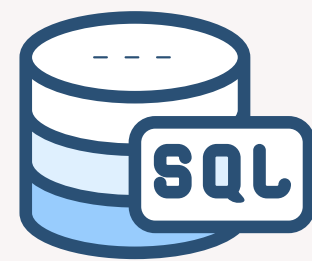


PORTFOLIO PROJECT

DIGITAL MARKETING ANALYSIS

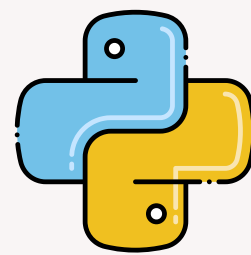
Ahmed M. Abd Elhadi

@ahmedmosaad0



SQL

Data Exploration
Data Cleaning
Data Preparation
Initial Insights



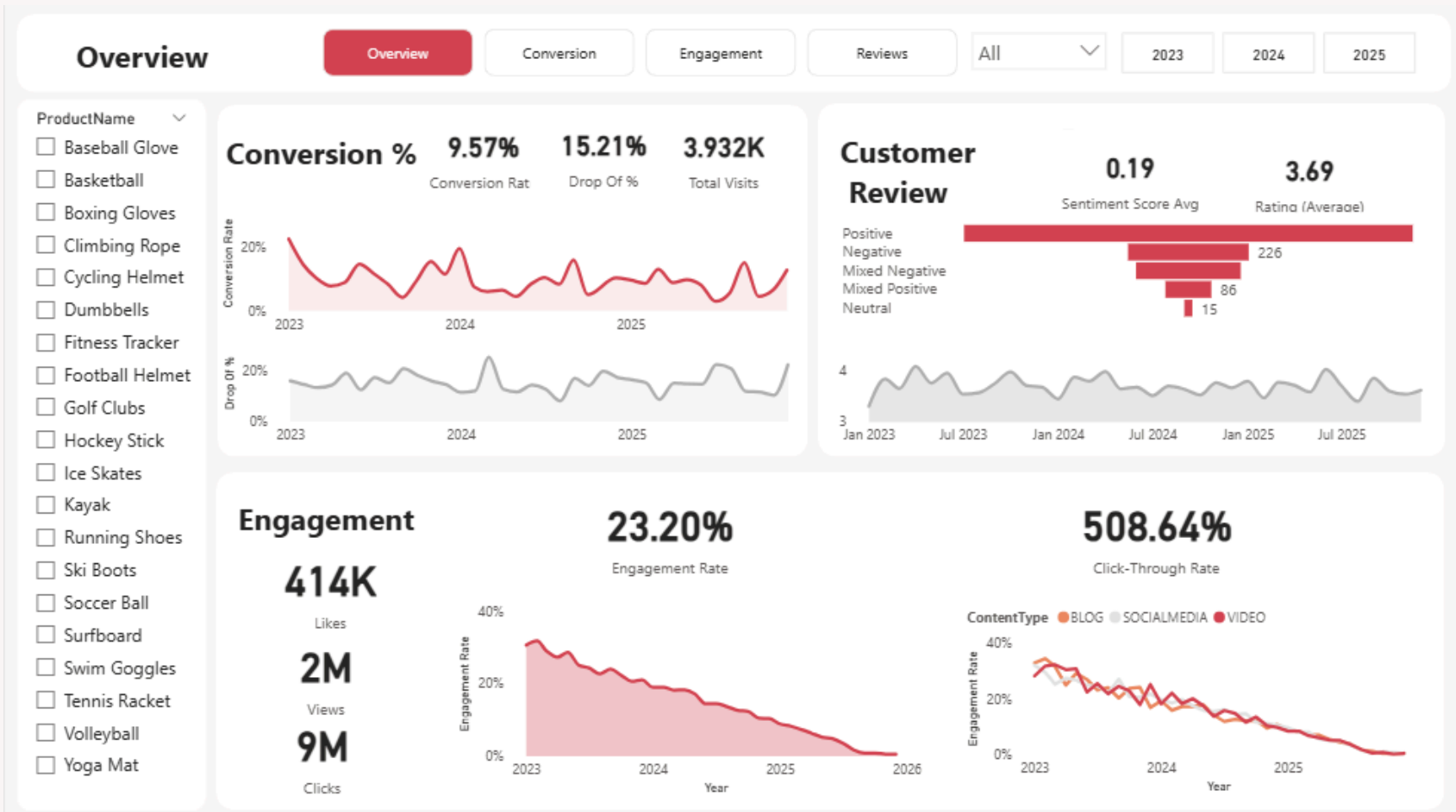
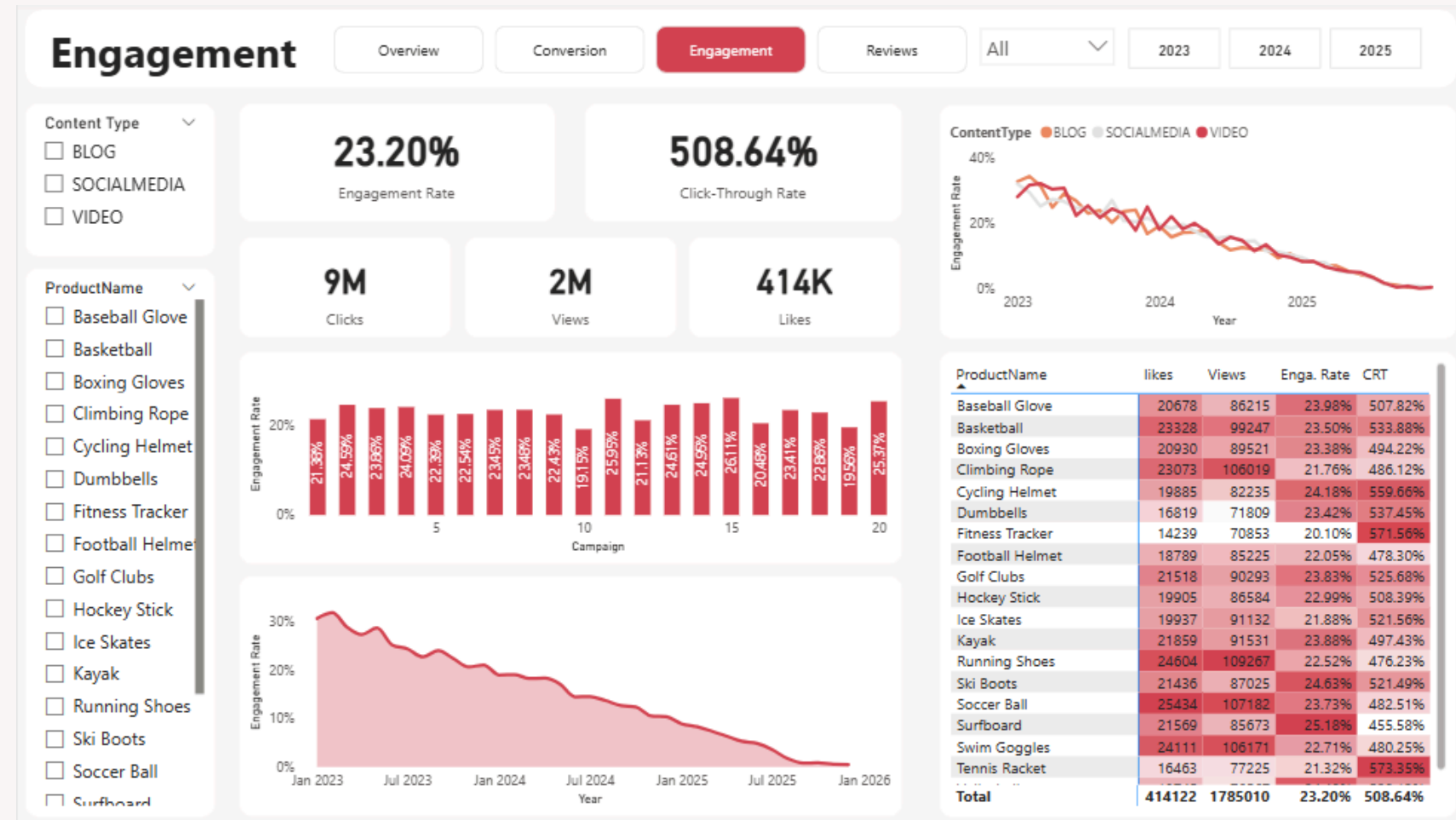
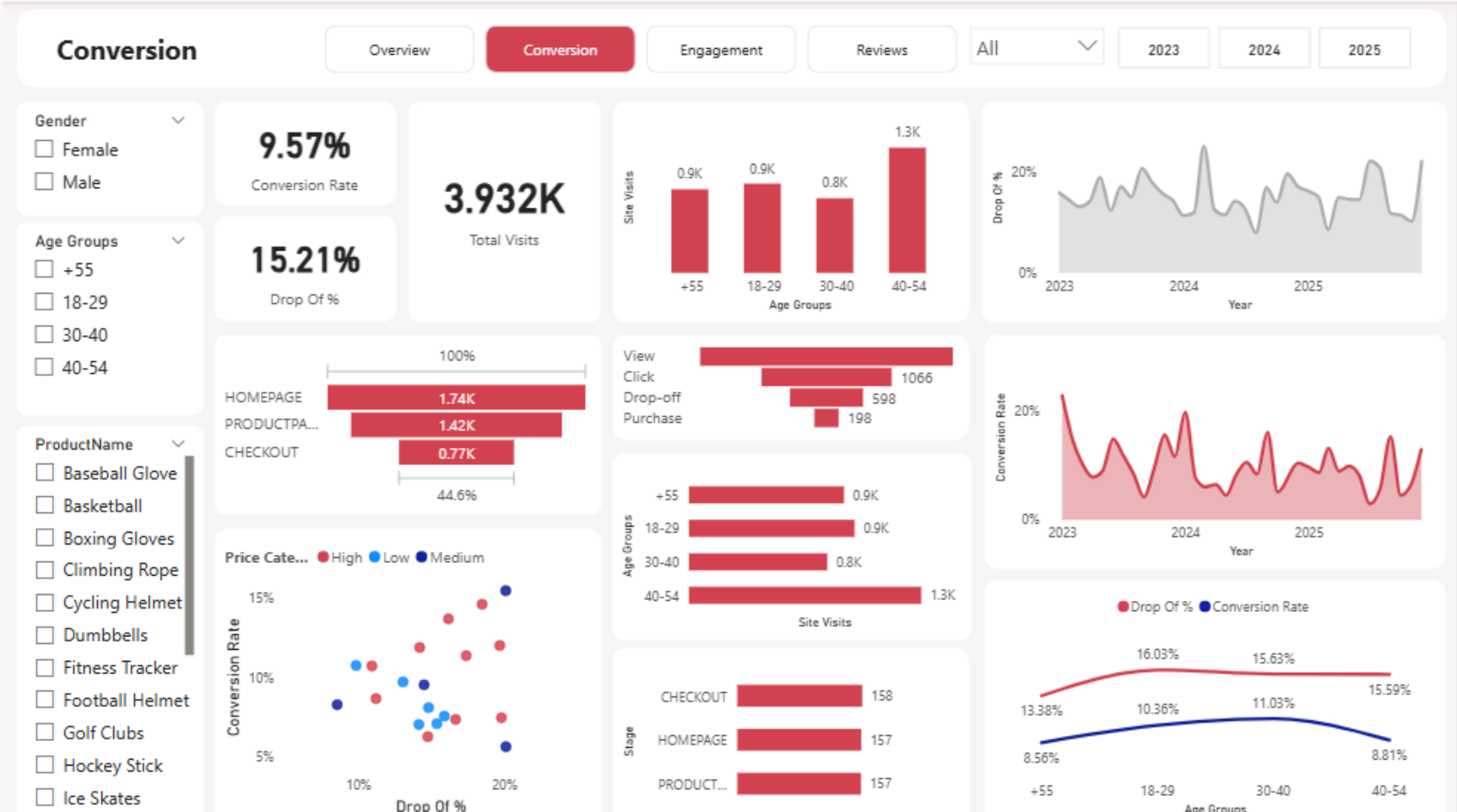
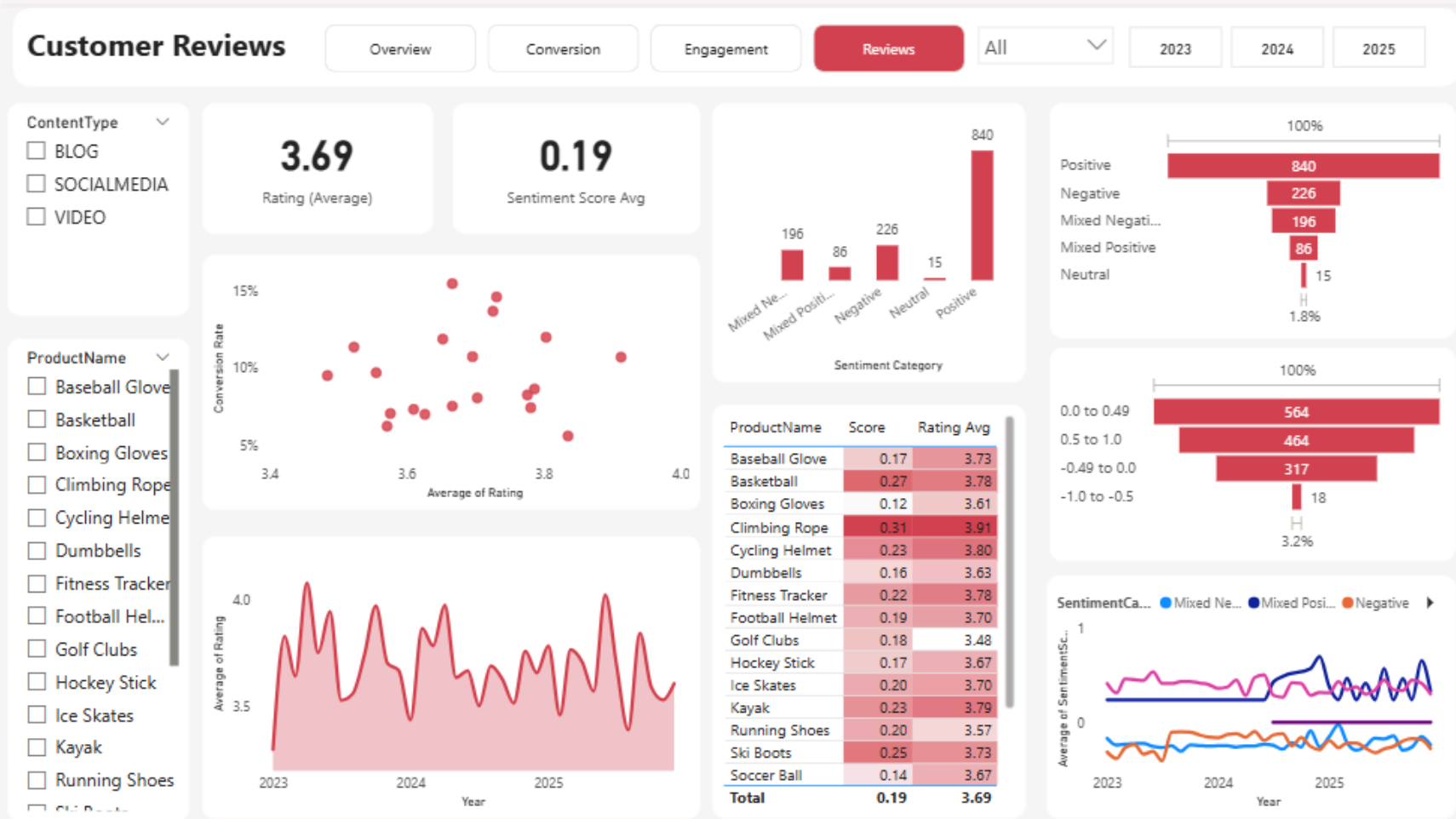
Python

sentiments analysis
Categorise Reviews



Power Bi

Dashboarding
Multiple Data Sources
Data Modeling



STAKEHOLDERS MEETING

Business Case

ShopEasy, an online retail business, is facing reduced customer engagement and conversion rates despite launching several new online marketing campaigns. They are reaching out to you to help conduct a detailed analysis and identify areas for improvement in their marketing strategies.

