Turtle Games

Identifying customer trends and improving sales performance

CO2 Assignment 3
Nikki Stopford

Understanding customers and improving sales

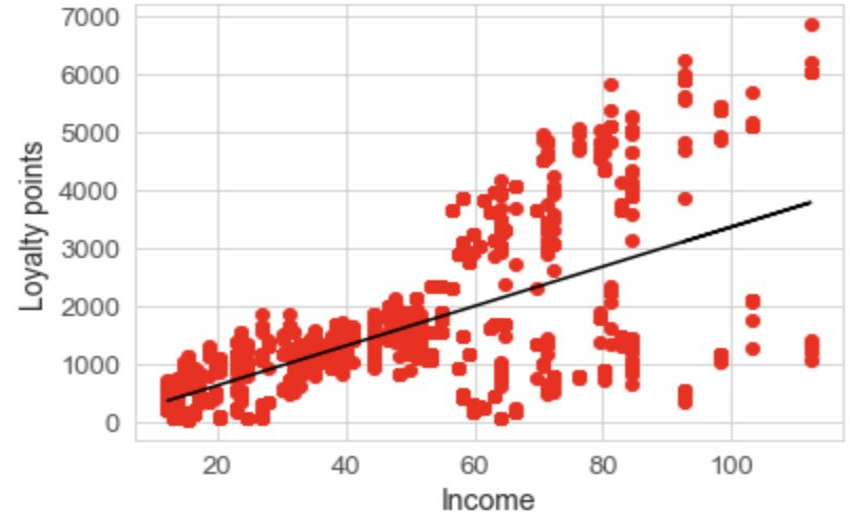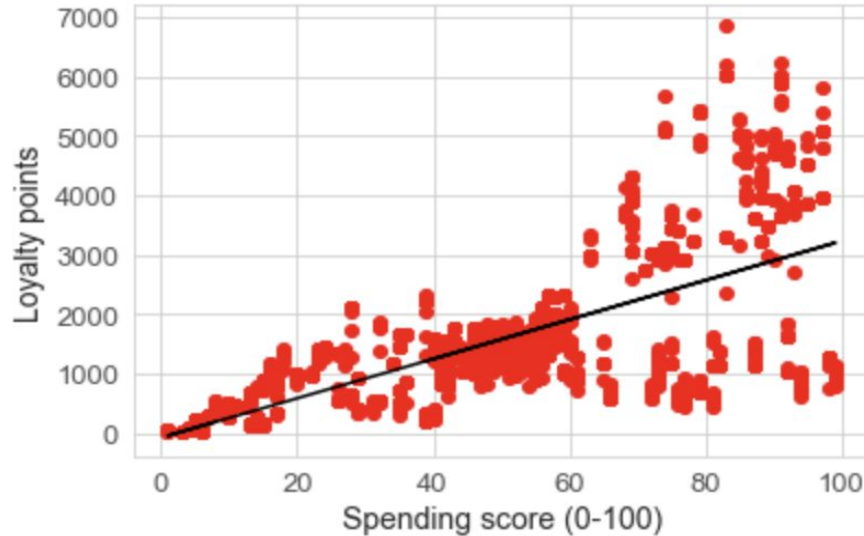**Big questions** — **What the data is telling us** — **Three key actions**

Business question 1: How do customers accumulate loyalty points?
Business question 2: How can groups within the customer base be used to target specific market segments?
Business question 3: How can social data (e.g. customer reviews) be used to inform marketing campaigns?
Business question 4: What impact does each product have on sales?
Business question 5: How reliable is the data (e.g. normal distribution, skewness or kurtosis)?
Business question 6: What are the relationships, if any, between North American, European and global sales?

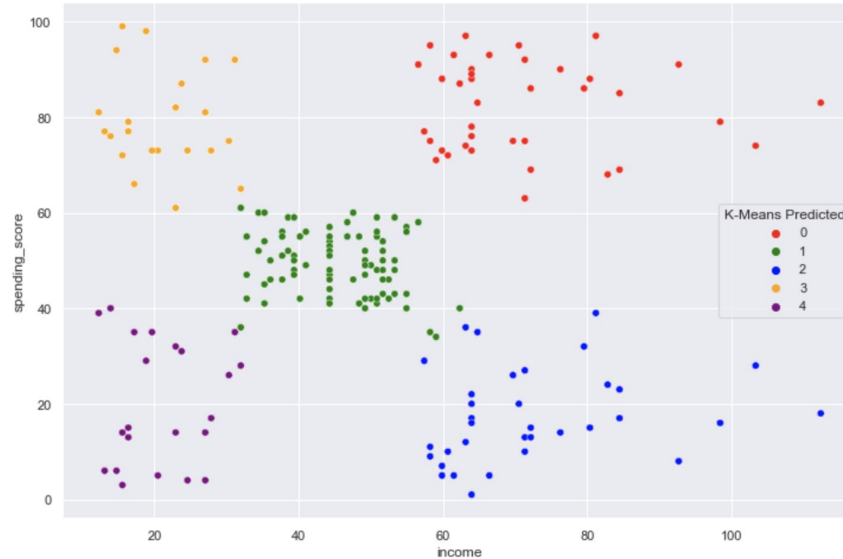**Business question 1**: How do customers accumulate loyalty points?

