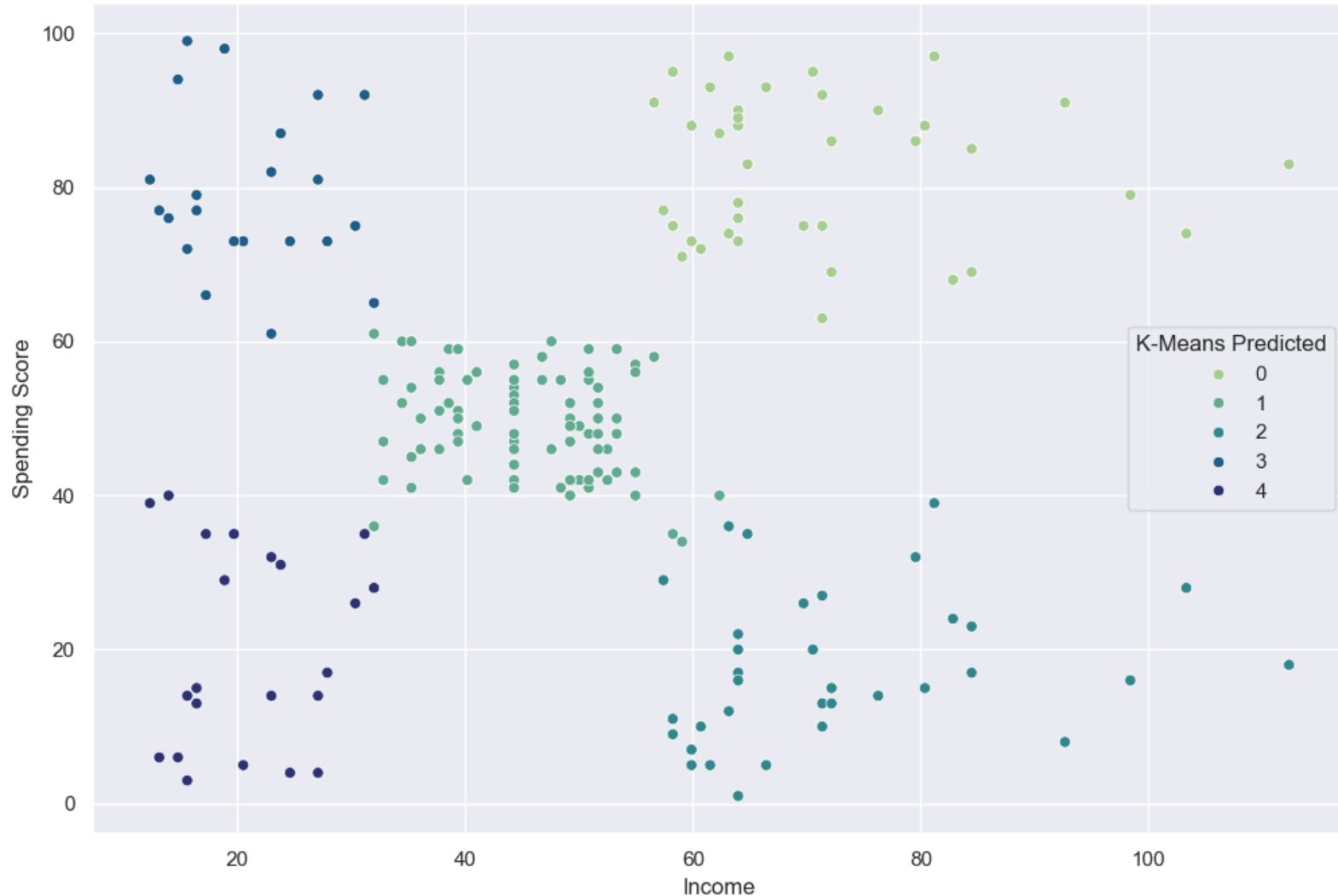
Predictor Variables	R-squared
Income	31.79%
Spending Score	46.64%
Income and Spending Score	81.44%
Age, Income, and Spending Score	82.91%

A decision tree regression is an even better predictive model.

