



From Data to Decisions

PREDICTIVE ANALYTICS
FOR TURTLE GAMES

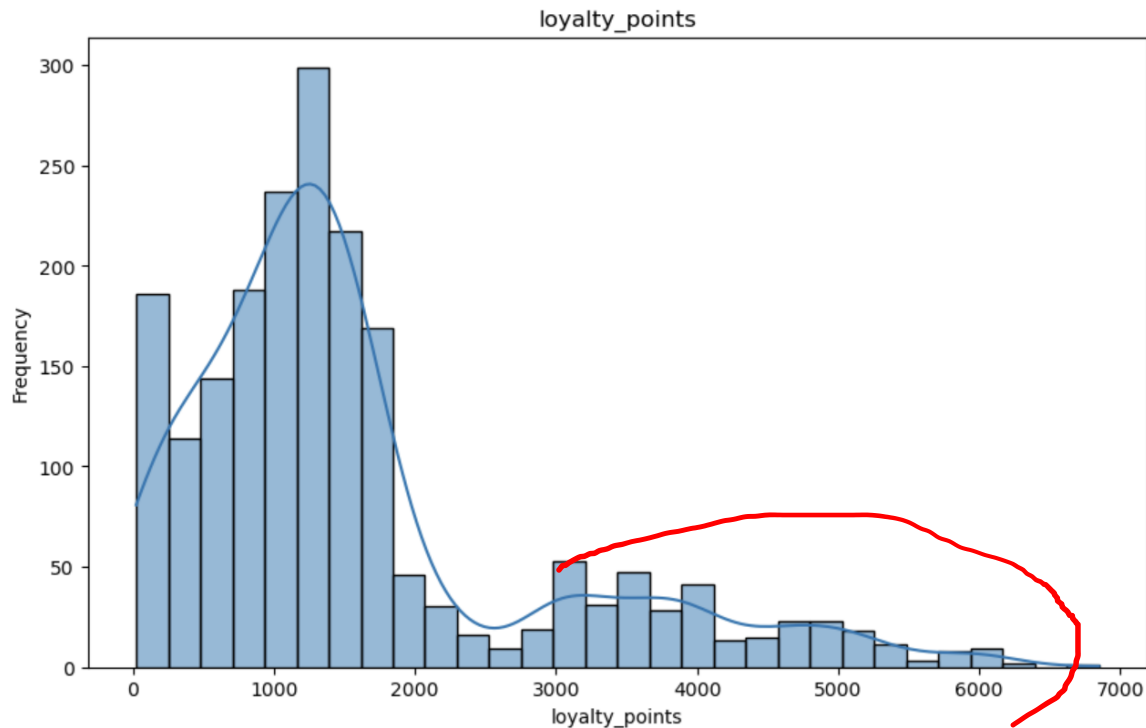


Housekeeping:

- Objective – to improve overall sales via targeted marketing
- Numeric target of analysis – loyalty points
- How do customers engage with and accumulate loyalty points?
- How can customers be segmented into groups for targeted marketing?
- How can customer reviews be used for marketing campaigns and make improvements to the business?
- Are loyalty points suitable data to create predictive models?



