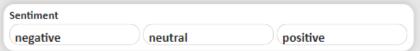


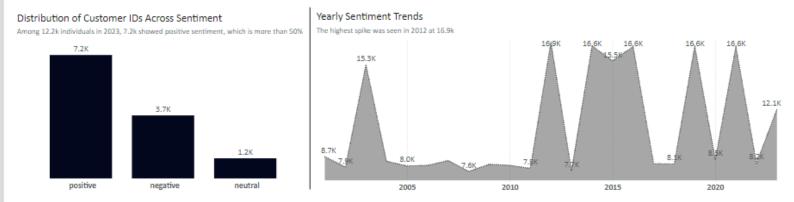
# Sentiment Analysis and Trends Dashboard

CY 59.8%
PY: 60.7% (-1.55%)
Positive Sentiment Rate

CY 2023 **30.5%** PY: 29.8% (+2.28%) Negative Sentiment Rate CY **12.1K** 2023 PY: 8.2K (+47.42%) Total Reviewers CY 2023 Py: 4.4 (-0.62%) Average Rating



## **Overall Customer Sentiment Analysis**



The total number of reviewers in the current year (2023) is 12.6k, representing an increase of almost 48% compared to the previous year. Among these reviewers, nearly 7.2k expressed positive sentiment towards the products, indicating a strong satisfaction level. However, 3.7k reviewers conveyed negative sentiment, which is a point of concern and highlights areas for potential improvement.

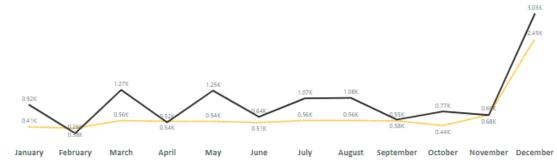
From 2001 to 2023, customer sentiment has exhibited a rollercoaster trend, with significant fluctuations over the years. The highest sentiment was recorded in 2012, with 16.9k reviewers expressing their opinions. Despite the ups and downs, the overall trend from 2001 to 2023 indicates that customers have generally shown positive sentiment towards the products.

To further improve customer satisfaction, it is crucial to enhance customer support by addressing common issues promptly, invest in product quality to meet customer expectations, and increase engagement with customers by responding to their reviews and showing that their opinions matter.

### Comparison of Trends: PY 2022 vs CY 2023

Sentiment in 2023 fluctuated, peaking in December with generally higher levels than 2022, while February, April, September, and November mirrored 2022 levels

Year ..... 2022 - 2023



Throughout the year 2023, sentiment records showed fluctuations, with most months showing higher sentiment records than in 2022. However, sentiment records in February, April, September, and November were similar to those in 2022. Both years experienced an upward trend in sentiment, peaking in December. The end-of-year holiday season typically sees a surge in positive sentiment due to holiday promotions and increased customer purchases.

To ensure consistent customer satisfaction during the dips of 2023, monitor delivery and product quality closely. Timely address any issues related to delivery timeliness and product quality to maintain high customer satisfaction levels throughout fluctuations in sentiment.

### Geospatial Analysis of Customer Sentiment

### Sentiment Records by Country

Average of latitude, Average of longitude and Count of reviewer\_id by code



There are stores across 135 countries worldwide, with the highest number of sentiment records observed in the US, Canada, Australia, and the United Kingdom. The US holds the highest number of records at 10840 in 2023, making it crucial to monitor the sentiment trends of customers from this region.

Develop personalized marketing campaigns based on sentiment analysis results. Tailor promotions, messages, and offers to resonate with the sentiment expressed by customers from regions like the United States, Canada, Australia, and more.

The results show that approximately 60% of the reviewers expressed positive sentiments towards the product, while around 30% showed negative sentiments in 2023. Some stores in regions like Iceland, Bulgaria, and Canada exhibited negative sentiment, whereas Finland and Bahrain showed positive sentiment. Since most reviewers are from the US and Canada, it is essential to focus on these regions to improve customer support strategies and adjust product

offerings based on sentiment trends.