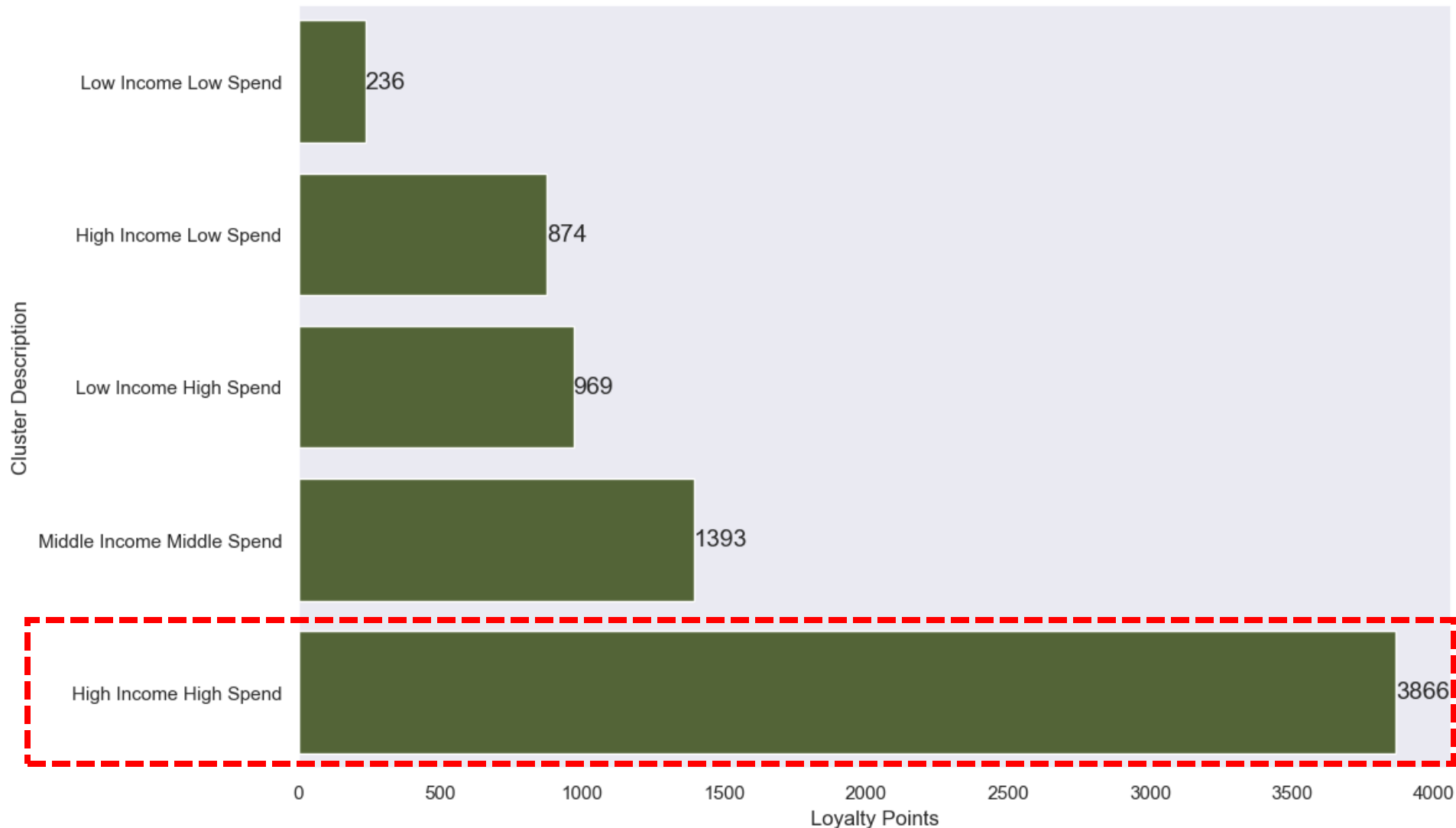
**R-Squared:
91.29%**