Loyalty Points: Stats



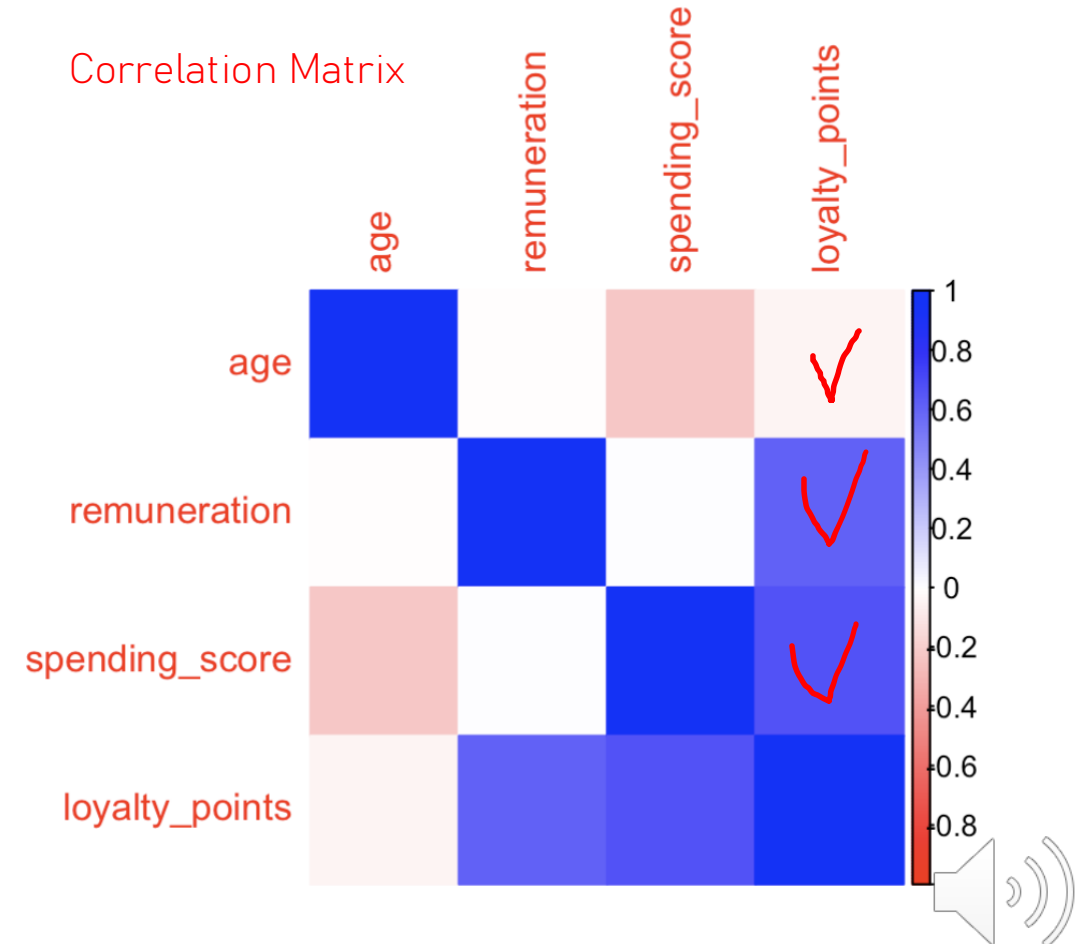
- The dataset includes 2,000 customer profiles.
- Loyalty points span a broad range, from 25 to 6,847.
- Most customers earn under 2,000 points.
- The typical customer holds 1,276 points (median).
- 13% of customers (266) exceed 3,220 points, forming the high-value segment.
- These high scorers are key to retain, understand, and replicate.



Loyalty Points: What Matters Most?

