

# App Store Reviews



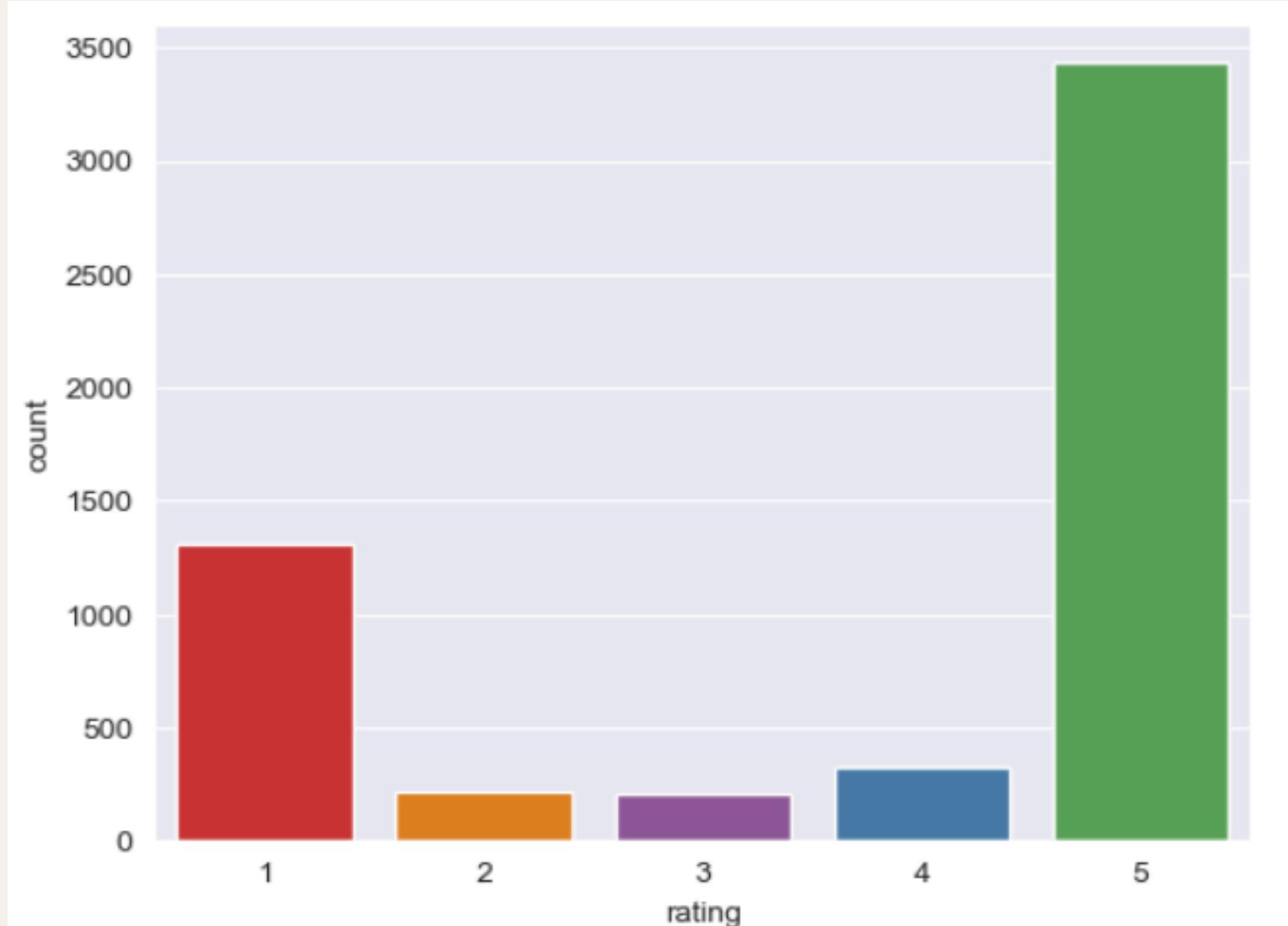
# Data Collected

-Web scraped using [app\\_store\\_scraper](#) library

<b>Duration</b>	Jan 2014 - Oct 2024
<b>Total No of reviews</b>	5491

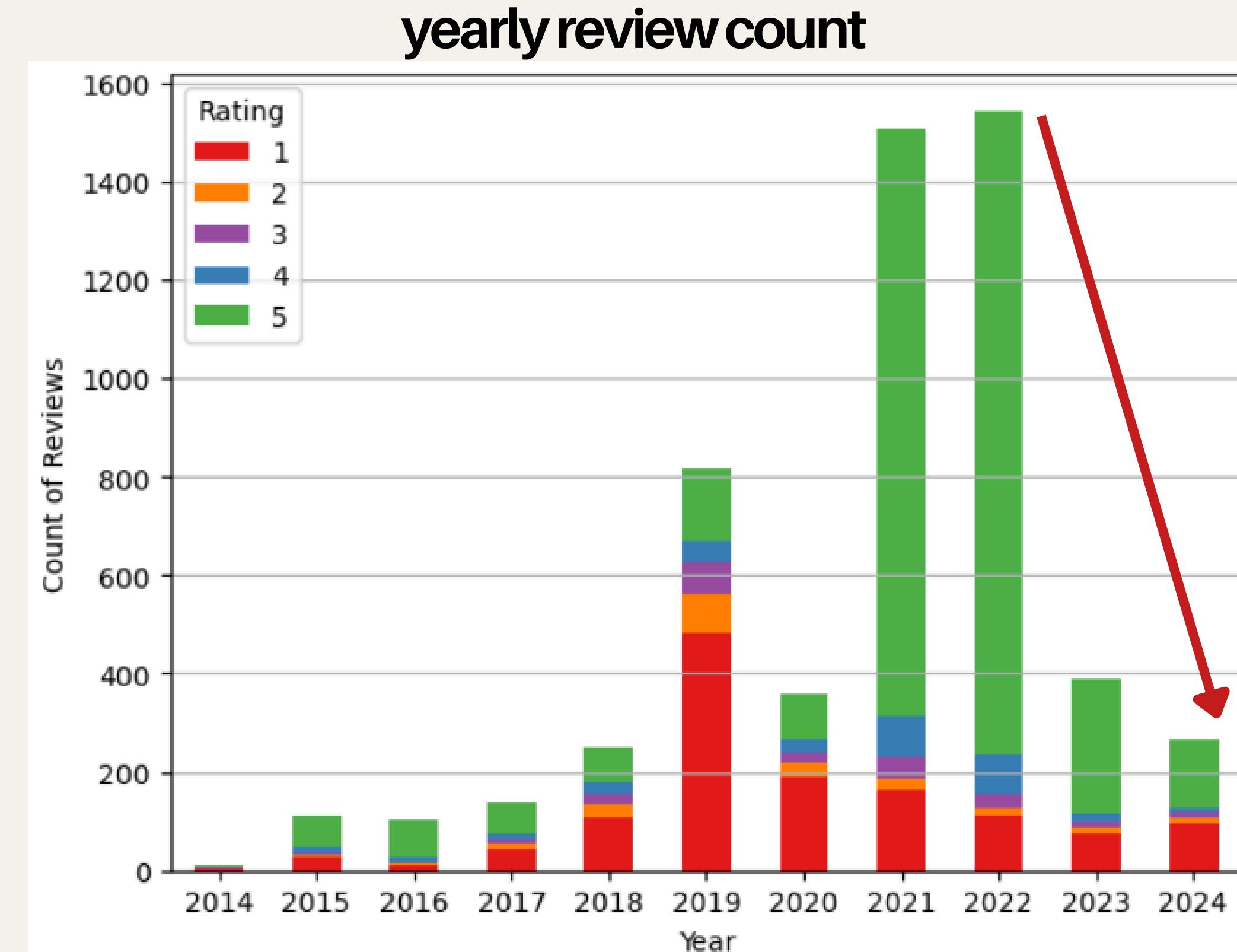
	date	developerResponse	review	rating	isEdited	title	userName
0	2021-03-19 01:09:06	{'id': 24837237, 'body': 'The Lazada team woul...}	Have been using Lazada & Redmart for quite a f...	5	False	User experience n feedback	fionayolip
1	2021-09-06 01:29:08	{'id': 24972282, 'body': 'Hey,SriMahakali! Tha...}	The app for the online purchase is good and ef...	5	False	Shopping Experience with LAZADA	SriMahakali
2	2024-05-13 06:19:48	{'id': 43911525, 'body': 'Lazada xin lỗi vì súf...}	The app was alright, however, some merchants a...	1	False	The customer service for dispute was so bad	Michelle_JJ
3	2022-06-20 05:21:31	{'id': 30426482, 'body': 'Hi, kspeeder We sinc...}	The wallet is absolutely pointless, why put mo...	1	True	Bad ads and pointless wallet	kspeeder
4	2024-04-05 04:08:17	{'id': 43111766, 'body': 'Hello 1Ace95, We are...}	I had been using Lazada for few years and had ...	5	False	I enjoy buying stuff on Lazada 😊	1Ace95

Count of each rating



# Yearly Timeline Analysis

- Generally increasing trend of no. of customer reviews up to 2022 except 2020
- 2022 onwards, decreasing trend of no. of customer reviews
- Potentially lesser people using the app?



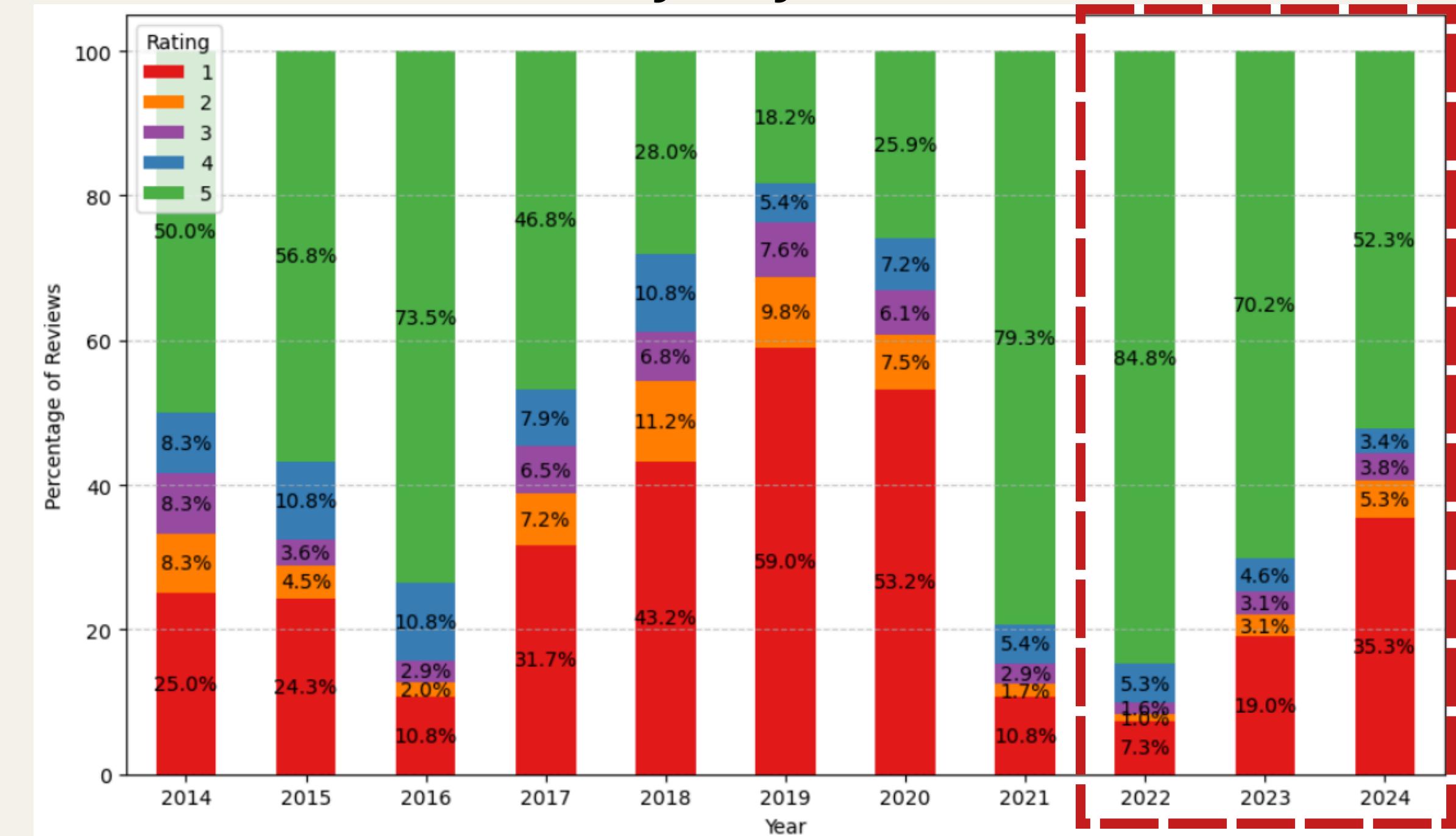
# Normalized Yearly Timeline Analysis

- Most % of rating 5 in 2022
- Most % of rating 1 in 2024

2022 onwards

- Despite decreasing no of reviews, Increasing trend of % of reviews with rating  $\leq 3$ , especially rating 1