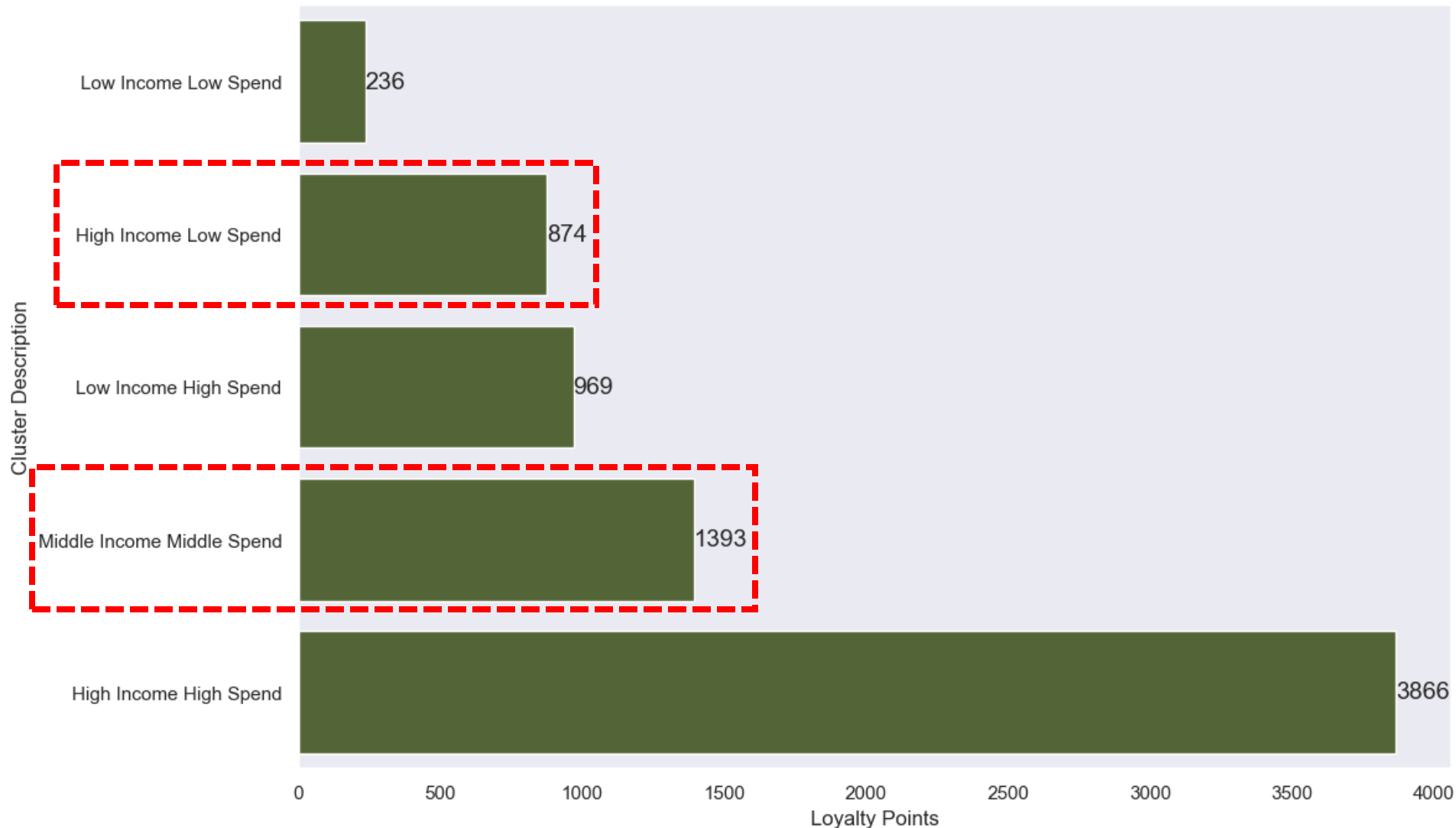
Customers fall into groups by income and spending score.