Key Points

- Reduced Customer Engagement: The number of customer interactions and engagement with the site and marketing content has declined.
- Decreased Conversion Rates: Fewer site visitors are converting into paying customers.
- High Marketing Expenses: Significant investments in marketing campaigns are not yielding expected returns.
- Need for Customer Feedback Analysis: Understanding customer opinions about products and services is crucial for improving engagement and conversions.

Marketing Manager

Customer Experience Manager

- We've been facing some challenges with our marketing campaigns lately, and I'm reaching out to request your expertise in data analysis to help us identify areas for improvement. Despite our increased investment in marketing, we've observed a decline in customer engagement and conversion rates. Our marketing expenses have gone up, but the return on investment isn't meeting our expectations. We need a comprehensive analysis to understand the effectiveness of our current strategies and to find opportunities to optimize our efforts. We have data from various sources, including customer reviews, social media comments, and campaign performance metrics. Your insights will be invaluable in helping us turn this situation around.
- I'm writing to seek your help with analyzing our customer feedback. Over the past few months, we've noticed a drop-in customer engagement and satisfaction, which is impacting our overall conversion rates.
- We've gathered a significant amount of customer reviews and social media comments that highlight various issues and sentiments. We believe that by thoroughly analyzing this feedback, we can gain a better understanding of our customers' needs and pain points.
- Your expertise in data analysis will be crucial in helping us decode this feedback and provide actionable insights. We hope this will guide us in improving our customer experience and ultimately boost our engagement and conversion rates.

DASHBOARD

Overview

Overview

Conversion

Engagement

Reviews

All

2023

2024

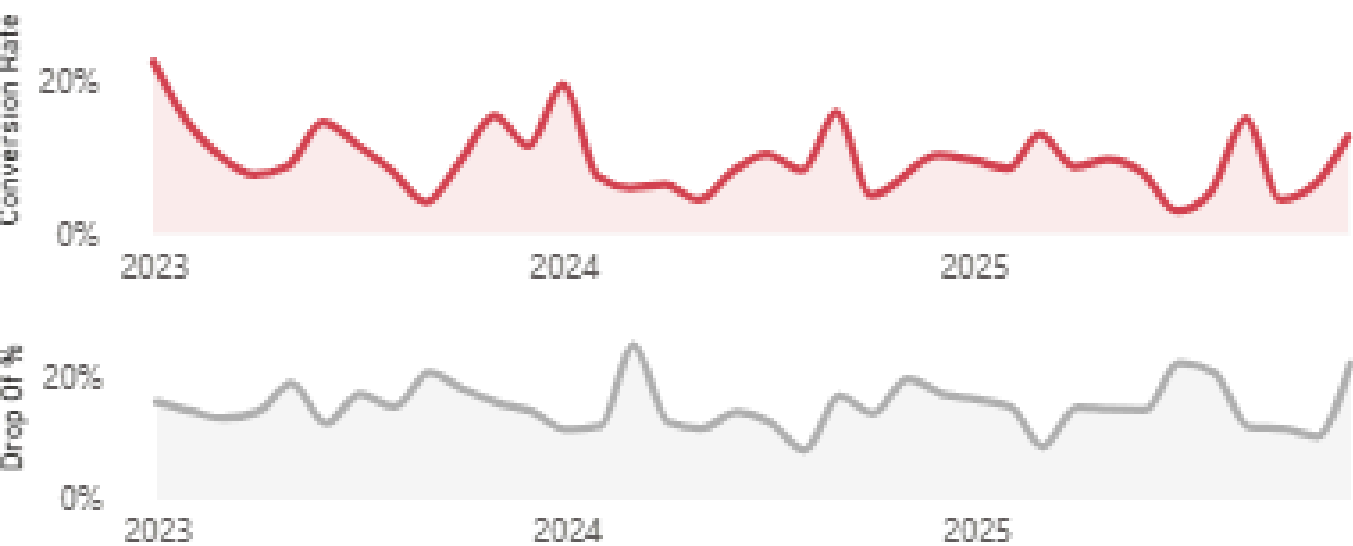
2025

ProductName

- ☐ Baseball Glove
- ☐ Basketball
- ☐ Boxing Gloves
- ☐ Climbing Rope
- ☐ Cycling Helmet
- ☐ Dumbbells
- ☐ Fitness Tracker
- ☐ Football Helmet
- ☐ Golf Clubs
- ☐ Hockey Stick
- ☐ Ice Skates
- ☐ Kayak
- ☐ Running Shoes
- ☐ Ski Boots
- ☐ Soccer Ball
- ☐ Surfboard
- ☐ Swim Goggles
- ☐ Tennis Racket
- ☐ Volleyball
- ☐ Yoga Mat

Conversion % 9.57% 15.21% 3.932K

Conversion Rat Drop Of % Total Visits



Customer Review

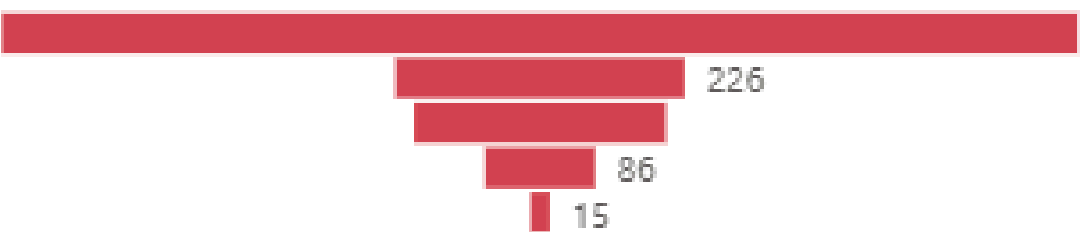
0.19

3.69

Sentiment Score Avg

Rating (Average)

