

# Customer Behaviour Analysis

Domain - Marketing & Customer Analytics

**SQL for Data Analysis and Database Management**

**Python for Database Operations**  
**Customer Journey & Marketing Analytics**  
**Business Insights & Decision-Making**

## Consumer behavior factors



Individual psychology



Sales and marketing



Societal influences



Economic status



Demographics



Profession and education

# Customer Journey & Engagement Analysis :

- Identify drop-off points in the customer journey.

stage	DropOffCount
Checkout	14

## ✓ Drop-off Points in Customer Journey:

- Identify where users abandon their journey (e.g., ProductPage, Homepage, Checkout).
- Helps optimize engagement and reduce churn.

- Find common actions leading to successful conversions.

Action	productname	Frequency
Purchase	Climbing Rope	2
Purchase	Surfboard	2
Purchase	Fitness Tracker	1
Purchase	Kayak	1

## ✓ Common Actions Leading to Conversions:

- Example: Customers purchasing Climbing Rope, Surfboard, Fitness Tracker, and Kayak frequently.
- Understanding these behaviors can help improve recommendations and upselling strategies.

Calculate average duration per stage for engagement insights.

Stage	Avg_Duration
ProductPage	182.769
Homepage	160.537
Checkout	45.05

## ✓ Average Duration per Stage:

- ProductPage (182.76 sec), Homepage (160.53 sec), Checkout (45.05 sec).
- Users spend significant time on product pages, indicating research behavior.
- Quick checkout times suggest a seamless payment process.

# Customer Reviews Analysis

- Identify highest-rated and lowest-rated products .

PRODUCTNAME	CATEGORY	AVGRATING	RATINGSCALE
Basketball	Sports	2.6667	LOWRATING
Football Helmet	Sports	5.0000	HIGHRATING

✓ Identify Highest- and Lowest-Rated Products:

Lowest-rated: Basketball (Avg. Rating: 2.67)

Highest-rated: Football Helmet (Avg. Rating: 5.00)

Helps in product improvement and marketing strategies.

- Perform basic sentiment analysis in Python..

Sentiment	1	2	3	4	5
Negative	3	4	17	0	0
Neutral	0	2	3	25	10
Positive	0	0	9	14	13

✓ Perform Basic Sentiment Analysis in Python:

Negative sentiment mostly associated with ratings 1 & 2.

Neutral and Positive sentiments increase with higher ratings.

Enables targeted action to improve customer satisfaction.

# Negative Review based on products

ProductName	TCount
Baseball Glove	1
Basketball	2
Dumbbells	2
Fitness Tracker	2
Golf Clubs	1
Ice Skates	1
Kayak	4
Running Shoes	1
Surfboard	3
Swim Goggles	2
Tennis Racket	2
Volleyball	1
Yoga Mat	2

Observations:

- The Kayak has the highest number of negative reviews (4).
- The Surfboard follows with 3 negative reviews.
- Several products (Basketball, Dumbbells, Fitness Tracker, Swim Goggles, Tennis Racket, Yoga Mat) have 2 negative reviews each.
- Some products (Baseball Glove, Golf Clubs, Ice Skates, Running Shoes, Volleyball) have 1 negative review.

# Marketing Effectiveness:

## First-Time vs. Repeat Customers Analysis

### Customer Distribution:

First-Time Customers: 18

Repeat Customers: 1 (🌟 Very Low)

customerType	TotalCustomers
First-Time customer	18
Repeat customer	1

### Key Takeaways:

High Drop-Off Rate: Only 1 out of 19 customers made a repeat purchase.

Potential Issues: Lack of retention strategies, unsatisfactory product experience, or missing incentives for repurchases

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### Recommended Actions:

Follow-Up Campaigns: Send personalized emails or discounts to first-time buyers.

Loyalty Programs: Reward repeat purchases to increase retention.

Product & Service Enhancements: Address customer complaints from sentiment analysis.

Subscription or Bundling Options: Encourage repeat engagement.

## Customer Retention Rate Analysis

### Retention Rate: 26%

Indicates that only 26% of customers return for repeat purchases.

Suggests potential issues with product satisfaction, pricing, or customer engagement.

# Best-performing products per region

country	SalesCount
Spain	5
Germany	3
Belgium	3
Austria	3
Sweden	2
Switzerland	1
Italy	1
Netherlands	1
UK	1

- Focus on Spain
- Since Spain has the highest sales, analyze what is driving success (e.g., marketing, demand, pricing).
- Increase marketing efforts to maintain and expand growth.
- Boost Sales in Medium-Performing Countries (Germany, Belgium, Austria, Sweden)
- Targeted promotions and localized marketing strategies can help.
- Investigate potential barriers to higher sales.
- Improve Sales in Low-Performing Countries (Switzerland, Italy, Netherlands, UK)
- Conduct customer analysis to understand why sales are lower.
- Run localized campaigns or introduce discounts to attract more buyers.

# Business Recommendations

## TOP 3 REVIEW POINTS FOR NEGATIVE FEEDBACK

ReviewText	Count
Average experience, nothing special.	8
Not worth the money.	7
The product is okay, but the instructions were unclear.	3

After analyzing customer sentiment, the most common negative feedback includes:

1 "Average experience, nothing special." (📝 8 mentions)

Customers feel the product lacks uniqueness or exceptional quality.

2 "Not worth the money." (💰 7 mentions)

Perceived as overpriced relative to quality or features.

3 "The product is okay, but the instructions were unclear." (📖 3 mentions)

Issues with usability due to poor documentation.

## Key Takeaways for Improvement

- ✓ Enhance product differentiation – Offer unique features or better performance.
- ✓ Reassess pricing strategy – Ensure value-for-money perception.
- ✓ Improve user guidance – Provide clearer manuals and support.