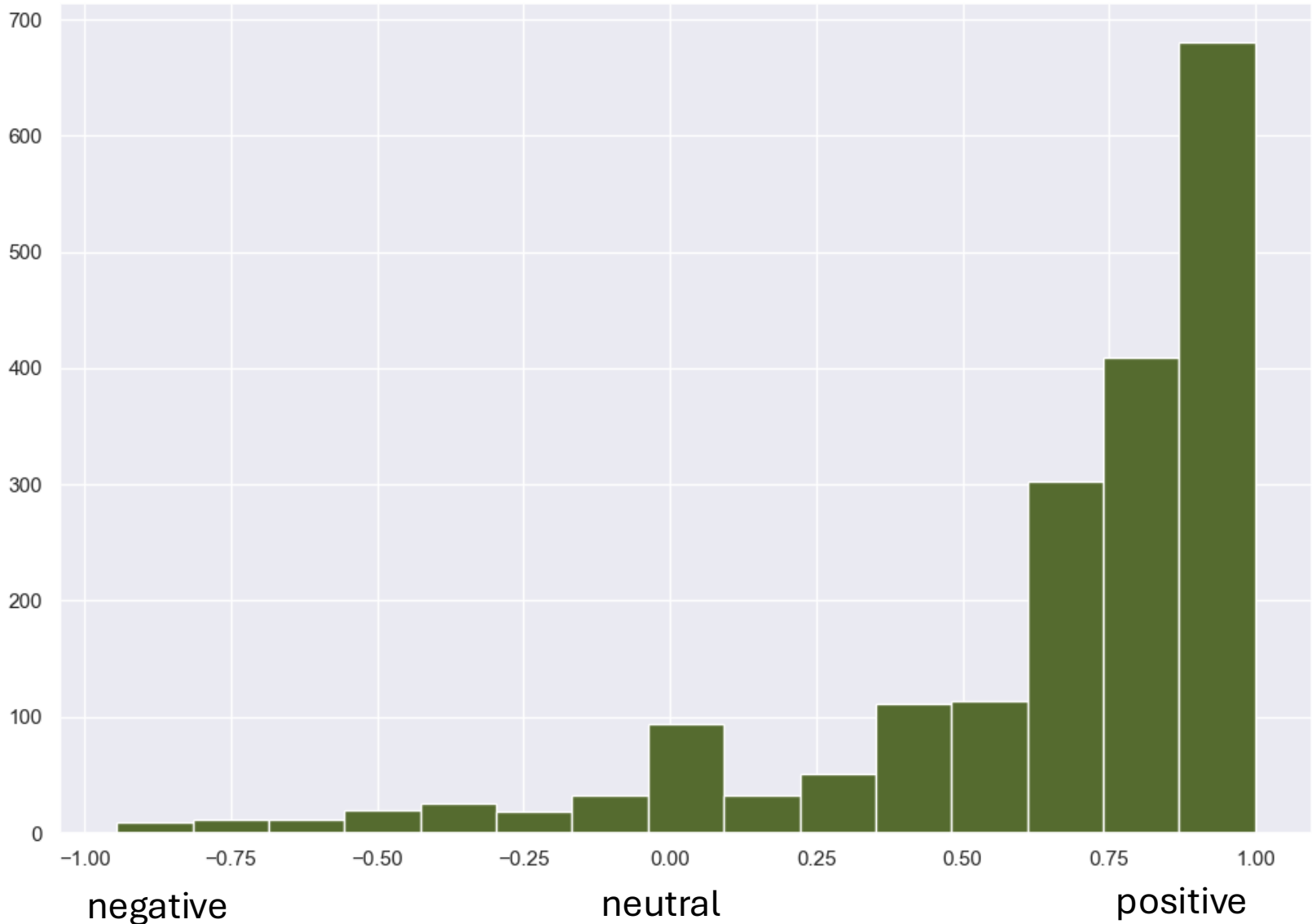
High-income, high-spending customers earn the most points.



But other mid-to-high income customers could drive sales growth.