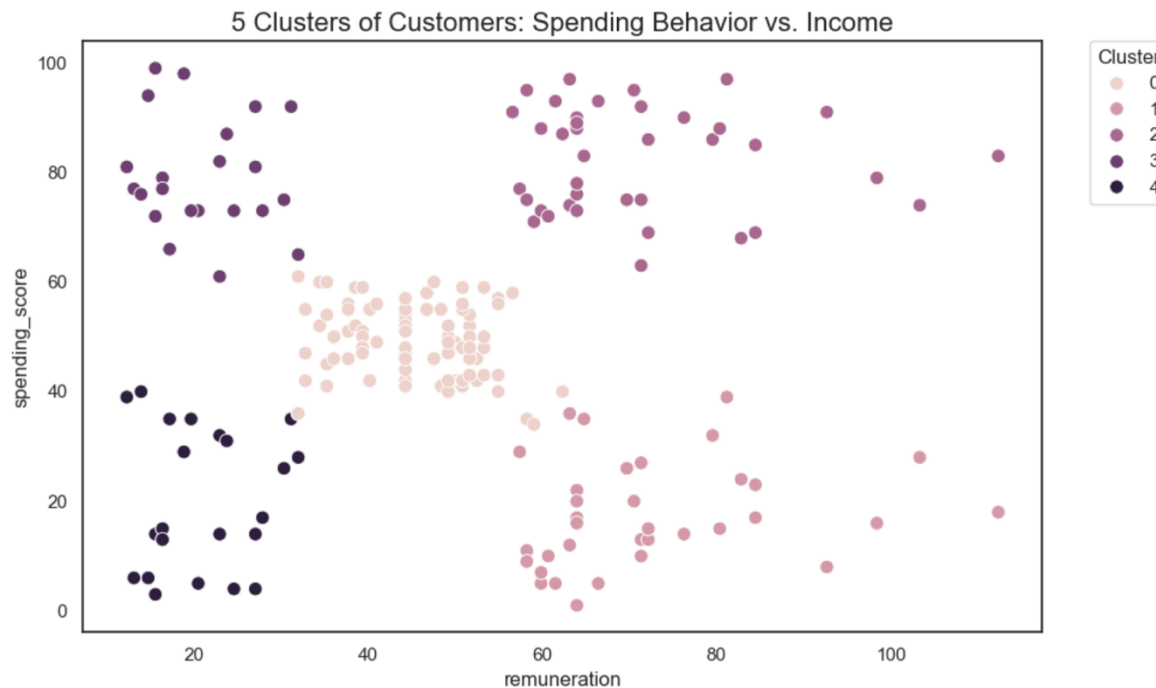
spending score
remuneration

age



Customer Clusters: Tailoring Marketing to Every Group

1. Mass appeal (5 clusters)



- + ideal for efficiency and broad reach
- + scalability, in terms of products meant for a wider audience.
- + enables more streamlined marketing campaigns, reducing the complexity involved in segmentation
- lack of precision and potential to alienate customers with irrelevant message
- may miss high value/ niche customers existence of which was observed earlier



Customer Clusters: Tailoring Marketing to Every Group

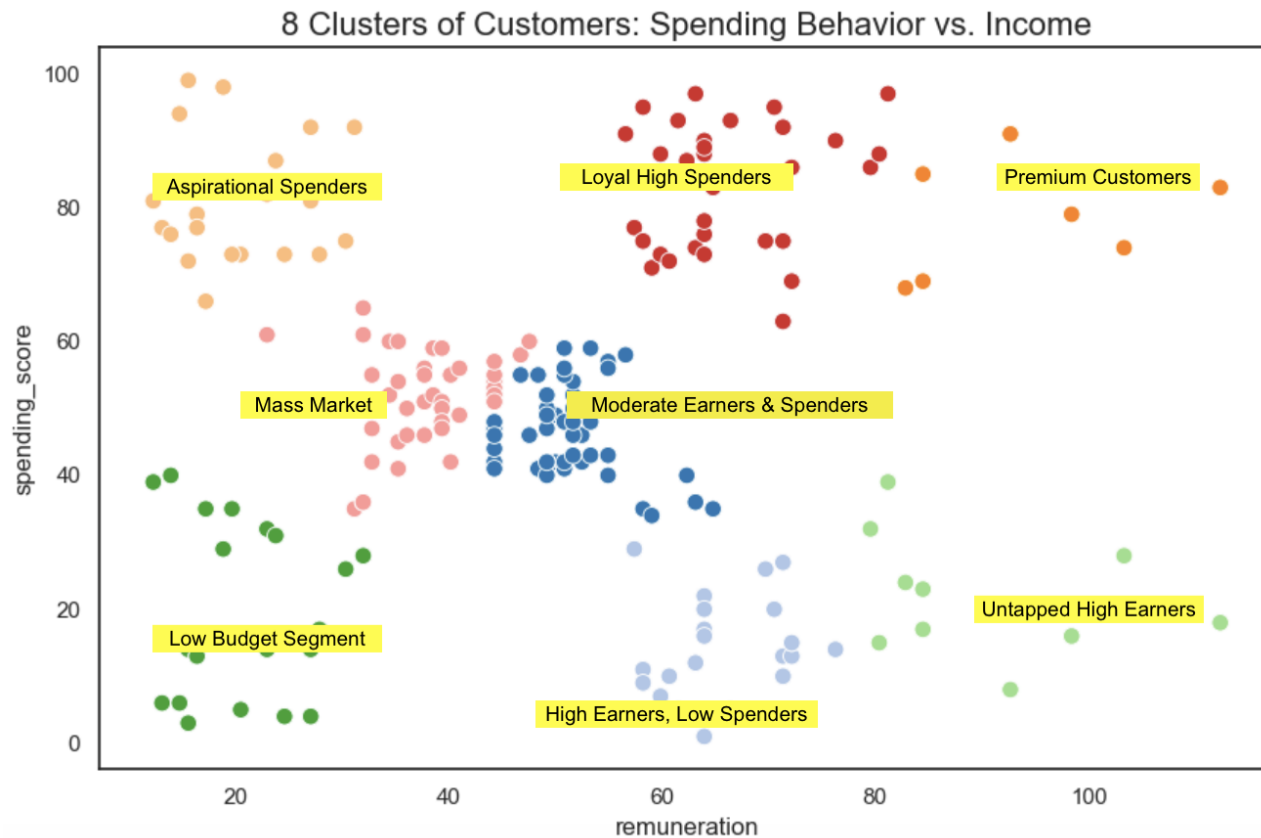
2. Niche focus (8 clusters)