Positive
Negative
Mixed Negative
Mixed Positive
Neutral



Engagement

23.20%

Engagement Rate

414K

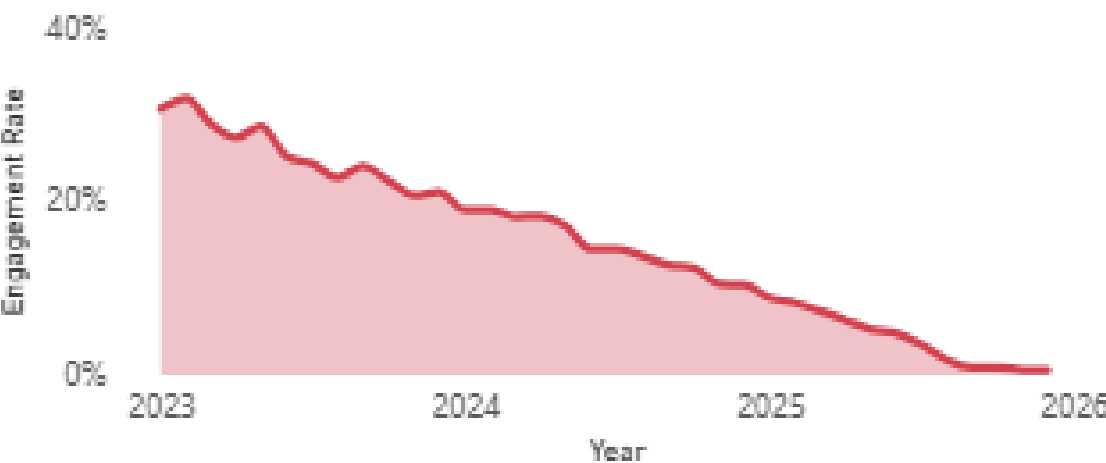
Likes

2M

Views

9M

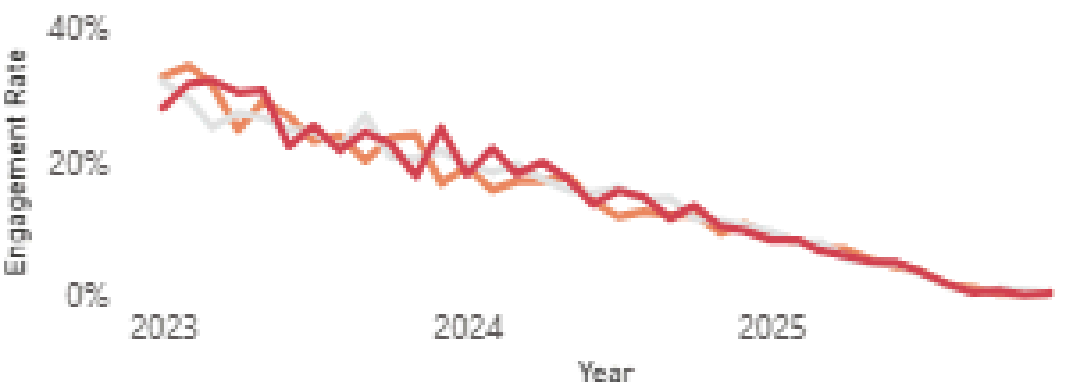
Clicks



508.64%

Click-Through Rate

ContentType BLOG SOCIALMEDIA VIDEO



Conversion

Overview

Conversion

Engagement

Reviews

All

2023

2024

2025

Gender

☐ Female

☐ Male

Age Groups

☐ +55

☐ 18-29

☐ 30-40

☐ 40-54

ProductName

☐ Baseball Glove

☐ Basketball

☐ Boxing Gloves

☐ Climbing Rope

☐ Cycling Helmet

☐ Dumbbells

☐ Fitness Tracker

☐ Football Helmet

☐ Golf Clubs

☐ Hockey Stick

☐ Ice Skates

9.57%

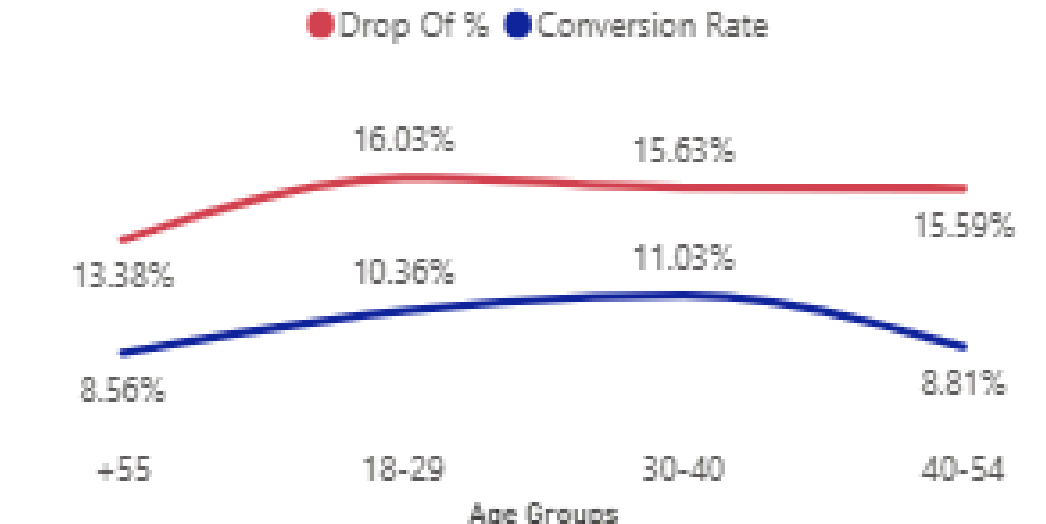
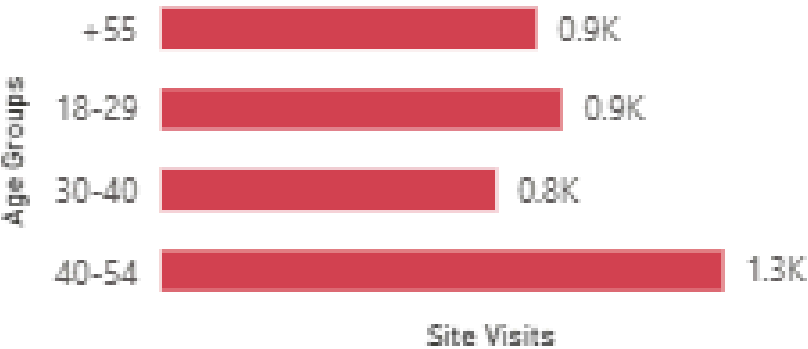
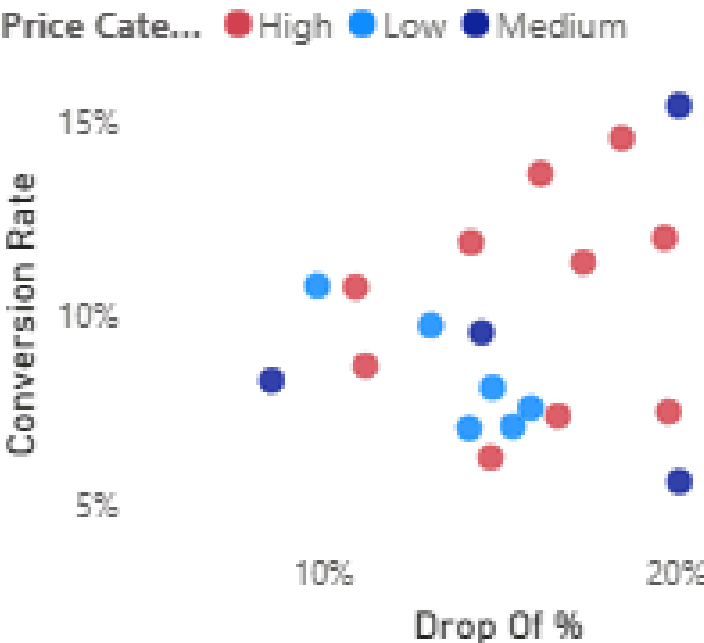
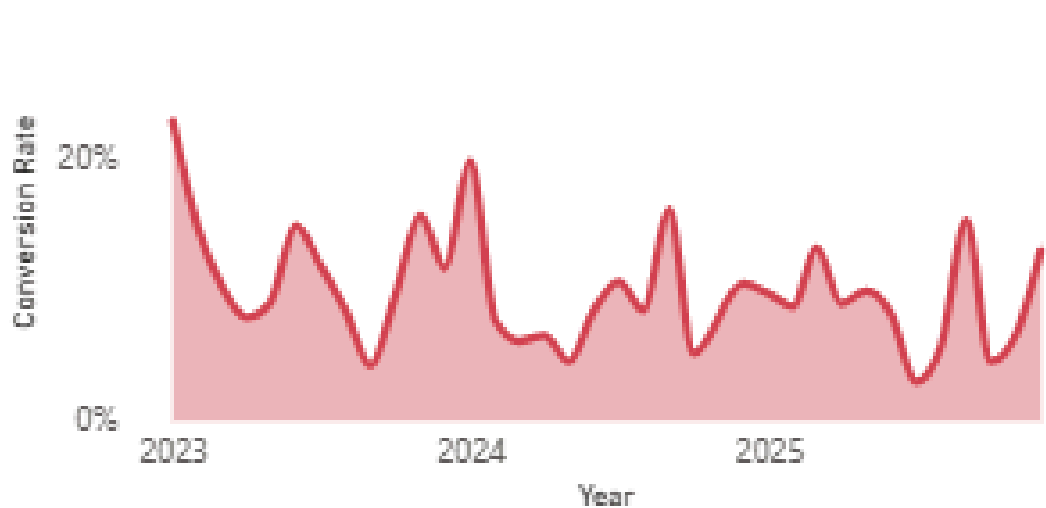
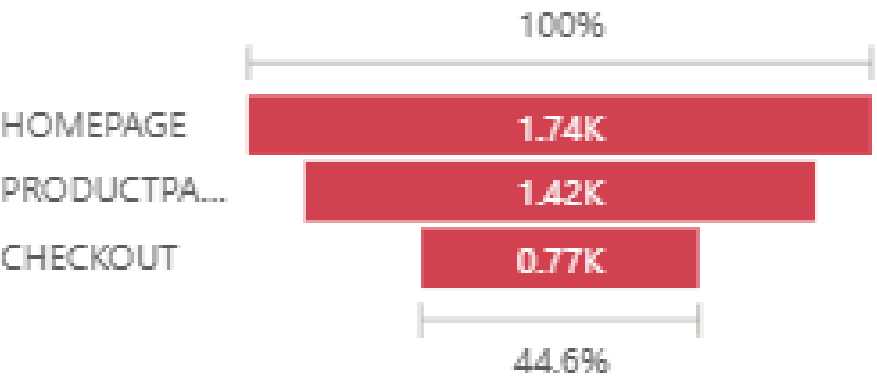
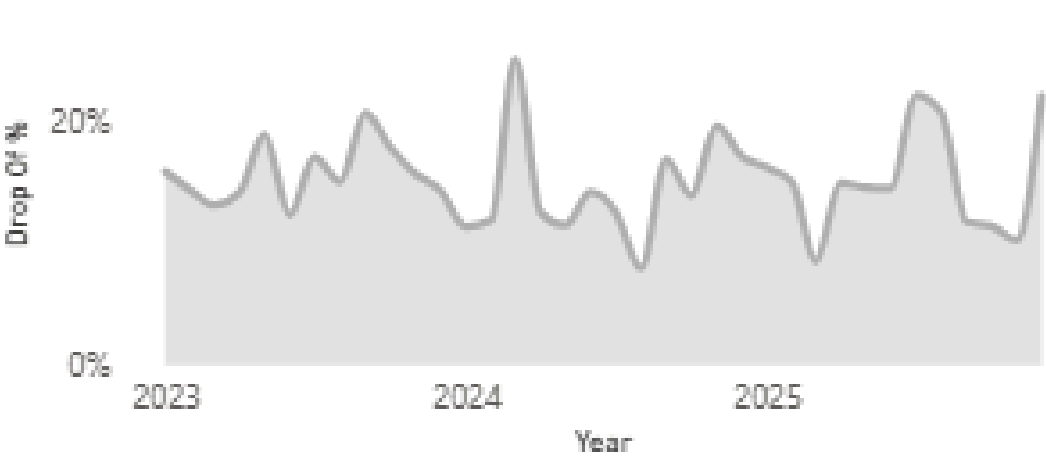
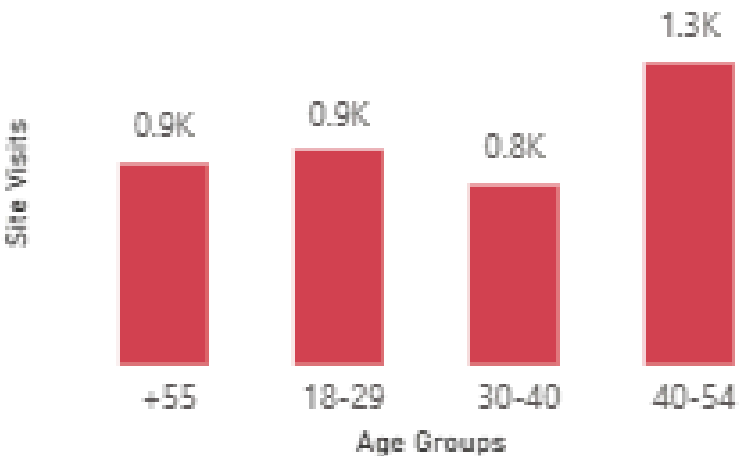
Conversion Rate