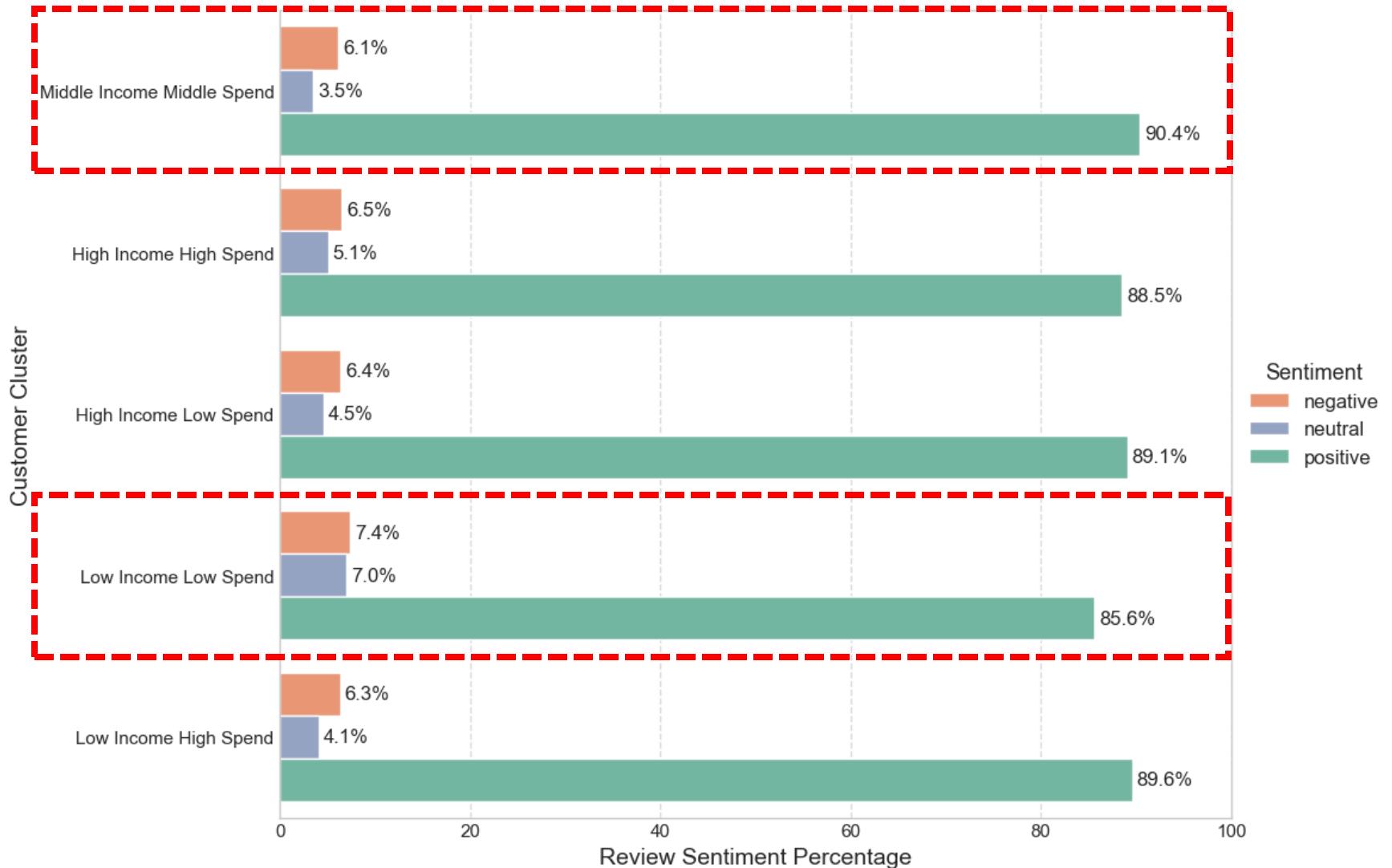


The overall sentiment of customer reviews is positive.