Customers who spend more and are on higher incomes drive the accumulation of loyalty points.
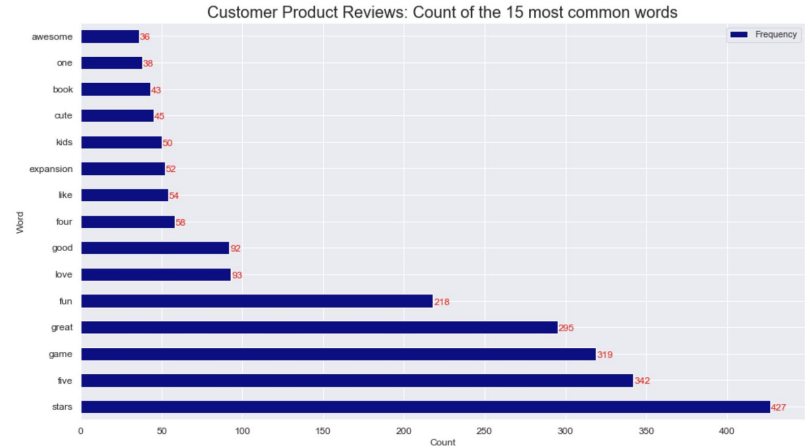
Business question 2: How can groups within the customer base be used to target specific market segments?

Middle-income/middle-spend (cluster 1) is the most common customer segment; followed by high-income/high-spend customers (cluster 0) and then high-income/low-spend (cluster 2).

Business question 3: How can social data (e.g. customer reviews) be used to inform marketing campaigns?

The top 20 negative reviews from customers gives a strong indication of what customers didn't like. A theme coming from the more negative reviews showed that customers found products bought difficult or complicated to use.

Customer Product Reviews: Count of the 15 most common words

Business question 4: What impact does each product have on sales?

The median average of sales across the 175 products sold globally is £8.09m. The lowest global sales achieved for a product was £4.2m. The middle 50% of product sales (the interquartile range) fall between £5.52m and £12.79m.
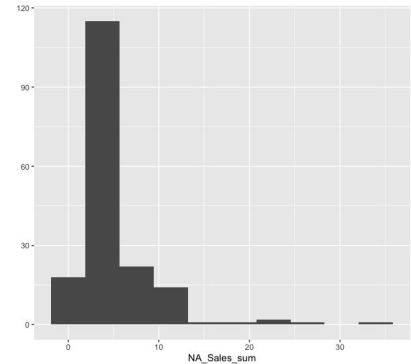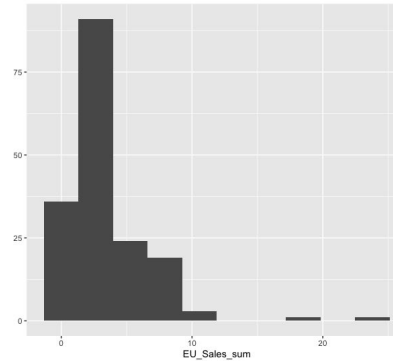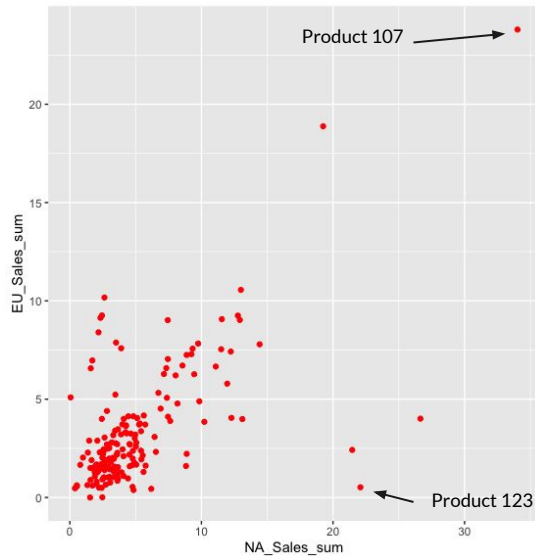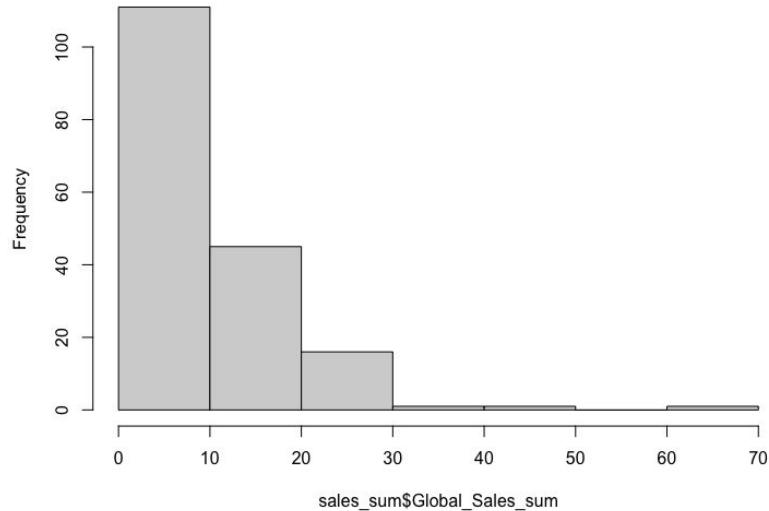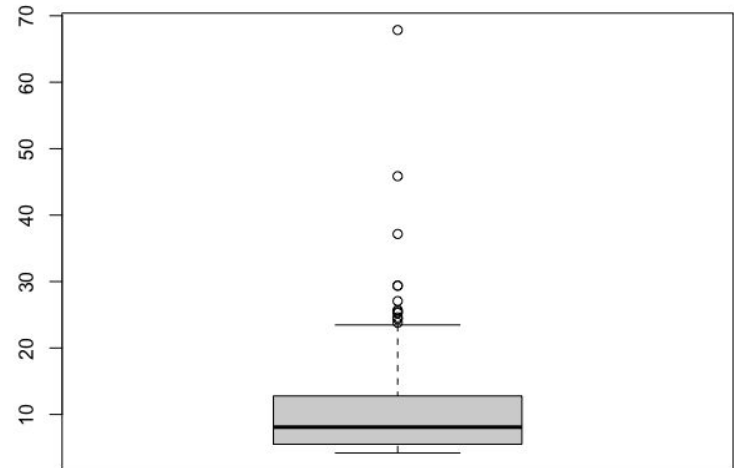
Business question 5: How reliable is the data (e.g. normal distribution, skewness or kurtosis)?

