

# Customer Behaviour Analysis

Marketing & Customer Analytics

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# 1. Download CSV Files & Load Data into SQL (Python & SQL)

- First the given csv files were downloaded, then opened them to understand the data and data size.
- Using pandas the csv files were imported to vs code, basic python function and codes were used to clean the data.
- Cleaning the data: Studying them, checking for empty values (the empty values were not deleted due to their importance), removing duplicates, modifying the data as per requirement and finally checking if the right data types are assigned or not.
- The cleaned csv files are then saved.
- MySQL-connector is used to create tables in MySQL.
- Then with the use of SQL Alchemy the cleaned csv files are imported to MySQL to further perform quires.

## 2. Data Extraction & Transformation (SQL & Python):

- Once all the CSV files are imported to MySQL the data is further studied deeper to answer the required questions and to perform analysis.
- Further required queries are performed in VS Code through python like mentioned to get insights into the data provided.

### 3. Customer Journey & Engagement Analysis (SQL):

- The Drop off point of customer journey is at the Checkout stage.
- The products ID 17, 15, 16 and 2 were some of them which got converted to successful purchase. The average duration of the purchases was 150.16.
- Stage wise the average duration is found. In which we can see customers are spending more time on the product page. This is to be utilised and further offers or important data is to be presented here for more interaction.

## 4. Customer Reviews Analysis (SQL & Python):

- The products with higher rating are football helmet, tennis racket, surfboard, climbing rope and yoga mat. The least rating products are tennis racket, dumbbells and yoga mat. We can see both highest and least rating has same products this says that the product quality is good but somewhere the customer was not satisfied. It is due to the lack of customer support and improper customer interaction after sales.
- The basic sentiment analysis has been performed and the conclusion is that it is mostly towards the positive side around 62%. If we act now on the small issues we can bring this company around.
- We can see that review has both positive and negative effects on sales of the product. Where positive reviews has got good sales and negative review products has lower sales.

## 5. Marketing Effectiveness (SQL):

- The customer retention rate is 41.93%, so approx. out of 100, 42 customers are likely to make a purchase again.
- Out of 100 only 36 are new buyers. This gives us a chance to improve more on customer loyalty programs for repeat buyers and market better for new customers.
- Geography wise the most sold product is found. The list is displayed in the code.

## 6. Business Recommendations (SQL & Python):

- Strategies to enhance customer satisfaction:
  1. Improvement of product quality
  2. Act of Customer feedback and reviews
  3. Reward customer loyalty
  4. Faster customer service
  5. Personalise the customer experience
- Marketing Strategy:
  1. To market towards the younger customer segment, as the company is focused on sports products.
  2. This involves more capital being invested in digital marketing and influencer marketing.