Normalized yearly review count



# Sentiment Analysis

**Why perform sentiment analysis?:** Validate Rating Accuracy and Justification, Ratings alone don't always reflect the true sentiment of a review

**Tools:** VaderSentiment Library

**Why?:** Trained on Social Media Text containing slang words, emojis, emoticons etc

neg	neu	pos	compound
0.00	0.796	0.204	0.9934
0.07	0.699	0.232	0.9867

Compound	Sentiment
$\geq 0.05$	Positive
$> -0.05 \text{ and } < 0.05$	Neutral
$\leq -0.05$	Negative

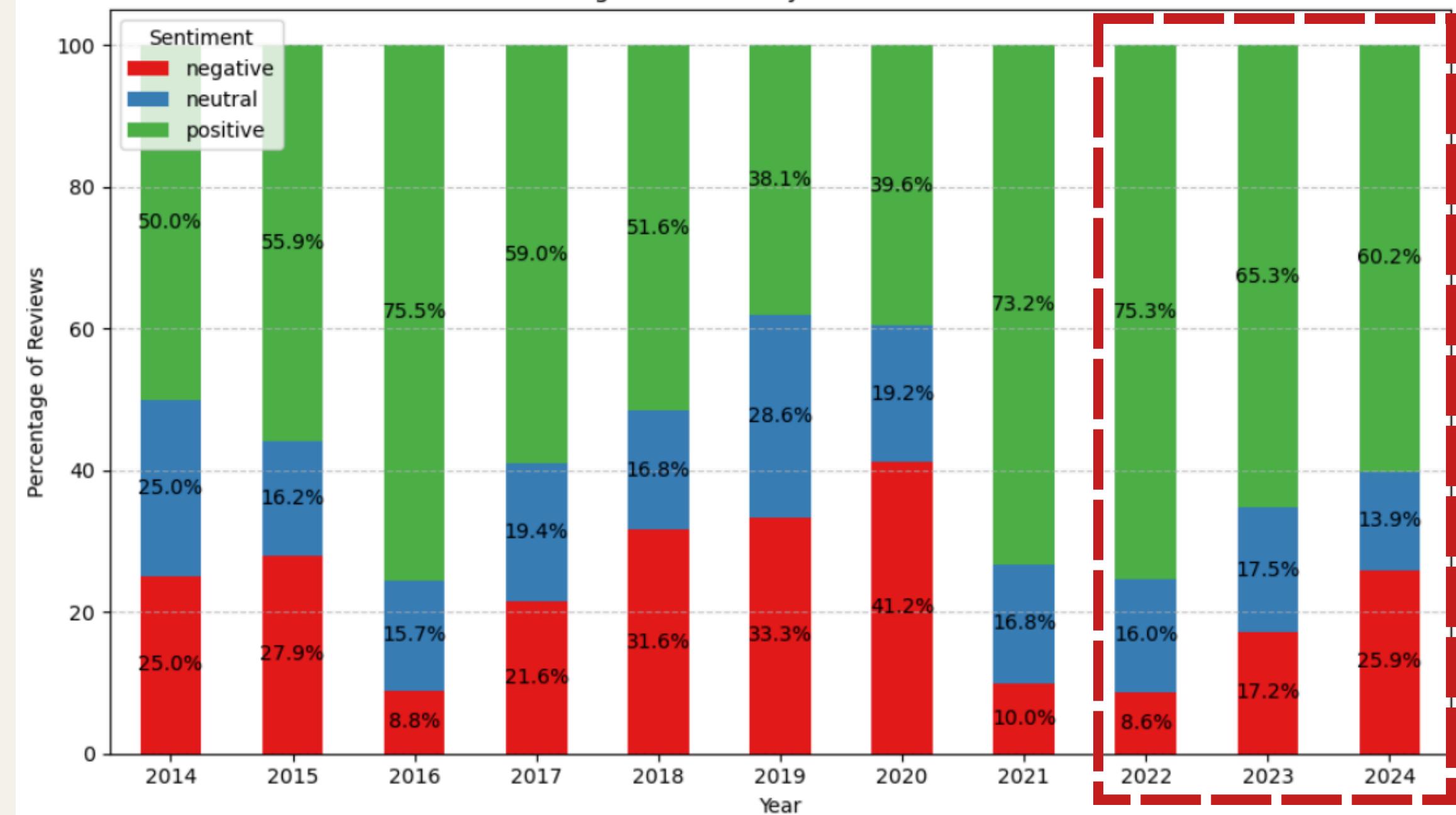
# Normalized Yearly Sentiment Timeline Analysis

- Exact same trend as yearly rating timeline analysis
- Most % of Negative Sentiment in 2024

2022 onwards

- Despite Decreasing no of reviews, Increasing trend of % of Negative sentiments
- Increasing % of unhappy users

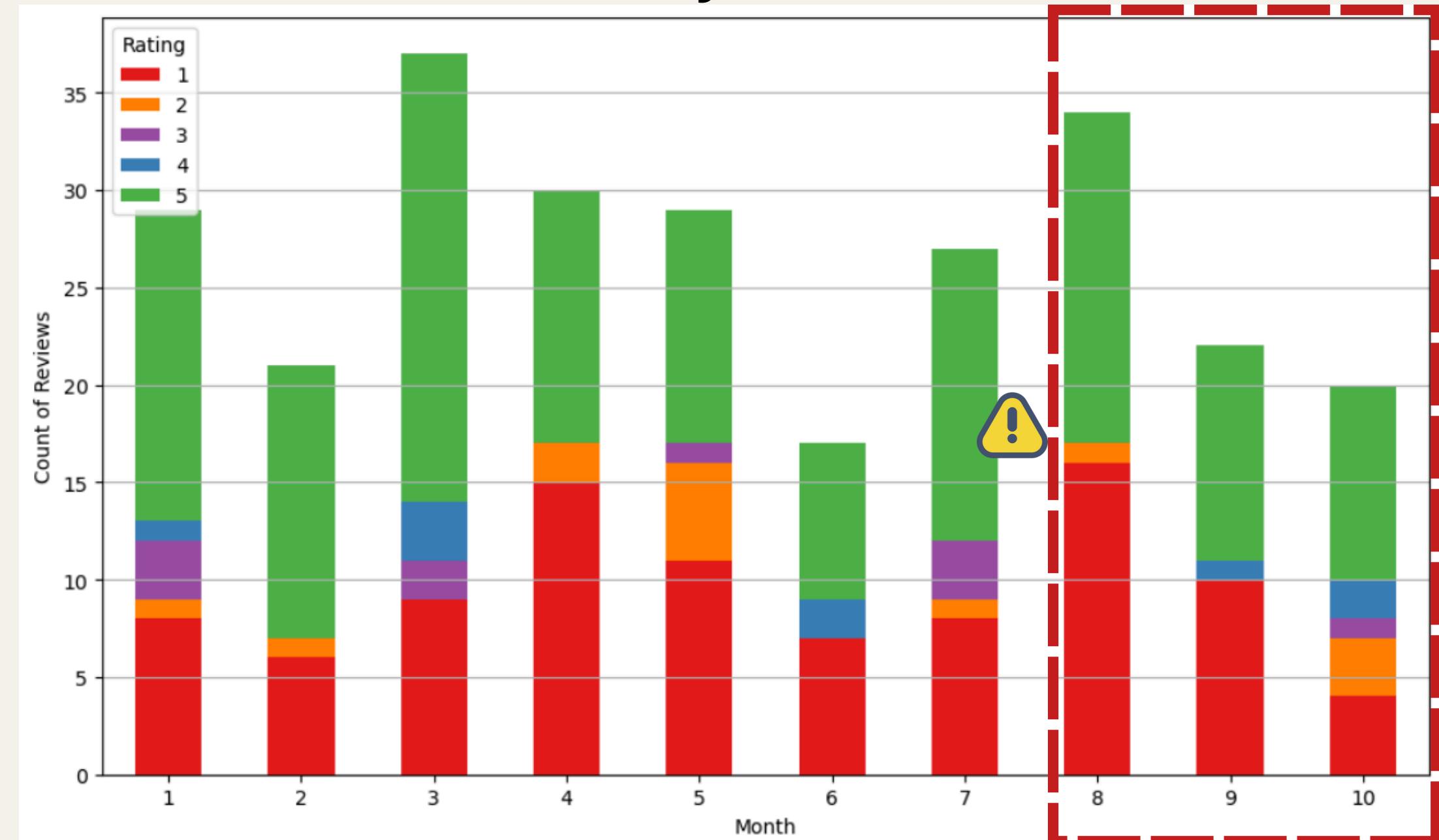
Normalized yearly Sentiment count



# Monthly Timeline Analysis

- **Decreasing** no. of reviews for past 3 months
- No. of reviews with **rating 5** is still **leading** every month