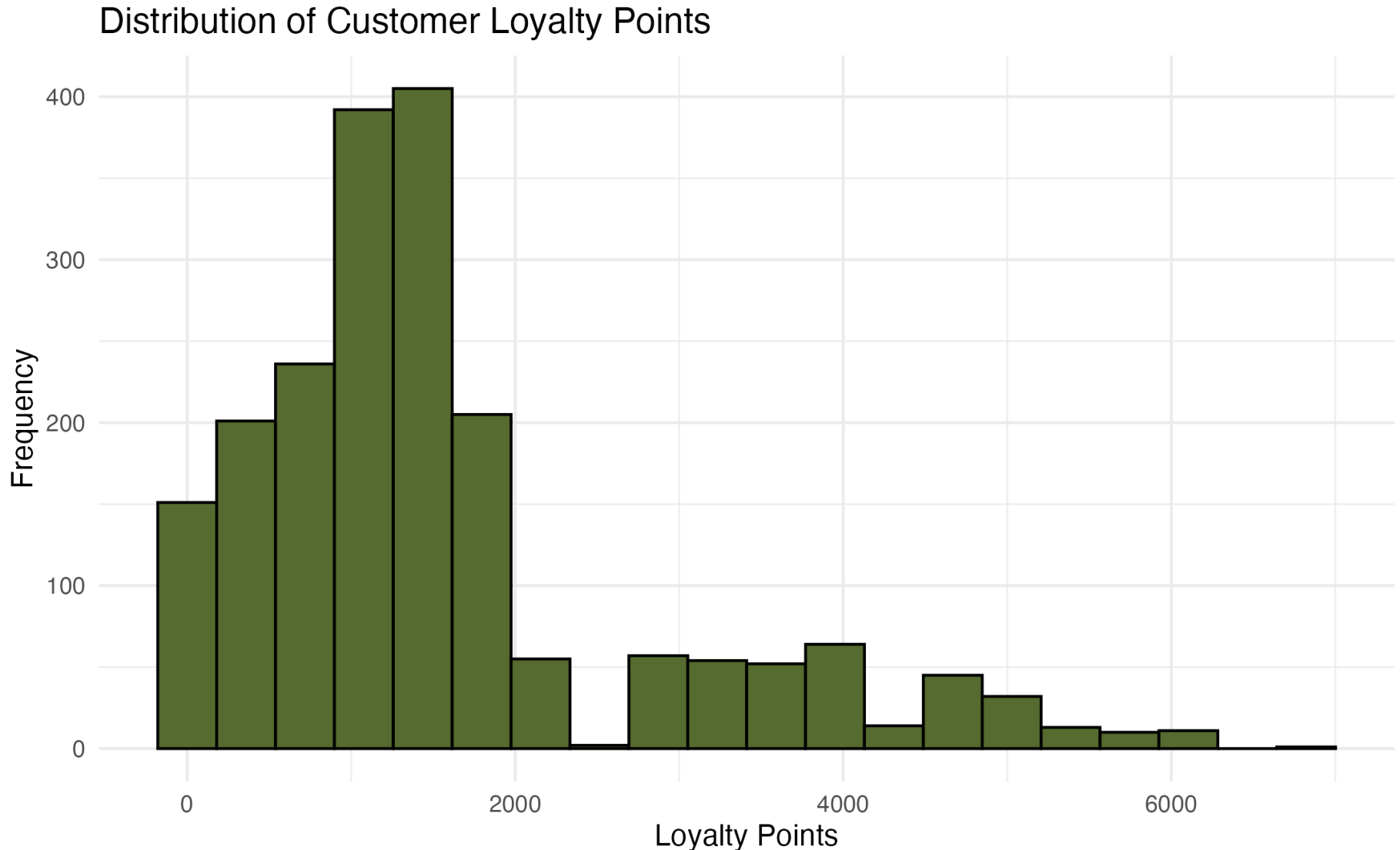


Cluster-specific sentiment data can be used for targeted marketing.

Review Sentiments by Customer Cluster



The loyalty points data has its limitations.



Business Recommendations

1. Target customers with mid-to-high incomes but low-to-mid spending scores with a marketing campaign that gives them bonus loyalty points for a future purchase.
2. Target customers who leave negative reviews with a marketing campaign that offers bonus loyalty points to regain their trust.

Reference List

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