- + better targeting of high-value customers
- + more relevant messaging and promotions.
- + potentially higher engagement, stronger loyalty and better ROI
- more complex to manage from required resources to ongoing analysis
- risk of over-segmentation



Examples of Tailored Marketing for 8 Clusters:



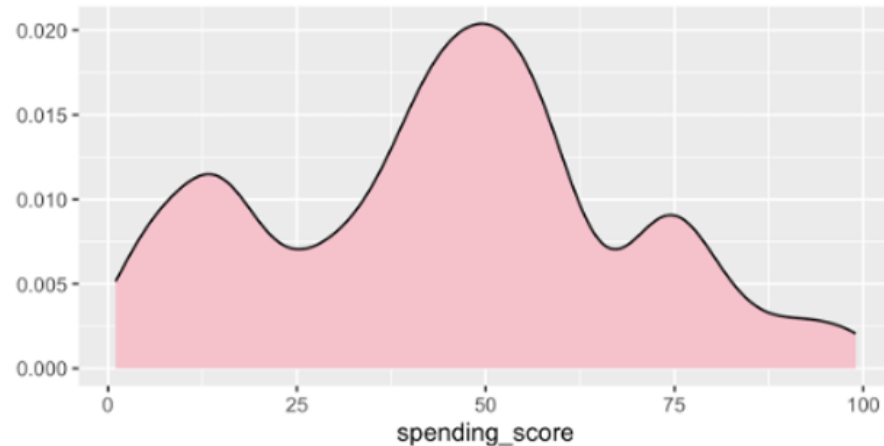
- high-income, high-spending – upsell and cross-sell opportunities,
- low-income, high-spending customers – engagement to prevent overspending.
- middle-income segments – nurturing through loyalty programs,
- budget-conscious – cost-effective offers.