Monthly review count

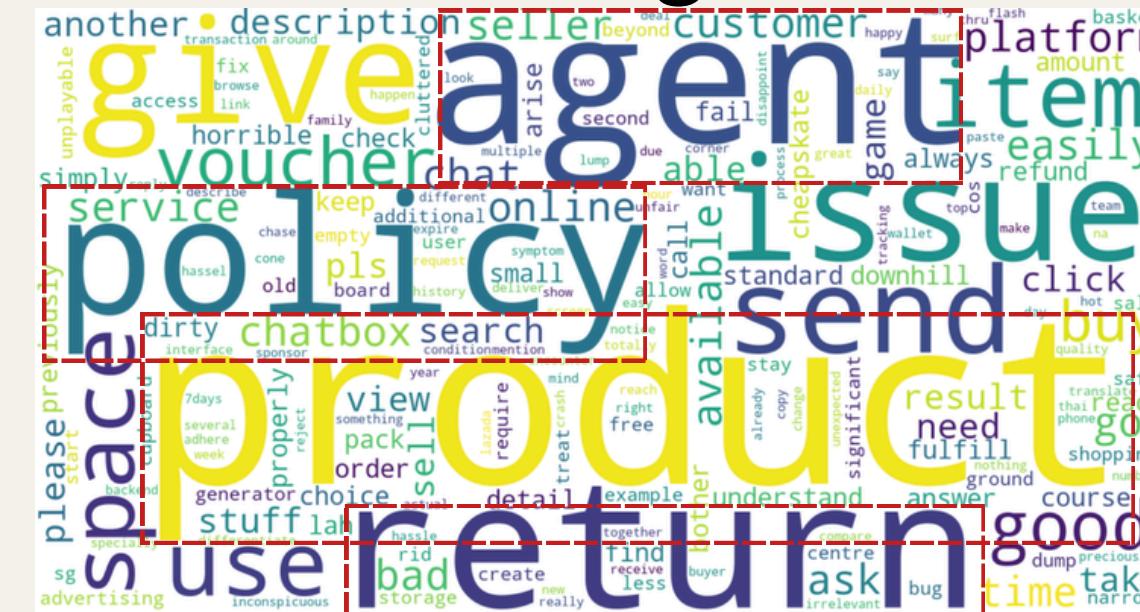


# Word Cloud

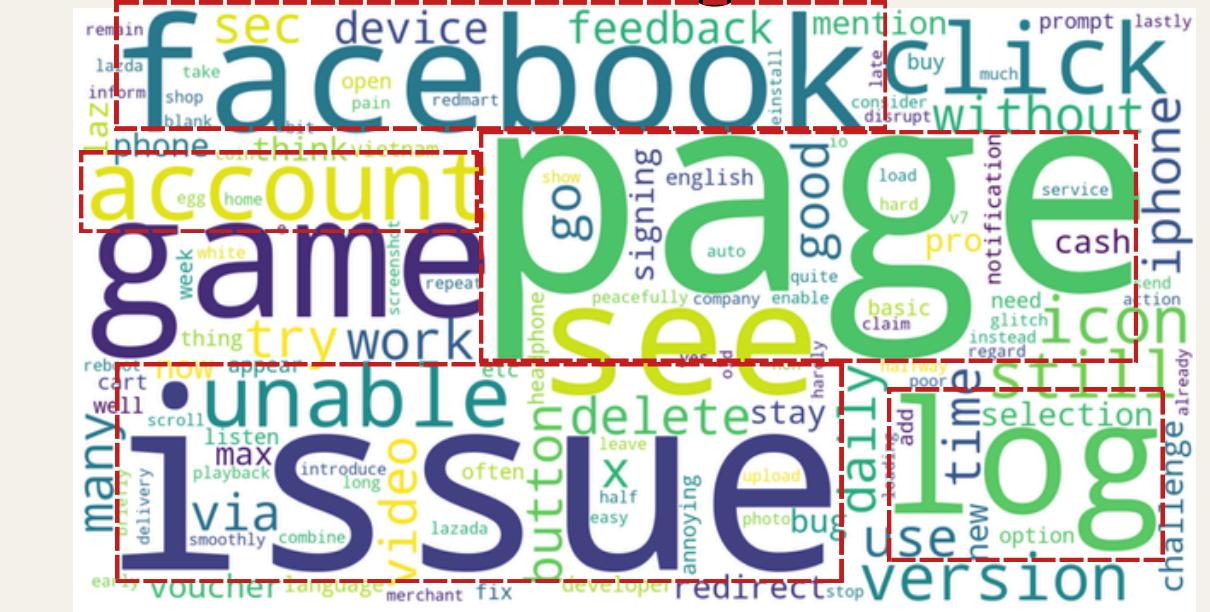
# Rating 1



# Rating 2



# Rating 3



# Rating 4



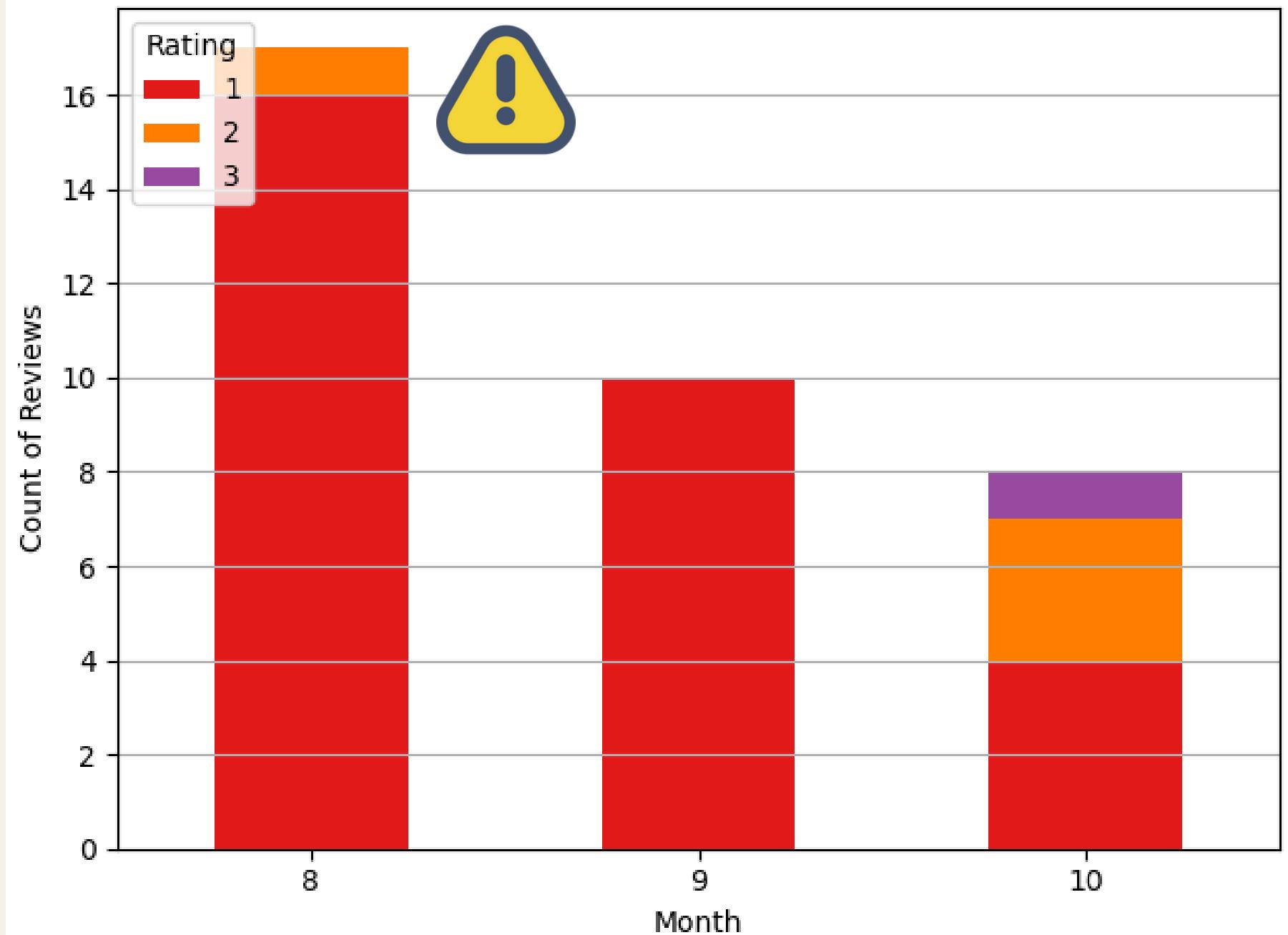
# Rating 5



# Bad reviews by most recent 3 months

- **Highest** no. of bad reviews on August
- **Decreasing** no. of bad reviews
- Topic Modelling on these data as it **is most recent and most relevant for real-time analysis**

Most recent 3 months review with rating  $\leq 3$  count



# Topic Modelling

Help identify customer areas of dissatisfactions and provide area of focus for improvement

## Toolset:

1. Nltk (Stopwords)
2. Spacy (text preprocessing eg Lemmatizer)
3. Gensim (for doc2bow and LDA)
4. pyLDAvis (Visualization)



## How to determine the best number of topics?

- Train LDA Model on topic ranging from 3 to 15
- Determine the top 5 topic number with highest coherence score
- Plot Intertopic Distance Map and pick whichever has most separated topics

```
Number of Topics: 3, Perplexity: -7.5598, Coherence Score: 0.4072
Number of Topics: 4, Perplexity: -7.4910, Coherence Score: 0.3891
Number of Topics: 5, Perplexity: -7.4363, Coherence Score: 0.3680
Number of Topics: 6, Perplexity: -7.3616, Coherence Score: 0.3695
Number of Topics: 7, Perplexity: -7.3402, Coherence Score: 0.3647
Number of Topics: 8, Perplexity: -7.2153, Coherence Score: 0.3138
Number of Topics: 9, Perplexity: -7.1829, Coherence Score: 0.3662
Number of Topics: 10, Perplexity: -7.2046, Coherence Score: 0.5800
Number of Topics: 11, Perplexity: -7.2477, Coherence Score: 0.3983
Number of Topics: 12, Perplexity: -7.2584, Coherence Score: 0.5623
Number of Topics: 13, Perplexity: -7.1237, Coherence Score: 0.4697
Number of Topics: 14, Perplexity: -7.1399, Coherence Score: 0.4257
Number of Topics: 15, Perplexity: -7.1881, Coherence Score: 0.4064
```

# Topic Modelling

No. of topic = 10 & No. of words = 10

Coherence Score: 0.58

Perplexity: -7.20

Topics found via LDA:

Topic #1:  
voucher free\_shippe customer refund platform voucher\_page see claim online give

Topic #2:  
log able team ask item go suddenly fail back whole

Topic #3:  
seller order agent item ask product say customer\_service get keep

Topic #4:  
never make check money demand back refund time million monie

Topic #5:  
refund fake try seller help message clear read click refuse

Topic #6:  
new phone number view search click result wrong buy bother

Topic #7:  
popup shopping focused update regard potentially team user forward ve

Topic #8:  
card bank voucher know help give system show get different

Topic #9:  
voucher voucher\_page use miss extremely item scam many buggy disrupt

Topic #10:  
refund process seller ask order wrong cancel day date platform



# Insights Derived

## Areas of Improvement

Topics found via LDA:

Topic #1:  
voucher free\_shippe customer refund platform voucher\_page see claim online give

Topic #2:  
log able team ask item go suddenly fail back whole

Topic #3:  
seller order agent item ask product say customer\_service get keep

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refund fake try seller help message clear read click refuse

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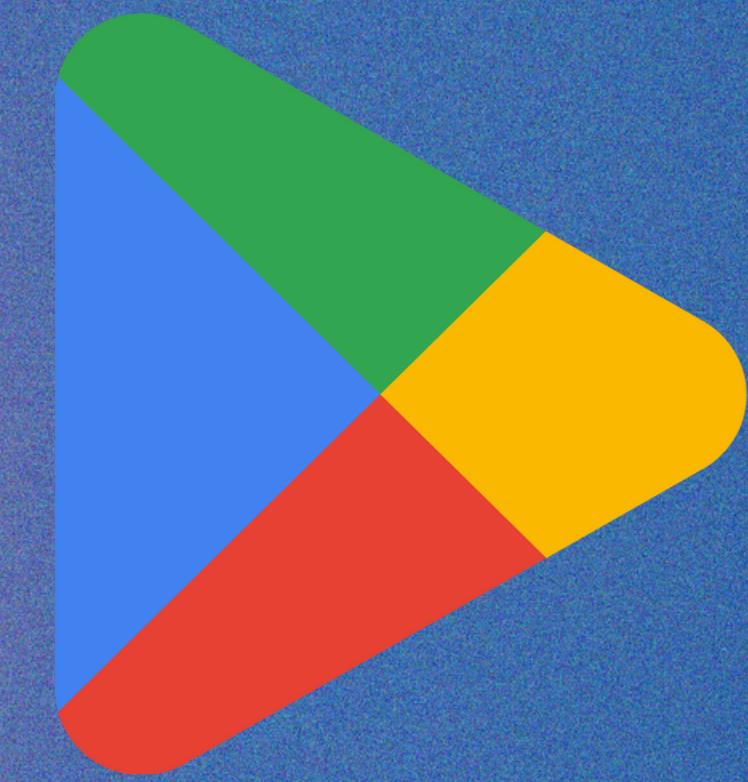
### Customer Service

- **Voucher & Refund Issues:** Frustrations with claiming and using vouchers, refund difficulties
- **Seller & Product Issues:** Delays in responses, product quality concerns, and tracking issues.
- **Refund Demands & Money Issues:** Slow or denied refunds for faulty products.
- **Fake Products & Refund Refusals**
- **Payment & Card Issues:** Card transaction errors, missed discounts, and voucher problems.
- **Voucher Misses & Scammers:** Missing vouchers and many potential scams
- **Refund & Order Problems:** Long refund times and frequent order issues.