3.932K

Total Visits

15.21%

Drop Of %



Engagement

Overview

Conversion

Engagement

Reviews

All



2023

2024

2025

Content Type



- ☐ BLOG
- ☐ SOCIALMEDIA
- ☐ VIDEO

ProductName



- ☐ Baseball Glove
- ☐ Basketball
- ☐ Boxing Gloves
- ☐ Climbing Rope
- ☐ Cycling Helmet
- ☐ Dumbbells
- ☐ Fitness Tracker
- ☐ Football Helmet
- ☐ Golf Clubs
- ☐ Hockey Stick
- ☐ Ice Skates
- ☐ Kayak
- ☐ Running Shoes
- ☐ Ski Boots
- ☐ Soccer Ball
- ☐ Surfboard

23.20%

Engagement Rate

508.64%

Click-Through Rate

9M

Clicks

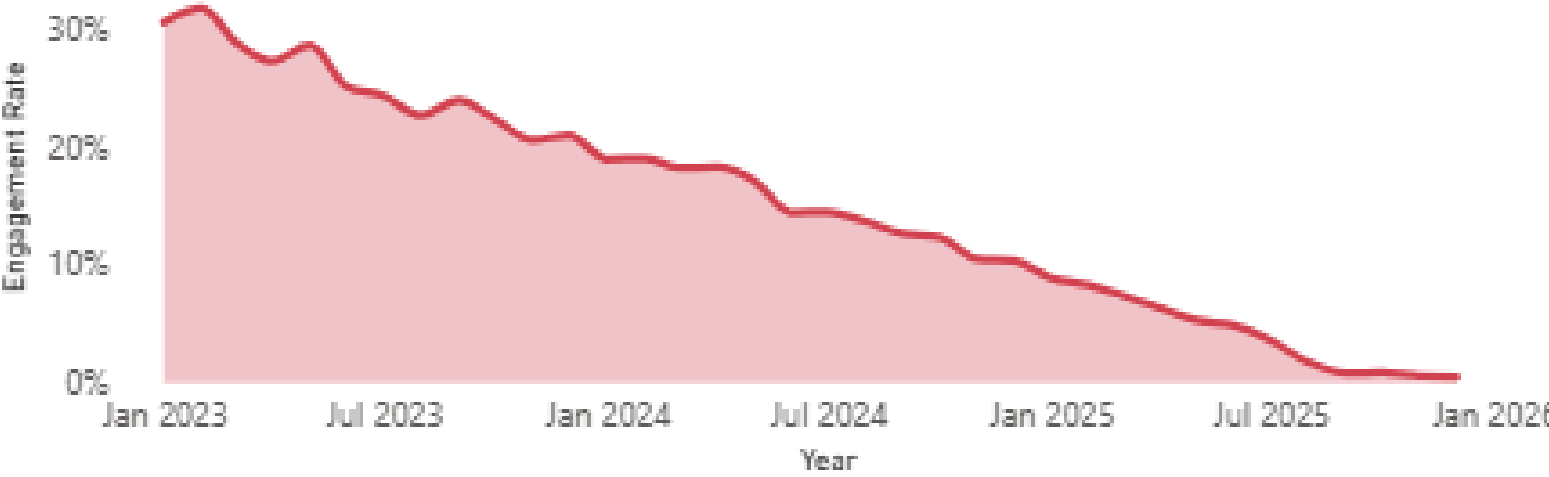
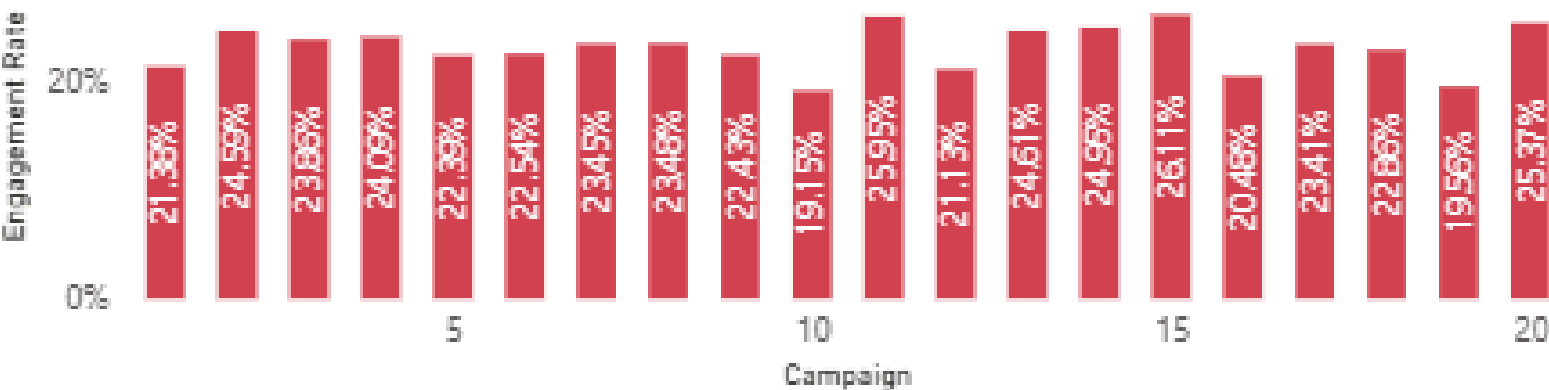
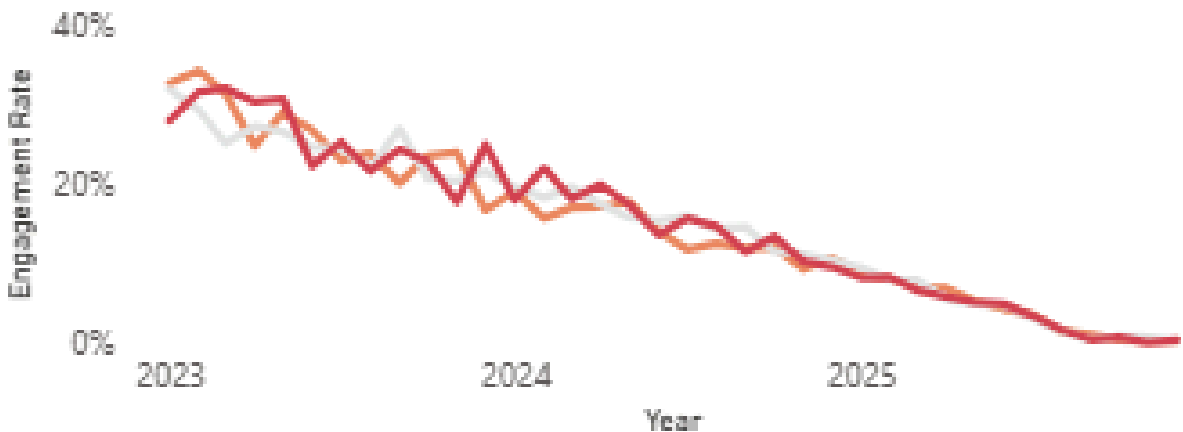
2M