### Global Sentiment Distribution by Country



in

Icons: Flaticon



## Sentiment Analysis and Trends Dashboard

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CY 2023

**30.5%** PY: 29.8% (+2.28%) Negative Sentiment Rate CY **12.1K** 2023 PY: 8.2K (+47.42%) Total Reviewers

CY 2023 **4.3** PY: 4.4 (-0.62%) Average Rating

## **Temporal Analysis of Customer Sentiment**

#### Yearly Sentiment Records and YoY Changes

Highest sentiment was recorded in 2012 with 16.9k, which is 40% more than in 2023

V	Casting at Daniel	VOV9/ Channel	VOVE /B-
Year ▼	Sentiment Record	101% Change	101% (Ba
2023	12.1K	47.4%	
2022	8.2K	-50.6%	
2021	16.6K	96.0%	
2020	8.5K	-49.1%	
2019	16.6K	103.8%	
2018	8.1K	-0.2%	
2017	8.2K	-50.7%	
2016	16.6K	6.6%	
2015	15.5K	-6.5%	
2014	16.6K	117.0%	
2013	7.7K	-54.6%	
2012	16.9K	115.5%	
2011	7.8K	-2.7%	

Sentiment	negativ	/e	neuti	ral	positi	ve
Year	YOY% Change Y	OY% (Bar)	YOY% Change	YOY% (Bar)	YOY% Change	YOY% (Bar)
2023	50.8%		51.5%		45.1%	
2022	-50.5%		-52.2%		-50.4%	
2021	98.6%		92.5%		95.3%	
2020	-50.4%		-47.2%		-48.7%	
2019	103.1%		102.3%		104.3%	
2018	-0.6%		-4.9%		0.7%	
2017	-49.7%		-48.3%		-51.6%	
2016	5.0%		2.2%		8.2%	
2015	-5.4%		-1.8%		-7.8%	
2014	115.5%		95.7%		121.6%	
2013	-54.1%		-51.2%		-55.4%	
2012	118.2%		121.1%		113.3%	

From 2001 to 2023, sentiment records have shown significant fluctuations, with 2012 recording the highest sentiment at 16.9k. The year-on-year change reveals that the highest sentiment record occurred in 2014, showing a 117% increase compared to the previous year. Positive, negative, and neutral sentiments collectively increased by 50% compared to the previous year. The most substantial increases in negative and neutral sentiment were observed in 2012, while the most significant increase in positive sentiment occurred in 2014 compared to the previous year.

Implement targeted campaigns highlighting positive customer experiences and success stories. Enhance customer service interactions to focus on proactive problem-solving and personalized support.. Monitor customer feedback channels regularly to identify issues promptly. Implement robust feedback mechanisms to address concerns and improve service delivery.

#### Monthly Sentiment Records and MoM Changes

Highest positive sentiment was recorded in March, while the highest negative sentiment was recorded in May

Year Sentiment	Sentiment Record	2023 MOM% check by Month
negative	3.7K	<b>~~~~</b>
neutral	1.2K	<b>\\\\</b>
positive	7.2K	<b>\\\\</b>

In the current year 2023, the highest increase in negative sentiment was observed in May, which is approximately 140% higher than the previous year. Similarly, the highest spikes in positive and neutral feedback were recorded in March.

Poor customer service experiences, delays in support resolution, and potential product defects or quality concerns could contribute to higher dissatisfaction. Regular monitoring of these aspects is crucial to maintain customer

## Review Categorization and Analysis

Customer reviews are essential for sentiment analysis. Key repetitive words from customer feedback are identified and highlighted to gauge sentiment

account printing appreciated sizing customer company fantastic nice purchase first. accidentally awesomes amazingly Issues advertised Service amazed artwork anime appreciate beautiful design designs poduct quick shipping high deliveryprint quickly artist good actual quality timely unique variety fast happy adorable received accurate experience awesome ordered amazing perfect art support

From customer feedback in 2023, several repetitive keywords have been identified. Positive keywords like 'amazing,' 'quality,' 'product,' 'great,' and 'excellent' indicate a positive sentiment among customers. On the other hand, negative keywords such as 'accidentally,' 'wrong,' and 'issues' highlight areas of concern that need to be addressed.

Focus on maintaining high standards for products customers frequently praise. Improve training and response times to address common issues related to 'wrong' or 'accidental' experiences.

Clearly communicate product features and usage instructions to reduce misunderstandings.

In the overall data, 278k sentiments were recorded, but approximately 13% of reviewers did not provide any feedback. Actively encourage customers to provide feedback as it plays a crucial role in sentiment analysis, helping to improve products and services based on customer experiences.