### Shopping Experience

- **App/System Failures:** App crashes and login issues disrupting shopping.
- **Disruptive Pop-ups:** From excessive promotions.

# Google Play Store Reviews



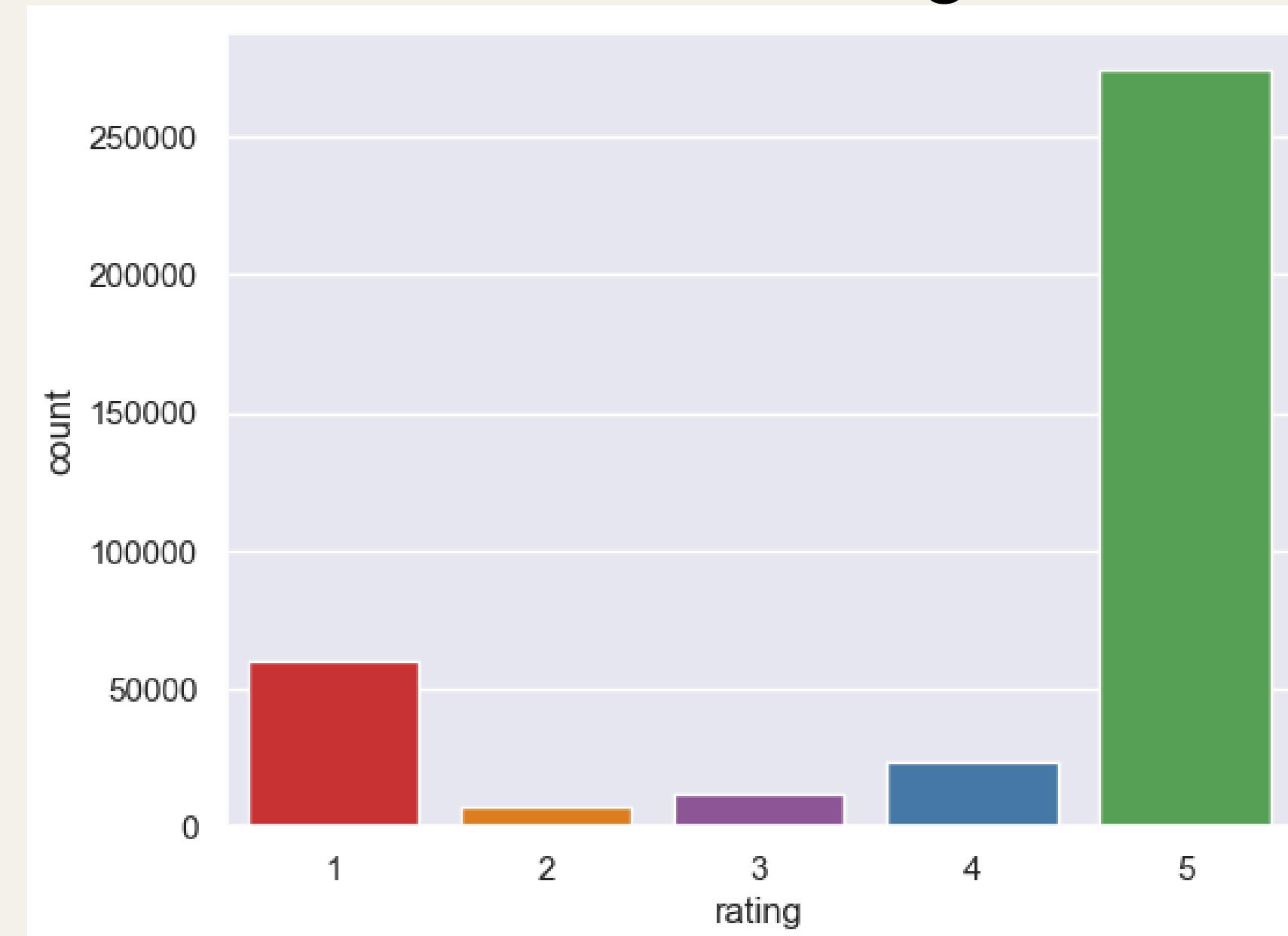
# Data Collected

-Web scraped using `google_play_scraper` library

<b>Duration</b>	Jan 2021 - Oct 2024
<b>Total No of reviews</b>	376,939

	review	date	rating	userName	thumbsUp
0	good apps lazada	2024-10-24 20:32:48	5	Amir Hossain	0
1	Michael Lumacadchona26	2024-10-24 20:04:06	5	Michael Lumacad	0
2	I'm satisfied	2024-10-24 19:53:13	5	Ernilo Soria	0

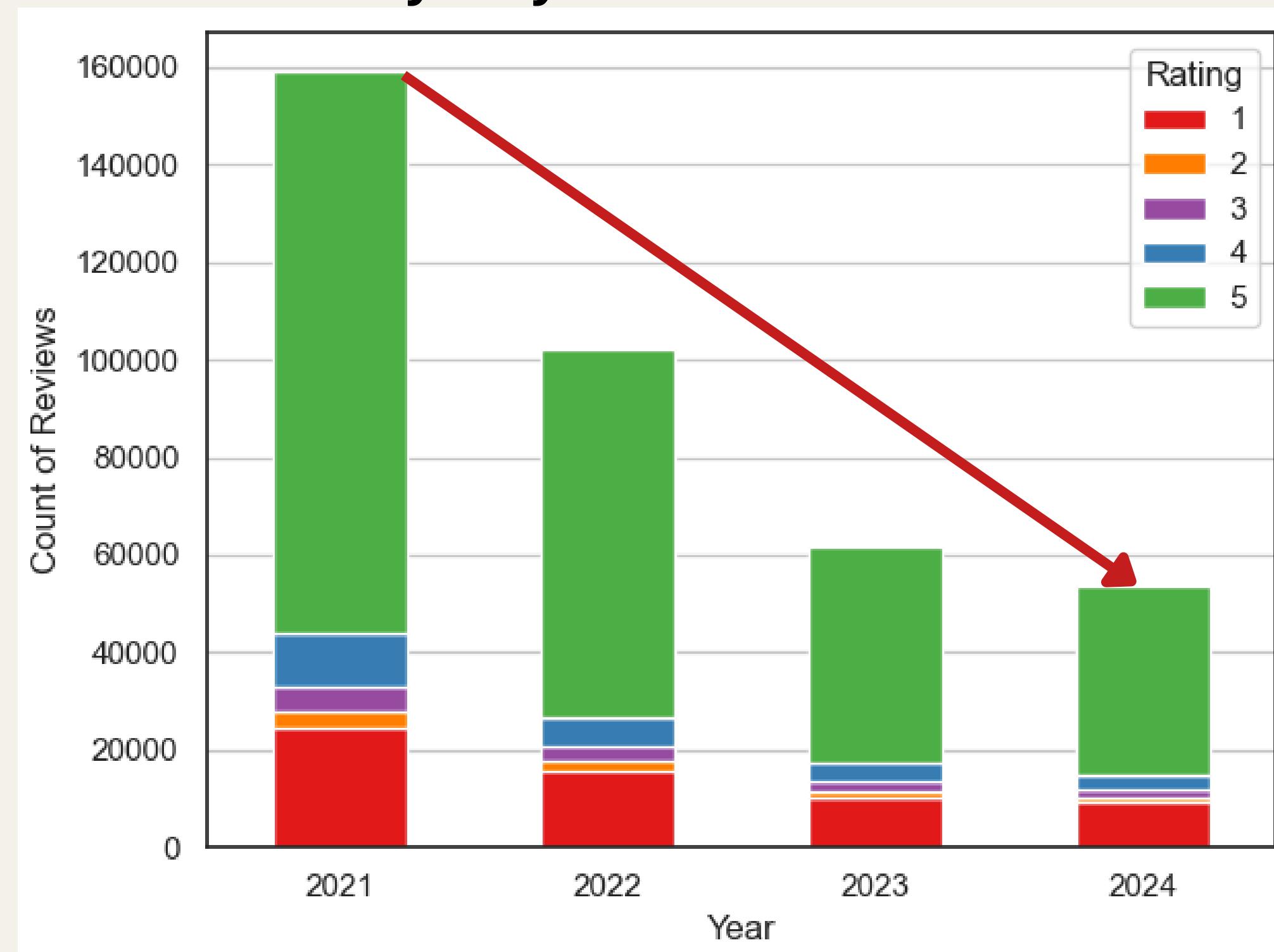
Count of each rating



# Yearly Timeline Analysis

- **Decreasing trend** of no. of customer reviews
- Potentially **lesser** people using the app?

