TURTLE GAMES CUSTOMER INSIGHT STRATEGY

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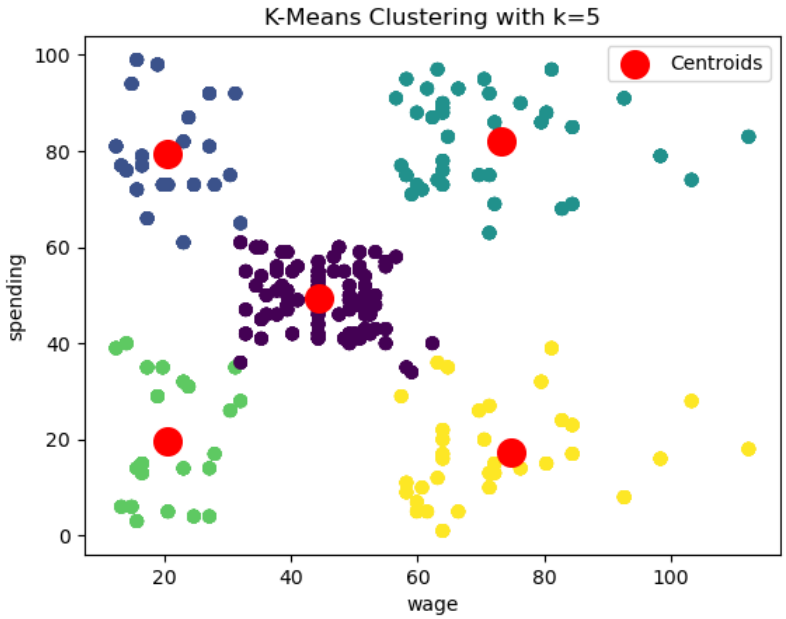
Turtle Games is a global retailer and producer of various gaming and entertainment products including video games and board games. The company seeks to improve overall sales performance by optimising its marketing efforts to capitalise on evolving customer trends. We utilised Python and R to determine customer trends and identify sales patterns. These platforms were used to generate comprehensive data-driven insights and strategies on customer loyalty behaviours, customer segmentation, customer values, product performance and overall sales performance.

The global gaming market has become increasingly competitive, especially after the rise of the direct-to-consumer model (Gaming sector follows streaming video's lead with direct-to-consumer offerings | S&P Global Market Intelligence). Fostering brand loyalty is critical for Turtle Game's objective of improving overall sales. We utilised Python to analyse a dataset containing customer age, wage, spending and their effect on customer loyalty. We used a multiple regression model to understand the relationship between these variables and their effect on customer loyalty scores. The OLS regression results revealed an R-Squared Value of 0.84 indicating that 84% of the variance of the loyalty points can be explained by age, wage and spending scores. The coefficient estimate indicates that a +1 increase in age is linked with an increase of ~ 11 loyalty points. Meanwhile, a +1 increase in wage is linked with a ~ 34 increase in loyalty points. Similarly, a 1 unit increase in spending score is linked with +34 loyalty points. Therefore, wage and spending scores are the two largest factors in increasing loyalty scores. Turtle Games must target high-wage, high-spending customers to foster brand loyalty. Additionally, they can improve the loyalty card offering to encourage greater spending.

Another key component of determining customer trends is to contextualise and group customer spending behaviour. Once we have identified customer spending behaviour, we can target them with tailored marketing that will most likely resonate with their demographic's behaviour. We analysed data on customer spending and income to create customer cluster groups. Using the Elbow and Silhouette methods, it was determined that the optimal number of clusters for this data was 5 groups.



The clusters are clearly separated from each other, therefore indicating 5 distinct groups. The clusters are also densely packed, and the centroids are near the centre of the clusters, therefore showing the similarity of the clusters. From the data, it is reliable to suggest that there are five distinct customer behaviour patterns.

These are the five groups

1) Low wages, high spend

2) low wage, low spend

3) moderate wage, moderate spend

4) High wage low spend

5) High wage high spend

Each of these groups can be targeted with specific marketing strategies which are most likely to resonate with their behaviours and ultimately lead to increased sales conversion. Furthermore, targeting customers with personalised marketing campaigns fosters increased brand reputation as the customer feels understood by the company (Bleier et al., 2015).

It is pertinent to understand the customer's values and their perceptions of our products so that we can align with these values in our marketing communications. To gauge customer sentiment, we analysed customer reviews on our website using Python's natural language processing libraries such as NLTK. These libraries allowed us to analyse a large dataset efficiently and with a high degree of accuracy. It was determined that the majority of the reviews had a high sentiment polarity score, the mean was 0.64. Therefore, indicating favourable perceptions of the product range. The top 20 reviews by positive sentiment were manually coded to determine common themes. Manual code was utilised as human coding can better understand ambiguous or nuance languages in reviews. For example, concepts such as sarcasm. The common themes emphasised in the reviews were fun, build quality, accessibility, and value for money. In future marketing campaigns, we could highlight these factors in communication to entice and engage customers and ultimately lead to greater sales conversion.

However, it is pertinent that we do not rely solely on customer reviews on our website to inform our understanding of customers' product perceptions or their values. The range of customers who write reviews is limited and may not represent the entire customer base, such as non-English speakers. To capture a holistic understanding of customer perceptions and values we must incorporate multiple feedback touchpoints including customer surveys, focus groups and social media conversation analysis. Overall, the data-driven analysis we have generated about Turtle Games' customer base can provide some actionable insights. However, more data needs to be analysed to gain a holistic and comprehensive understanding of customer behaviours and attitudes.

We performed an analysis of global and regional sales data to identify patterns and insights into the relationship between different sales regions. These insights are valuable for the company's objective of improving overall sales as they can inform top-line strategic decisions such as resource allocation and marketing spend. We used R to analyse sales data as the tidyverse package offers superior tools for all the stages of statistical analysis. Data visualisations were created to analyse the relationships between sales volumes of different regions, distribution of sales and top-performing products. It was revealed that the majority of sales were associated with a few top-performing products. Normality tests also supported the skewness of product sales. Therefore, it is essential that Turtle Games maintain an inventory of these highly demanded products and focus marketing efforts on such products.

A correlation Matrix and Multiple Regression model were used to determine the relationship between different regions and sales. The correlation between North America and Global sales is 0.93, indicating a very strong relationship. The correlation between EU and Global sales is 0.88, indicating a strong relationship but not as strong as that of North America and Global sales. The correlation between EU and North America is 0.70 which indicates a decently strong relationship. Therefore, we should prioritise resourcing and marketing efforts in the North American region as success in this region is most likely to correlate with greater overall sales. However, we must note that similar to the customer insights, this sales data does not provide a holistic

picture. There may be factors not captured in the data that have affected it, such as a relatively short-term economic upturn in the US or supply chain issues in the EU. Overall, a greater context is needed to inform a comprehensive sales strategy.

Overall, the findings from this report provide Turtle Games with solid, data-driven insights into customer behaviours and sales strategies. If followed, the insights from this report are likely to aid Turtle Games in achieving its objective of increasing sales. Future research can be conducted to build upon these insights and facilitate a comprehensive strategy to reliably increase global sales.