The results do not follow a normal distribution. Global sales are right skewed and we're seeing a small number of best-selling products.
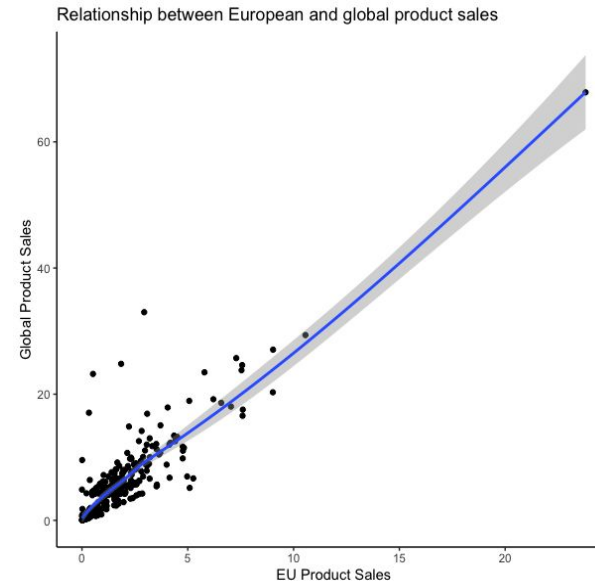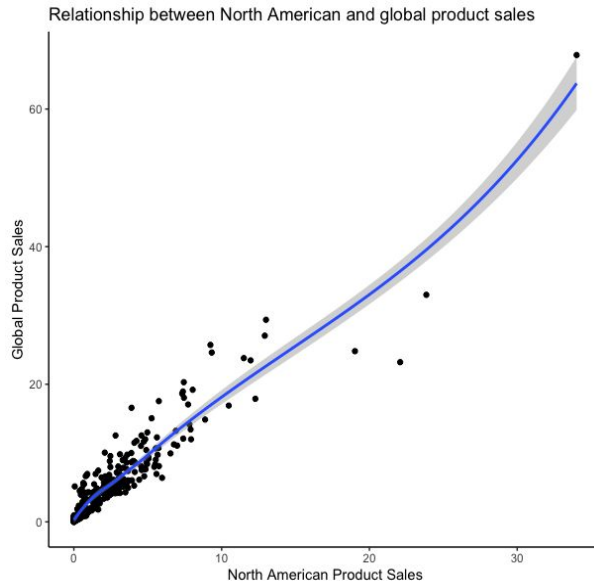

Histogram of sales_sum$Global_Sales_sum

Boxplot of global product sales

Business question 6: **What are the relationships, if any, between North American, European and global sales?**

Together, European and North American sales account for 96.64% of variation in global sales.

Relationship between North American and global product sales

Relationship between European and global product sales

From insight to action

Big questions — What the data is telling us — Three key actions

Action 1 Understand how loyalty rewards are being spent to inform marketing.
Action 2 Analyse negative reviews based on products bought to identify any trends.
Action 3 Identify more big hitting product lines.