yearly review count

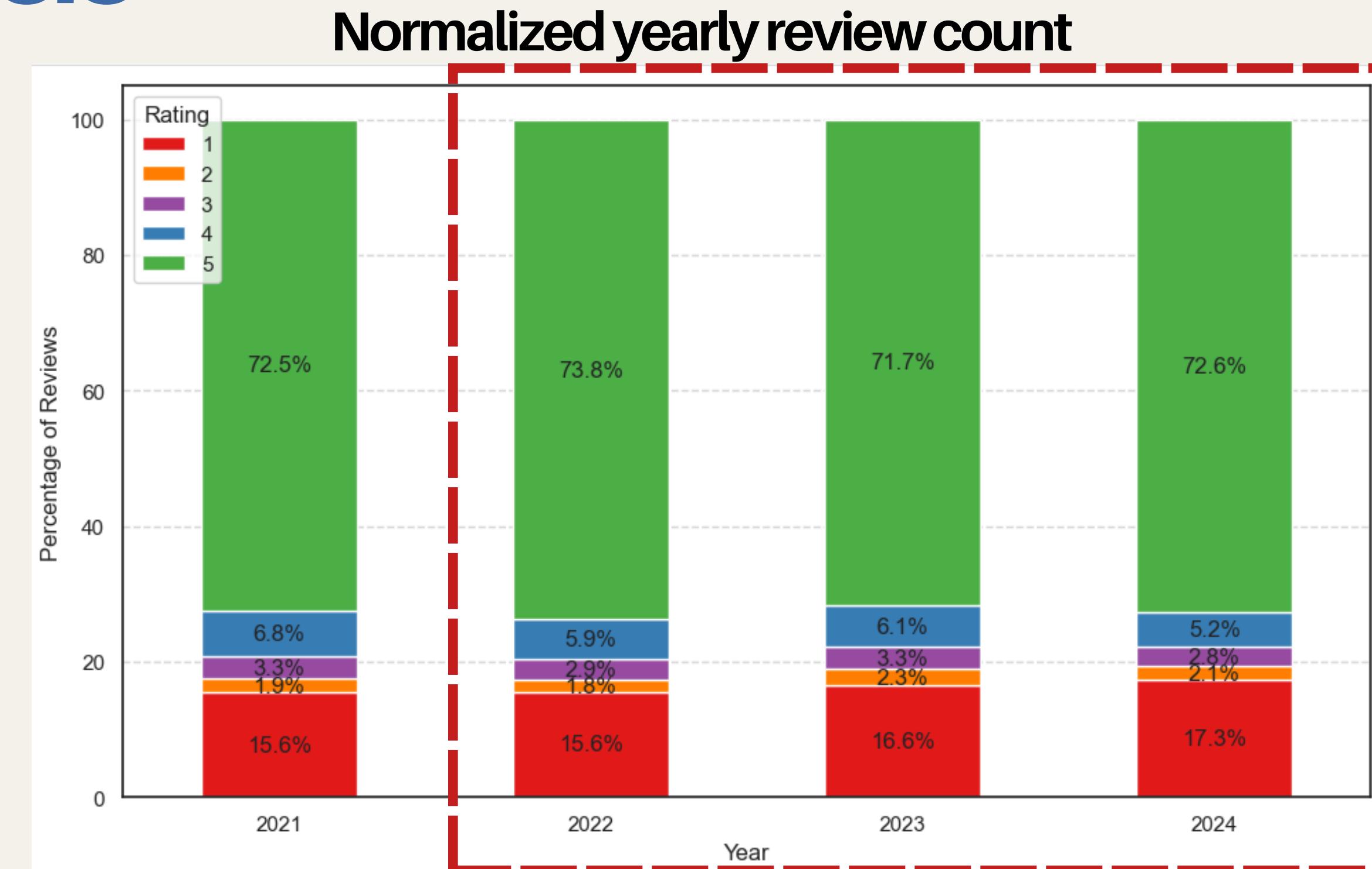


# Normalized Yearly Timeline Analysis

- Most % of rating 5 in year 2022
- Most % of rating 1 in year 2024

2022 onwards

- Despite decreasing no of reviews, Increasing trend of % of reviews with rating 1

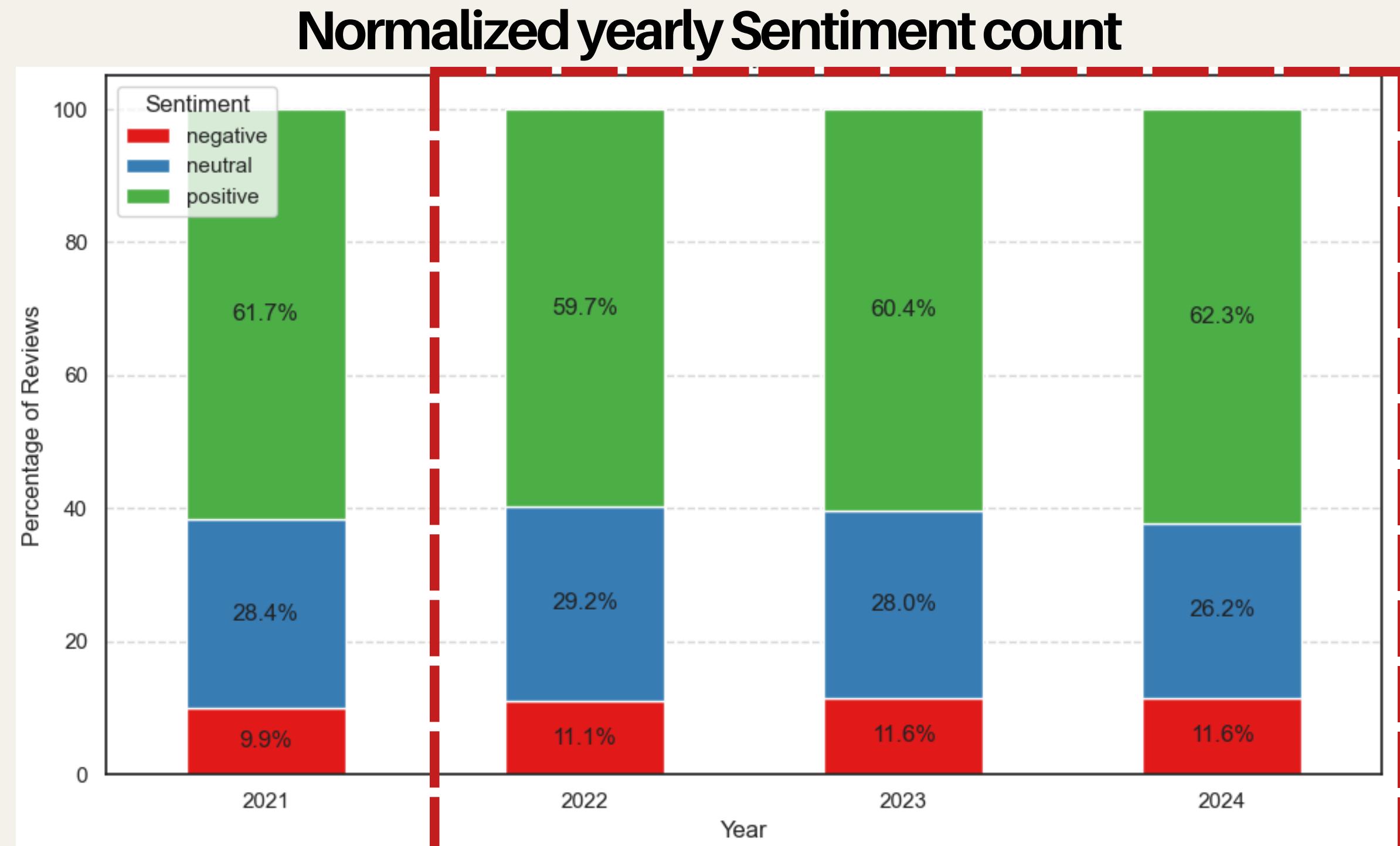


# Normalized Yearly Sentiment Timeline Analysis

- Exact same trend as yearly rating timeline analysis
- Most % of Negative Sentiment in 2023 & 2024

## 2022 onwards

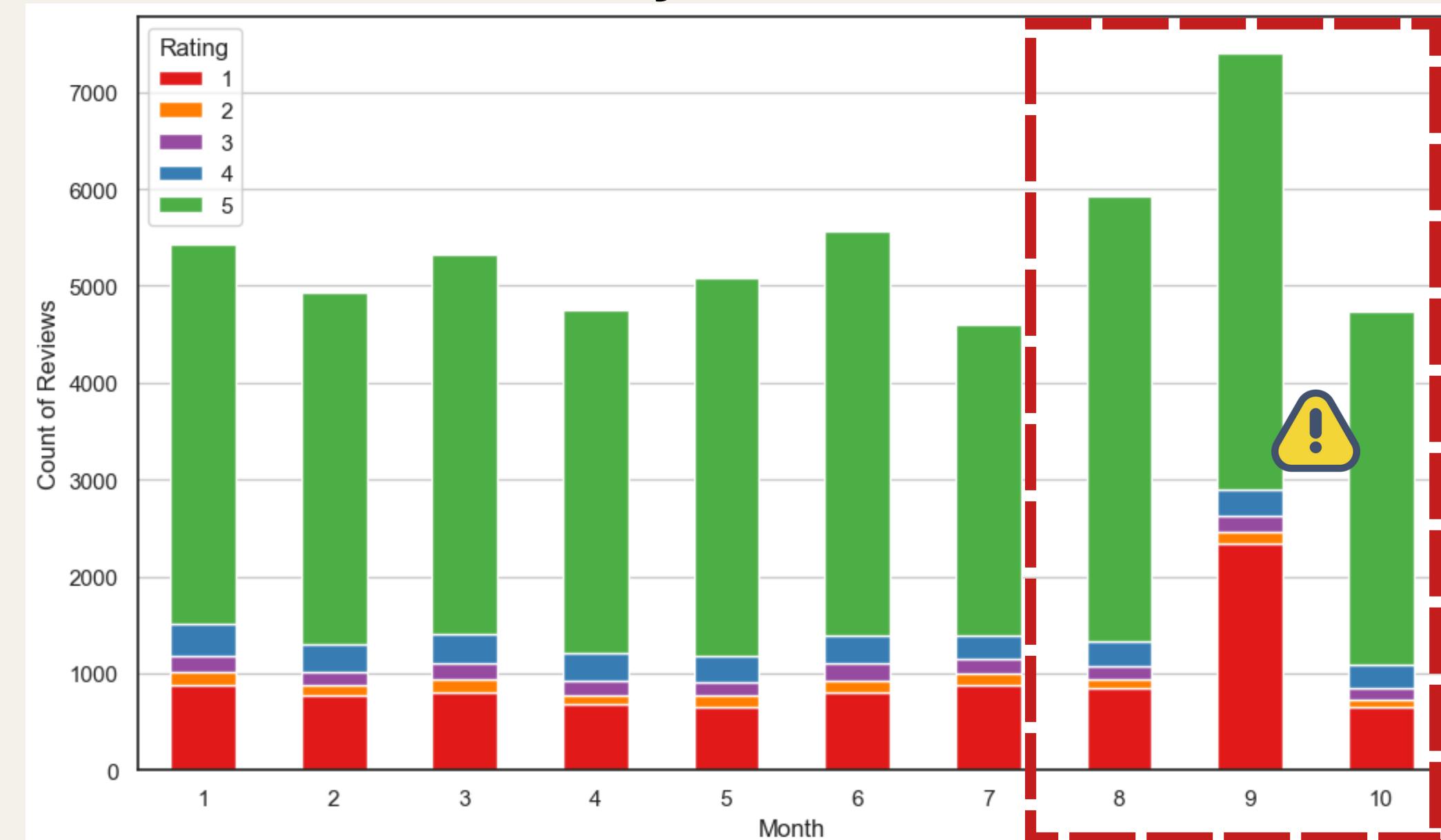
- Despite Decreasing no of reviews, Increasing trend of % of Negative sentiments
- Increasing % of unhappy users
- Increasing % of happy users



# Monthly Timeline Analysis

- No. of **bad reviews consistent** throughout except September
- **Sudden surge** of reviews with **rating 1** in September
- No. of reviews with **rating 5** is still **leading** every month