Views

414K

Likes

ContentType ● BLOG ● SOCIALMEDIA ● VIDEO



ProductName	likes	Views	Enga. Rate	CRT
Baseball Glove	20678	86215	23.98%	507.82%
Basketball	23328	99247	23.50%	533.88%
Boxing Gloves	20930	89521	23.38%	494.22%
Climbing Rope	23073	106019	21.76%	486.12%
Cycling Helmet	19885	82235	24.18%	559.66%
Dumbbells	16819	71809	23.42%	537.45%
Fitness Tracker	14239	70853	20.10%	571.56%
Football Helmet	18789	85225	22.05%	478.30%
Golf Clubs	21518	90293	23.83%	525.68%
Hockey Stick	19905	86584	22.99%	508.39%
Ice Skates	19937	91132	21.88%	521.56%
Kayak	21859	91531	23.88%	497.43%
Running Shoes	24604	109267	22.52%	476.23%
Ski Boots	21436	87025	24.63%	521.49%
Soccer Ball	25434	107182	23.73%	482.51%
Surfboard	21569	85673	25.18%	455.58%
Swim Goggles	24111	106171	22.71%	480.25%
Tennis Racket	16463	77225	21.32%	573.35%
Total	414122	1785010	23.20%	508.64%

Customer Reviews

Overview

Conversion

Engagement

Reviews

All

2023

2024

2025

ContentType

- ☐ BLOG
- ☐ SOCIALMEDIA
- ☐ VIDEO

ProductName

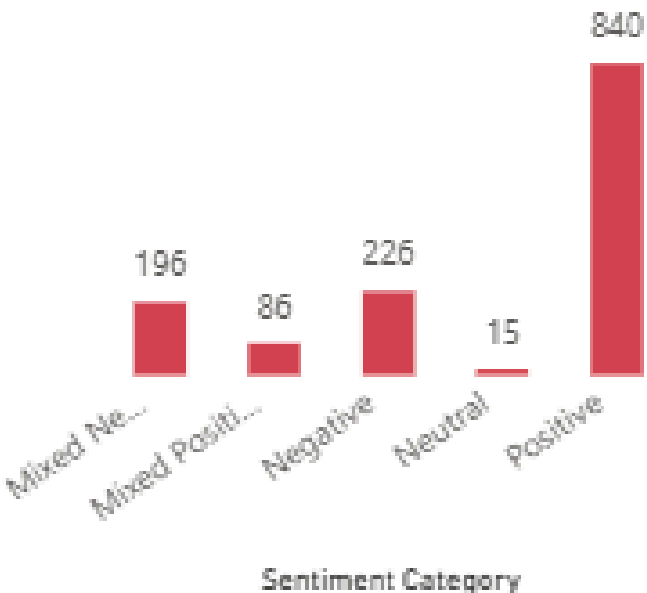
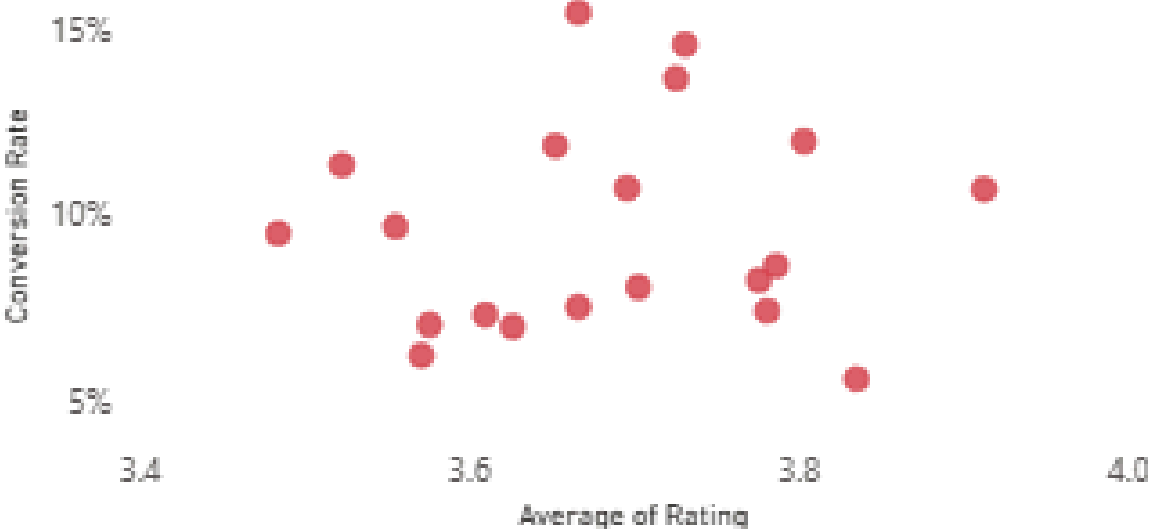
- ☐ Baseball Glove
- ☐ Basketball
- ☐ Boxing Gloves
- ☐ Climbing Rope
- ☐ Cycling Helmet
- ☐ Dumbbells
- ☐ Fitness Tracker
- ☐ Football Helmet
- ☐ Golf Clubs
- ☐ Hockey Stick
- ☐ Ice Skates
- ☐ Kayak
- ☐ Running Shoes
- ☐ Soccer Ball