Why Niche Marketing Makes Sense

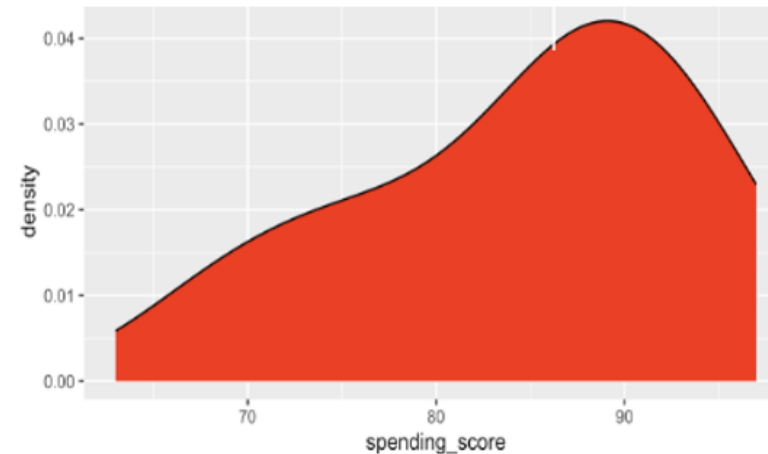
Typical Customers

Median income £44,280.00



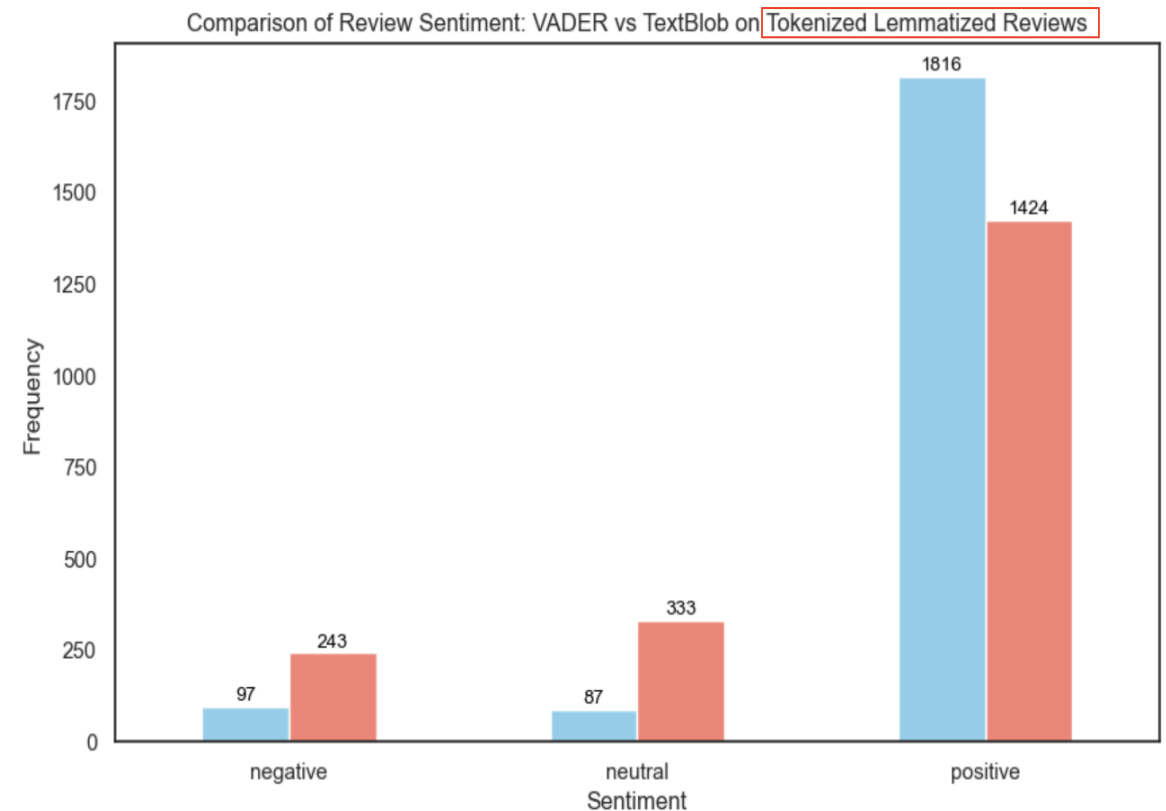
High-value Customers

Median income £77,160.00



Sentiment Analysis: Quick Look into Customer Perceptions

- + The data confirmed a strong positive sentiment trend, useful for campaign messaging.
- + Scalable overview of customer opinions.
- Tested models VADER and TextBlob showed limited ability to detect negative sentiment and may overestimate positivity.
- explore machine learning models.



Recommendations:

- **Keep tracking and analysing loyalty points** — strong potential for predictive modelling and targeted marketing, but expanding the dataset is key to improving accuracy.
- **Include timestamps to data** to enable time-series analysis for customers' spending patterns over time.
- **Break down spending score** to understand its make up and use insights to refine customer segmentation.
- **Clean up customer reviews** by limiting word count and explore advanced ML models for more accurate sentiment analysis.
- **Focus marketing on niche segments** for better personalization, reach, and ROI — and tailor the loyalty program accordingly.