Monthly review count



# Word Cloud

# Rating 1



# Rating 2



# Rating 3



# Rating 4



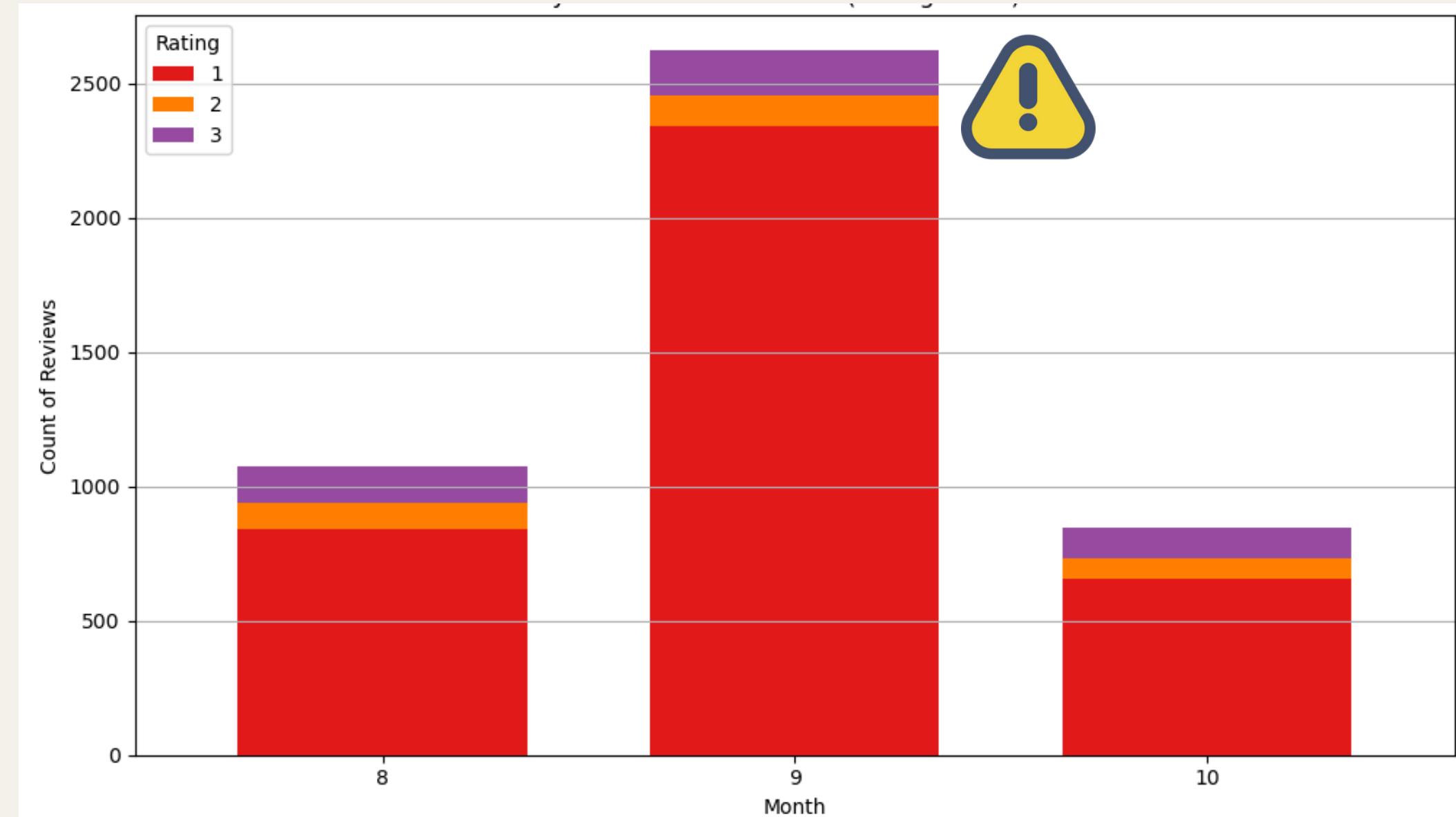
# Rating 5



# Bad reviews by most recent 3 months

- **Highest** no. of **bad reviews** on September
- **Significant decrease** in no. of **bad reviews** on October
- Topic Modelling on these data as it is **most recent and most relevant for real-time analysis**

Most recent 3 months review with rating  $\leq 3$  count



# Topic Modelling

No. of topic = 5 & No. of words = 10

Coherence Score: 0.62

Perplexity: -11.95

Topics found via LDA:

Topic #1:

scammer nice money pay voucher buy payment price product online

Topic #2:

time voucher get account order always delivery day m say

Topic #3:

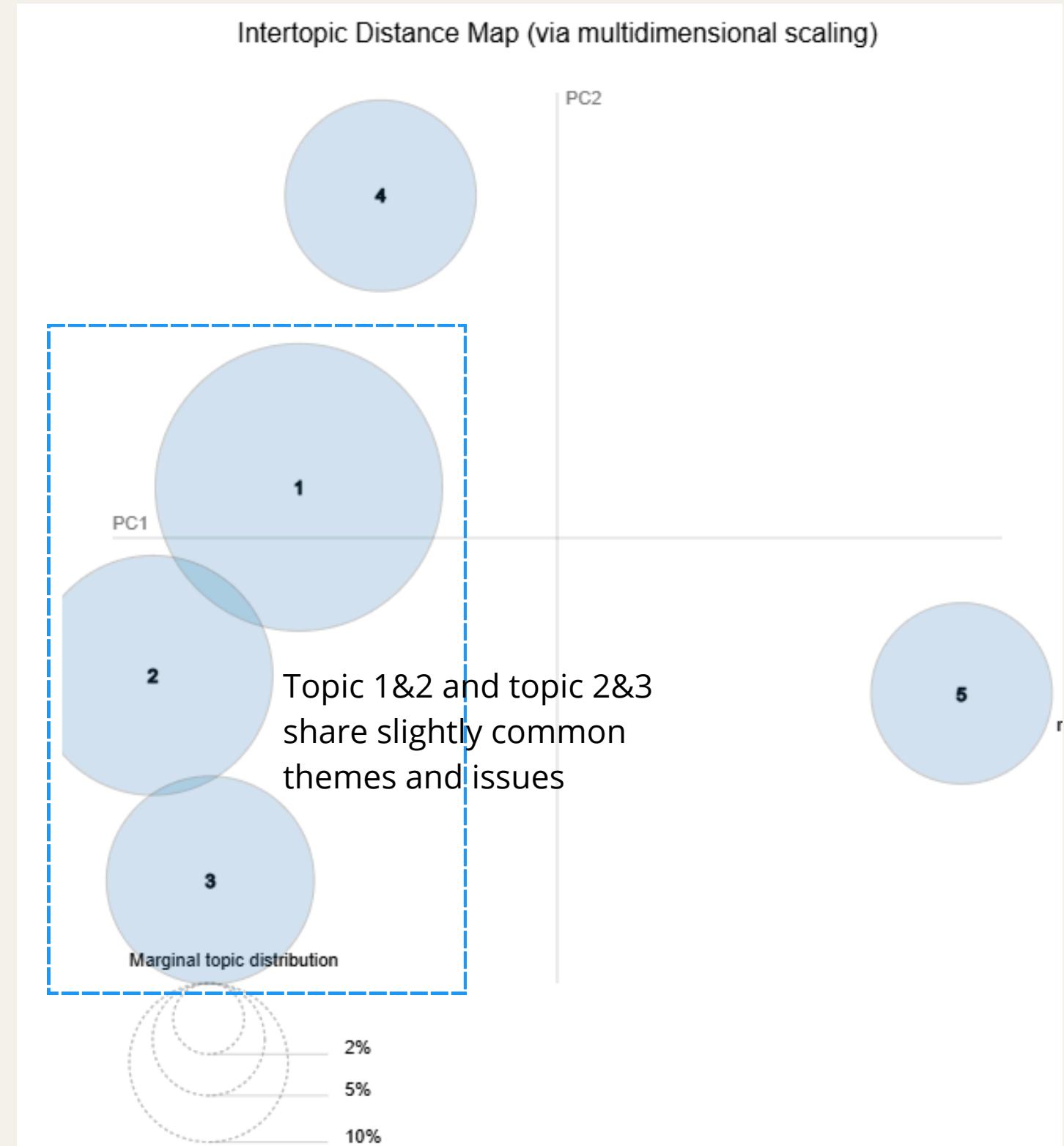
good ad bias annoying pop notification app many show big

Topic #4:

bad delivery courier slow poor service well fake scam deliver

Topic #5:

order item refund seller return customer\_service customer agent receive chat



# Insights Derived

## Areas of Improvement

Topics found via LDA:

Topic #1:  
scammer nice money pay voucher buy payment price product online

Topic #2:  
time voucher get account order always delivery day m say

Topic #3:  
good ad bias annoying pop notification app many show big

Topic #4:  
bad delivery courier slow poor service well fake scam deliver

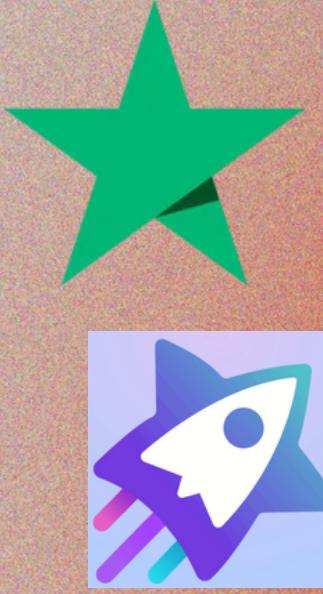
Topic #5:  
order item refund seller return customer\_service customer agent receive chat

### Customer Service

- **Scams & Payment Issues:** Concerns about fraud, scams, and payment security with vouchers and online transactions.
- **Delivery & Order Issues:** Frustrations with delayed orders, tracking problems, and unmet delivery guarantees.
- **Poor Service & Delivery Experiences:** Complaints about slow couriers, poor delivery service, and fraudulent claims.
- **Refund & Customer Service Issues:** Difficulties with returning items, getting refunds, and communicating with customer support.

### Shopping Experience

- **Annoying Advertisements from pop-up:** Disruptive pop-up ads and excessive promotions affecting the app experience.



★ Trust Pilot &  
SiteJabber  
Reviews

# Data Collected

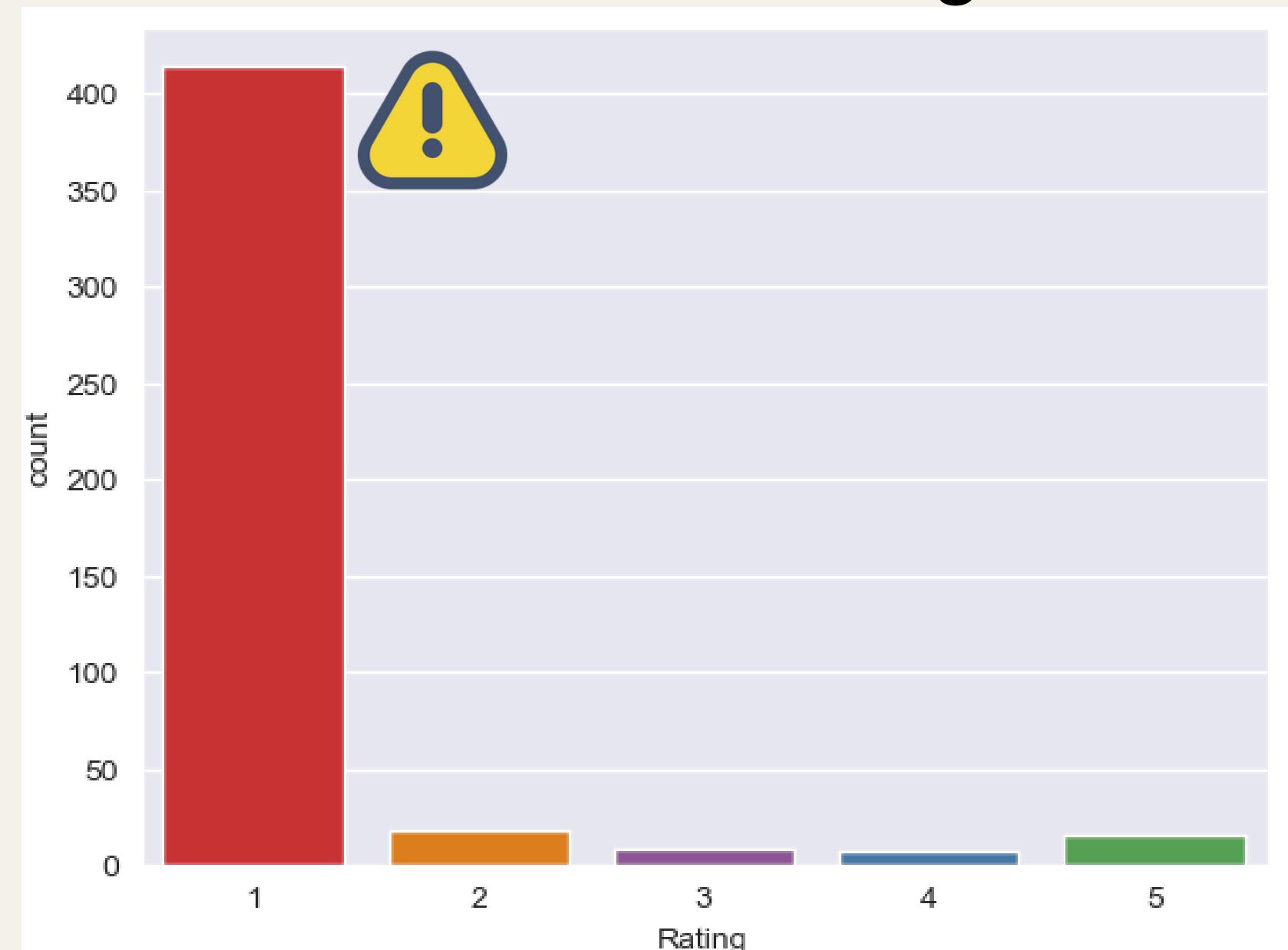
TrustPilot: [trustpilot-scrapers](#) library