3.69

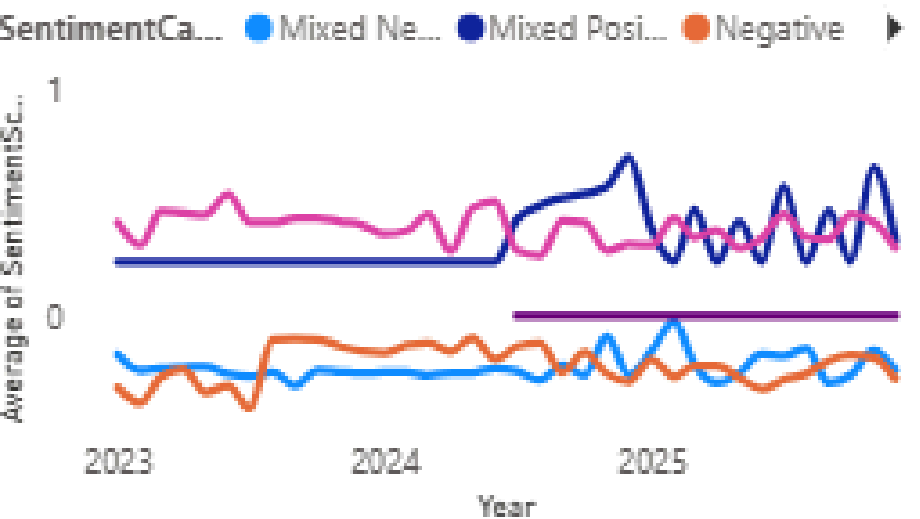
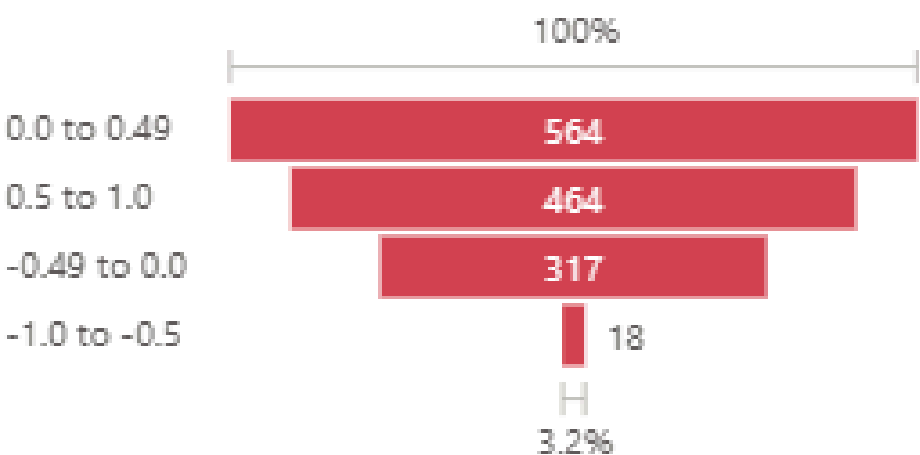
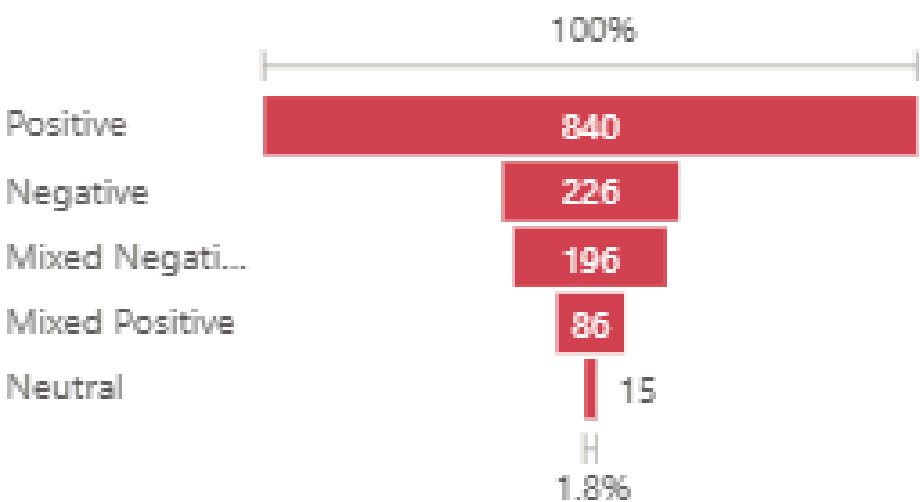
Rating (Average)

0.19

Sentiment Score Avg



ProductName	Score	Rating Avg
Baseball Glove	0.17	3.73
Basketball	0.27	3.78
Boxing Gloves	0.12	3.61
Climbing Rope	0.31	3.91
Cycling Helmet	0.23	3.80
Dumbbells	0.16	3.63
Fitness Tracker	0.22	3.78
Football Helmet	0.19	3.70
Golf Clubs	0.18	3.48
Hockey Stick	0.17	3.67
Ice Skates	0.20	3.70
Kayak	0.23	3.79
Running Shoes	0.20	3.57
Ski Boots	0.25	3.73
Soccer Ball	0.14	3.67
Total	0.19	3.69



INSIGHTS

Conversion Insights

Checkout Page

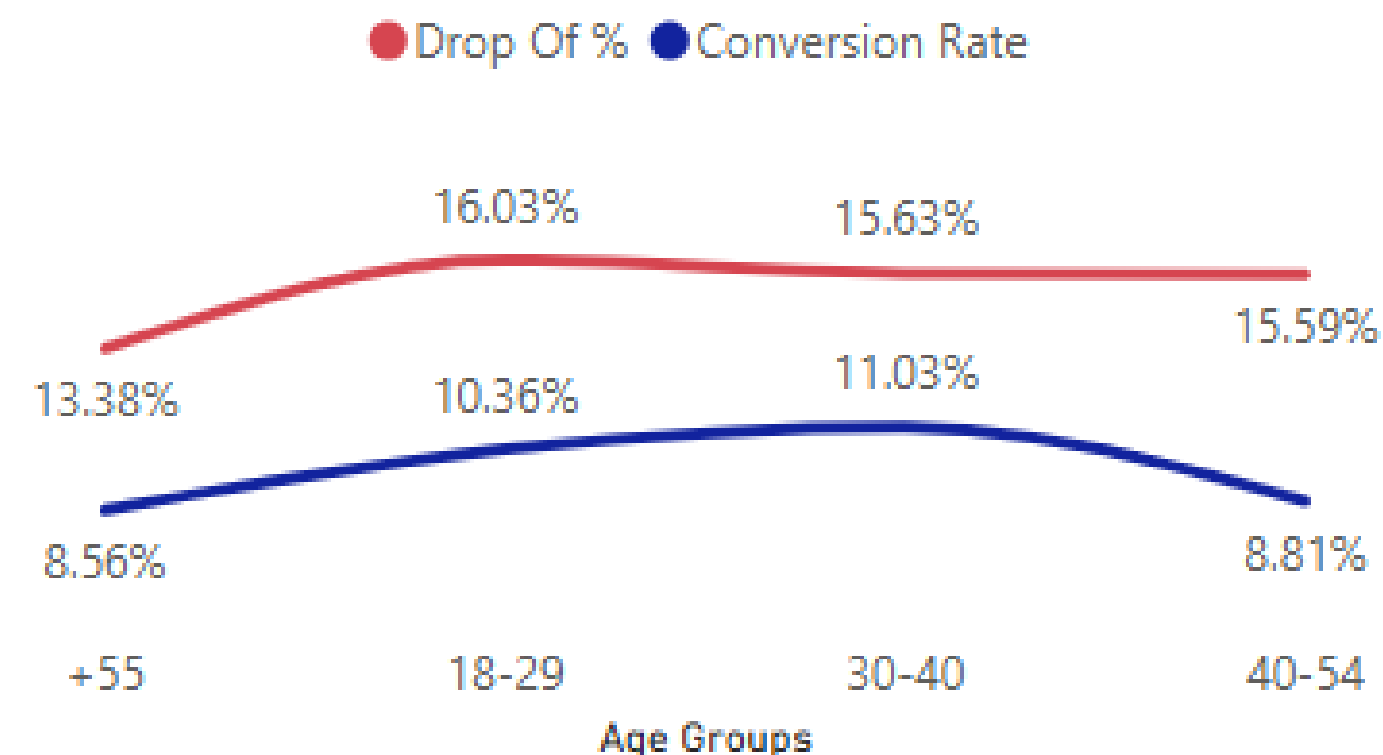
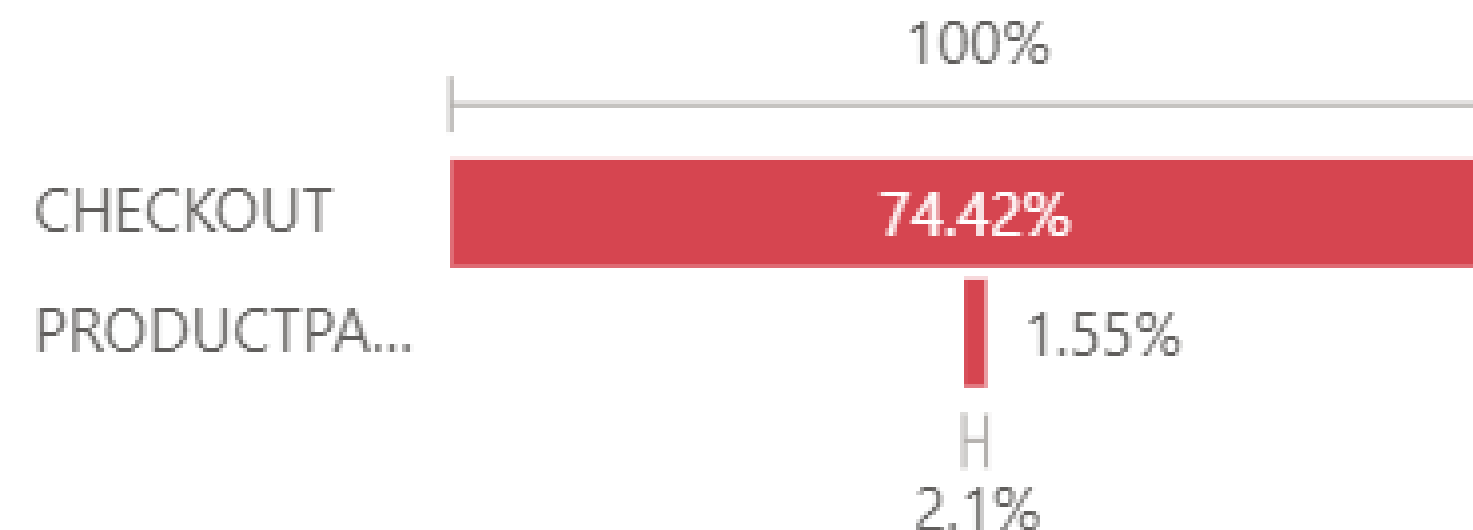
Drop-off Percentage is: 74.42%