SiteJabber: BeautifulSoup & Selenium library

Duration	Nov 2014 - Oct 2024
Trustpilot reviews	287
SiteJabber reviews	178

	Date	Author	Review	Title	Rating
0	2022-11-05	Tan Ronald	Lazada slow in taking action to scammers.\nMy ...	Lazada slow in action against fraud / scammers	1
1	2020-12-22	Kengy Khor	I have returned an order on Nov 25 and never r...	Refund takes forever	1
2	2020-06-19	jlim	lazada order\nthe seller a supposedly "Geth Ma...	cheated by lazada on my first order	1
3	2020-01-23	Barry K	So Lazada dispute team, it's almost two weeks ...	Worst service I have ever experienced	1
4	2019-08-16	Xxx Xxx	Refunding is stupidly complicated, I've contac...	Don't waste your money here	1

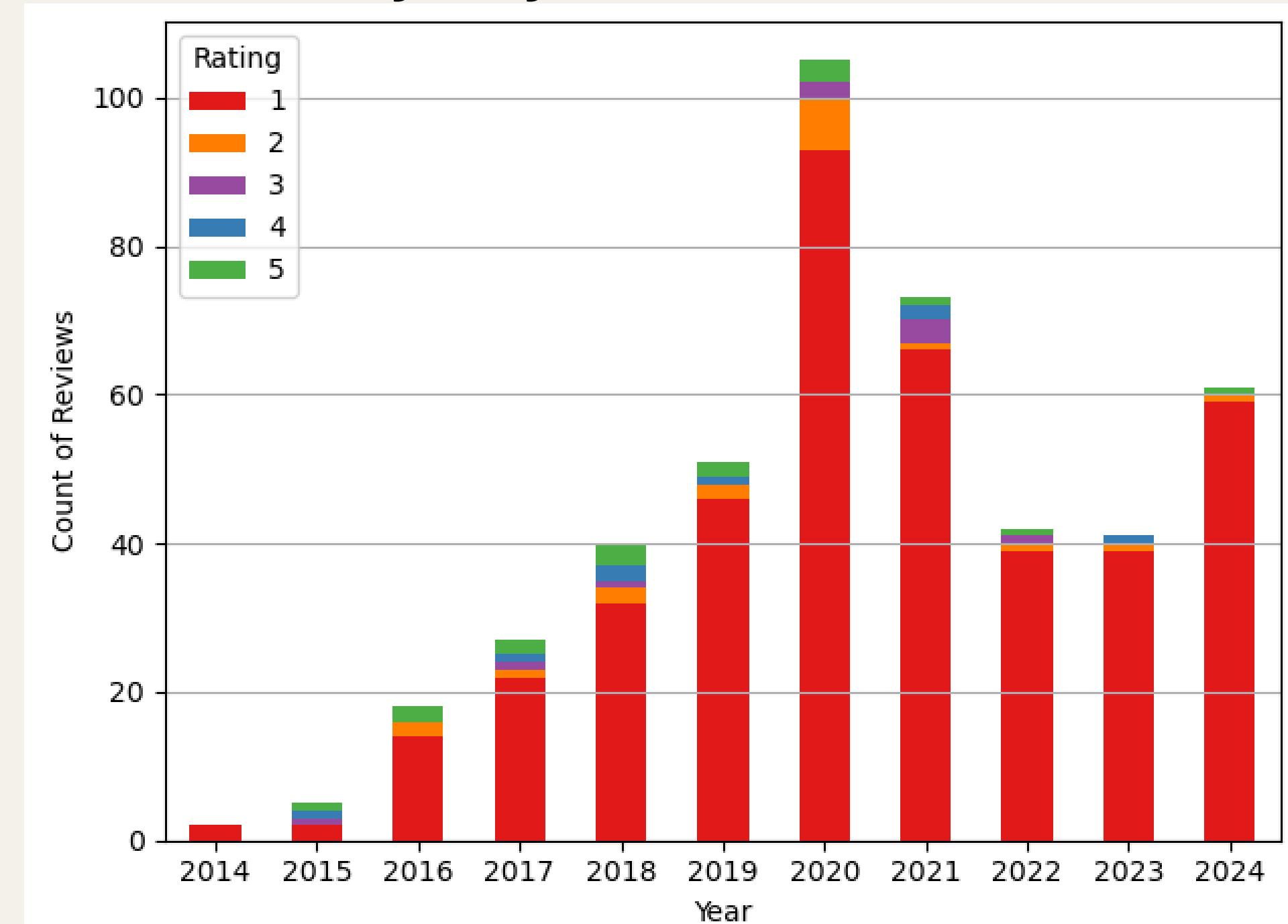
Count of each rating



# Yearly Timeline Analysis

- **Decreasing trend** of no. of customer reviews from 2020 onwards except 2024
- Majority is **rating 1**, extremely bad!

yearly review count



# Normalized Yearly Timeline Analysis

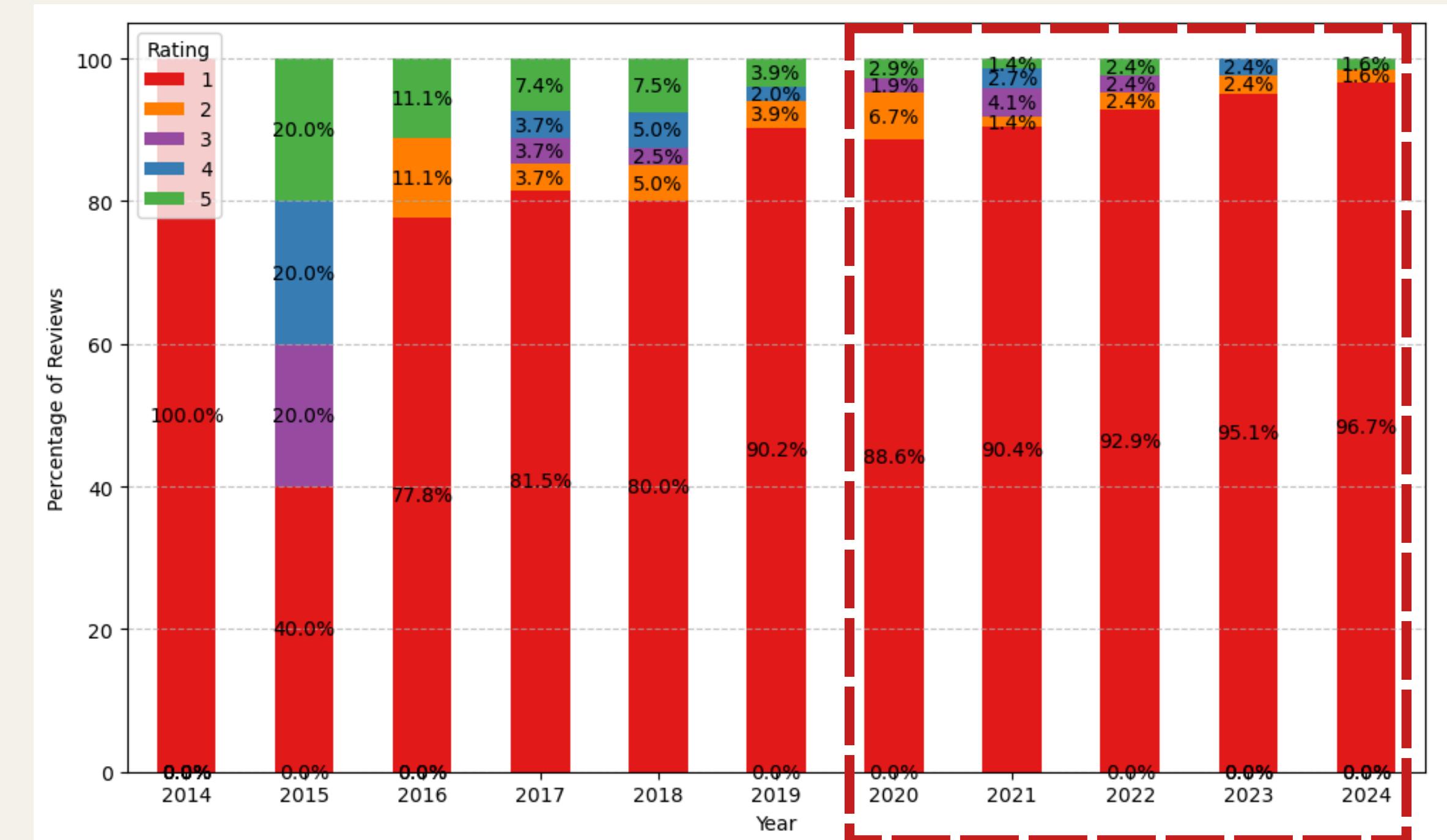


- Most % of rating 1 in year 2024

2020 onwards

- Despite **decreasing** no of reviews, **Increasing trend** of % of reviews with **rating 1**
- 2023 got no rating 5 at all

Normalized yearly review count



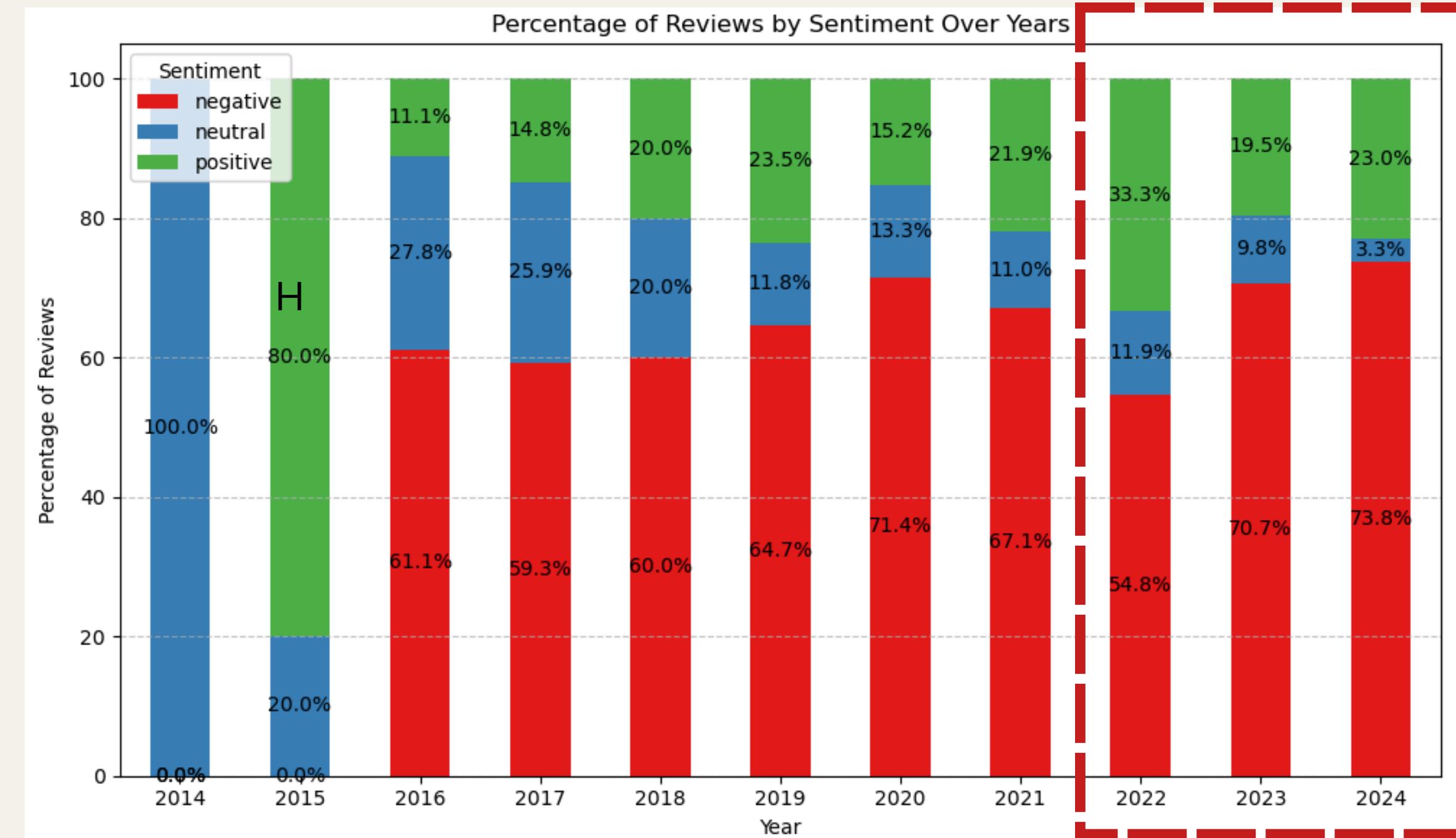
# Normalized Yearly Sentiment Timeline Analysis