This indicates a major point of friction in the customer journey that is directly impacting sales.

The 18-29 age group has the highest drop-off rate: 16.03%

suggesting potential issues with the user experience or marketing messaging for this specific demographic

Drop Off % Per Stage



Conversion Insights

**High Traffic (3.932k),
Low Conversion(9.75%)**

these visits are not translating into sales at the desired rate, particularly at the final stage of the funnel.

9.57%

Conversion Rate

3.932K

Total Visits

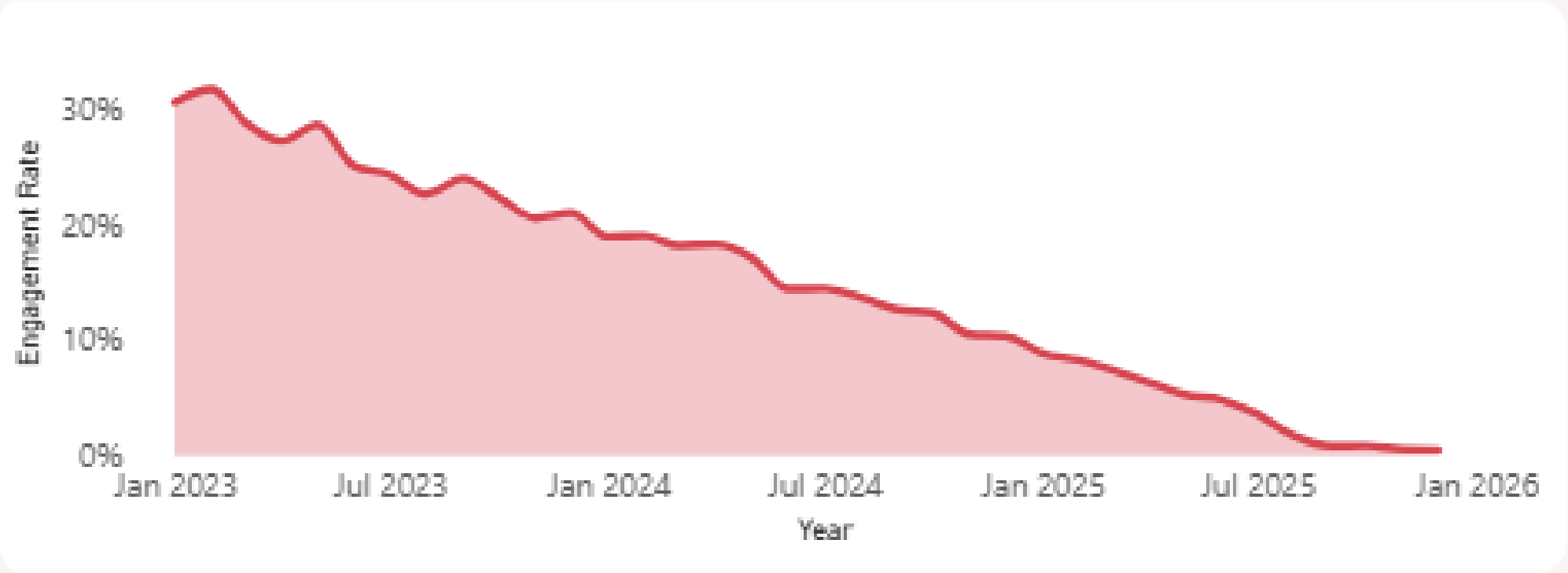
15.21%

Drop Of %

Engagement Insights

Declining Engagement Rate over time

indicating that marketing content is becoming less effective at holding customer attention



High Click-Through Rate (CTR)

This suggests that marketing campaigns are effective at generating initial interest and getting users to click, but the content or site experience is failing to retain their interest.

503.89%

Click-Through Rate

Customer Feedback Satisfaction Insights

Customer rating Avg. is **3.69**,
Sentiment score Avg. is **0.19**

Indicating a mix of positive and negative feedback. While most reviews are positive, there are a significant number of mixed or negative reviews that also need to be addressed.

3.69

Rating (Average)

0.19

Sentiment Score Avg

Product-Specific Issues

Several products have a lower average rating than the overall average

ProductName	Score	Rating Avg
Ice Skates	0.20	3.70
Hockey Stick	0.17	3.67
Soccer Ball	0.14	3.67
Surfboard	0.12	3.65
Dumbbells	0.16	3.63
Boxing Gloves	0.12	3.61
Volleyball	0.12	3.58
Running Shoes	0.20	3.57
Tennis Racket	0.18	3.56
Yoga Mat	0.17	3.52
Golf Clubs	0.18	3.48
Total	0.19	3.69

RECOMMENDATIONS

Recommendations to the Marketing Manager

1- Prioritize Conversion Rate Optimization (CRO) at the Checkout Stage

Insight: The 74.42% drop-off rate at Checkout Page

Recommendation: Immediately launch a project to conduct a full audit of your checkout process. Look for potential roadblocks such as:

- Lack of guest checkout options
- Limited payment methods
- Complex or lengthy forms
- Unexpected shipping costs or fees
- Slow page loading time

2- Optimize Campaigns Based on Performance

Insight: The campaign-level data shows varying engagement rates

Recommendation: Use this data to identify your top and bottom-performing campaigns. Allocate more budget to the most effective campaigns and either pause or completely redesign the underperforming ones. Implement an A/B testing strategy for new campaigns to ensure they are optimized from the start

Recommendations for the Customer Experience Manager

1- Conduct a Deep Dive into Low-Rated Products

Insight: Golf Clubs and Kayak, have ratings and sentiment scores below the overall average of 3.69.

Recommendation: Categorize the feedback to identify common pain points (e.g., durability, size issues, misleading product descriptions, etc.). Share this information with the product development or procurement teams so they can make direct improvements or adjust the product descriptions to set clearer expectations.

2- Create a Feedback Loop with Marketing

Insight: The decline in engagement and conversion is linked to customer dissatisfaction.

Recommendation: Work with the marketing team to use customer feedback as a tool for new campaigns

3- Proactively Engage with Reviews:

Insight: The significant number of "Mixed" and "Negative" reviews presents an opportunity

Recommendation: Acknowledge customer pain points publicly and offer solutions.

Final Recommendation for All Stakeholders

I recommend establishing a regular, cross-functional meeting between the Marketing, Customer Experience, and Product teams. Use these dashboards as a shared source of truth to:

- Identify the root causes of underperformance.
- Prioritize initiatives based on data.
- Track the impact of changes over time.

By working together, you can transform these data points into a cohesive strategy for growth.

LET'S **WORK TOGETHER!**



+201119429139



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