- Similar trend as yearly rating timeline analysis
- Most % of Negative Sentiment in 2024

2022 onwards

- Increasing trend of % of Negative sentiments
- More unhappy users

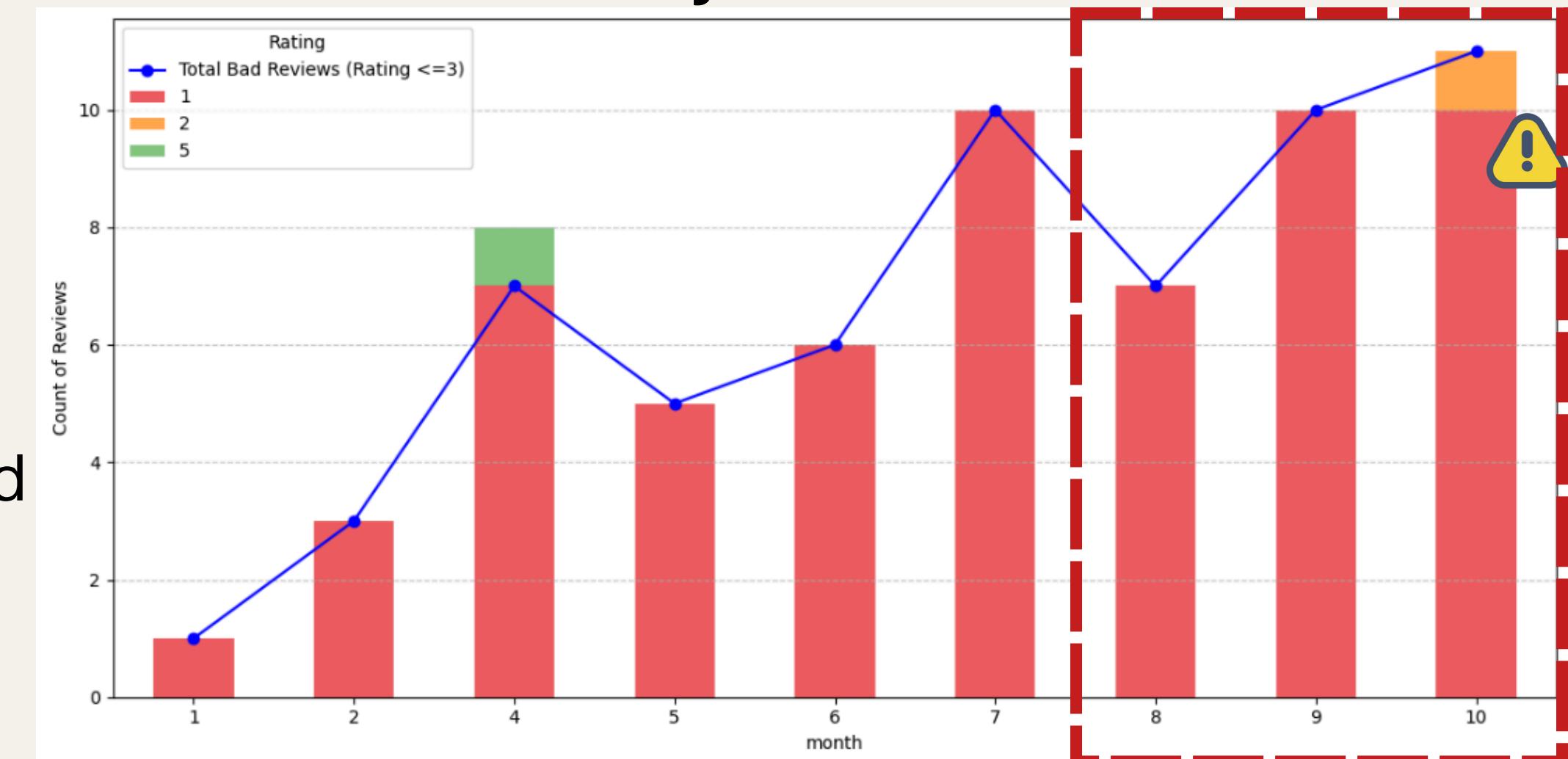
## Normalized yearly Sentiment count



# Monthly Timeline Analysis

- Overall **increasing** number of **bad reviews**
- Only a singular review with **rating 5**
- No. of reviews with **rating 1** is still **leading** every month
- Past 3 months has **increasing** no. of bad reviews
- **Topic Modelling** on most recent 3 months data as most relevant for real-time analysis

Monthly review count



# Word Cloud

- Not enough reviews with other ratings to create word clouds
- Reviews with **rating 1** is **too concentrated**

Rating 1



# Topic Modelling

No. of topic = 5 & No. of words = 10

Coherence Score: 0.33

Perplexity: -7.58

Topics found via LDA:

Topic #1:

return refund customer\_service experience customer seller day receive item give

Topic #2:

return delivery product seller order deliver option get update customer\_service

Topic #3:

return order seller time ask go refund item agent call

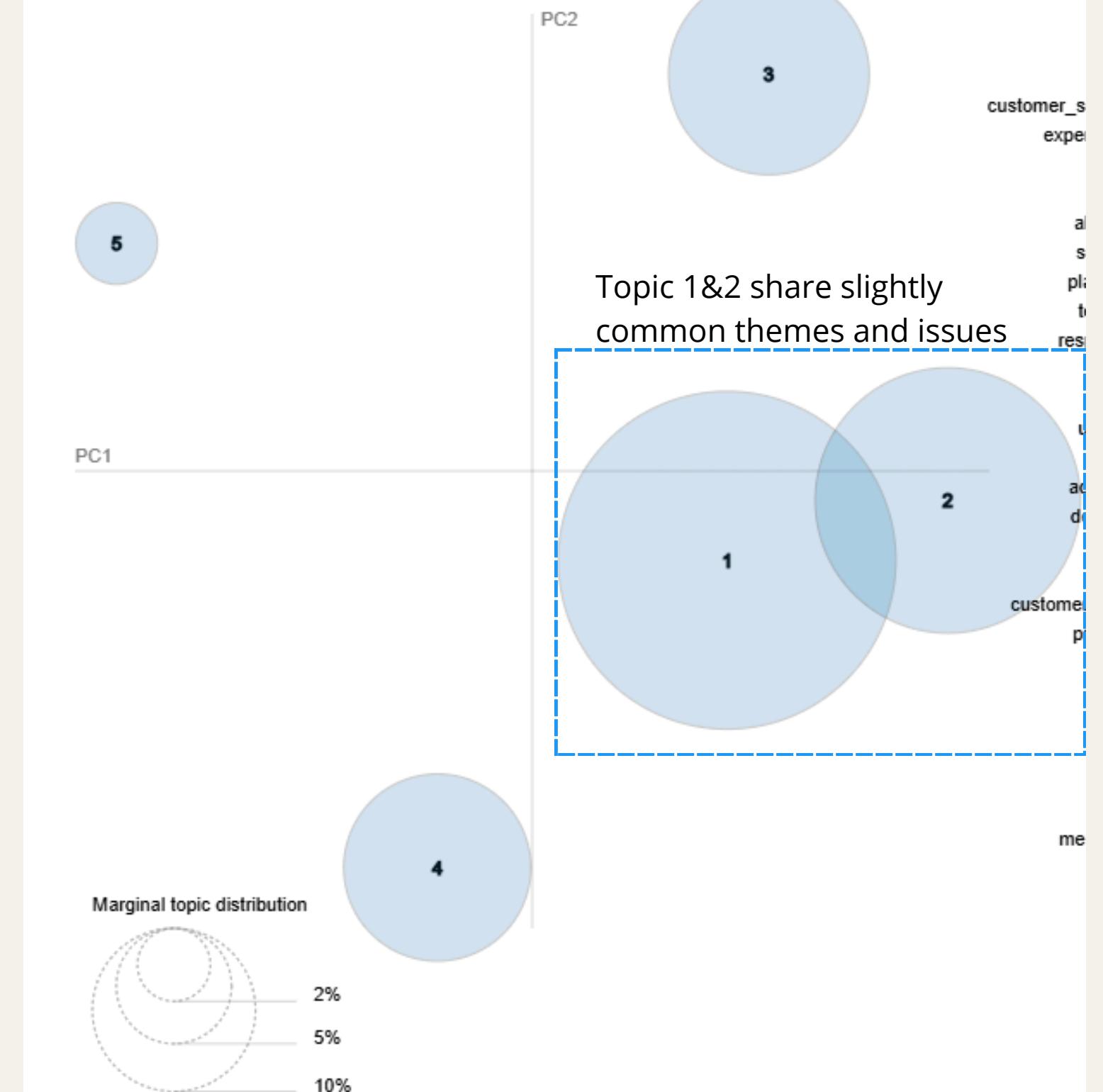
Topic #4:

seller refund buy return item ask order issue customer\_service time

Topic #5:

call terrible update service send direct customer\_service chat experience address

Intertopic Distance Map (via multidimensional scaling)



# Insights Derived

## Areas of Improvement

Topics found via LDA:

Topic #1:  
return refund customer\_service experience customer seller day receive item give

Topic #2:  
return delivery product seller order deliver option get update customer\_service

Topic #3:  
return order seller time ask go refund item agent call

Topic #4:  
seller refund buy return item ask order issue customer\_service time

Topic #5:  
call terrible update service send direct customer\_service chat experience address

### Customer Service

- **Return & Refund Experience:** Frustrations with return handling, refund delays, and poor customer service.
- **Delivery & Seller Issues:** Complaints about delayed or incorrect deliveries and poor communication from sellers.
- **Order & Refund Delays:** Delays in order resolution, refunds, and lack of response from customer service.
- **Seller & Order Issues:** Problems with seller performance, incorrect items, and inadequate customer service response.
- **Customer Service Call Experience:** Negative experiences with customer service, ineffective call support, and lack of issue resolution.