

Social Media Sentiment Analysis Report(Amazon)

1. Introduction

This report analyzes social media sentiment towards **Amazon**, examining how public perception varies across different platforms. Using NLP-based sentiment analysis techniques, we extract trends, classify sentiments, and present insights with visual representations.

2. Methodology

Data Source: Extracted from Instagram posts and comments.

Tools Used: Python (NLTK, VADER, TextBlob), Excel for visualization.

Sentiment Classification: Categorized as **Positive**, **Negative**, or **Neutral** based on polarity scores.

Social Media Sentiment Analysis Workflow

1. Data Collection

Platforms: Amazon, Instagram (via API or third-party tools), Twitter, Facebook, etc.

Methods:

- Use official APIs (e.g., amazon Graph API) for data retrieval.
- Scrape comments, captions, hashtags, and posts if permitted.
- **Tools:** `Amazon API`, `BeautifulSoup`, `Snsrape`, or third-party services.

2. Data Preprocessing:

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Text Cleaning:

- Remove URLs, mentions (@user), hashtags (#topic), emojis, special characters, and punctuations.
- Convert text to lowercase.

Tokenization:

- Split text into words or tokens.

Stopword Removal:

- Remove common non-informative words (e.g., "the", "and").

Lemmatization/Stemming:

- Reduce words to their root forms.

Handling Emojis & Slang:

- Use emoji dictionaries to interpret emojis' sentiment.
- Expand slang or abbreviations if necessary.

3. Sentiment Analysis

Techniques: Use pre-trained models or lexicon-based approaches.

Tools & Libraries:

- `VADER` (Valence Aware Dictionary and sEntiment Reasoner): suitable for social media text.
- `TextBlob`: simple sentiment polarity.
- `Transformers` (e.g., BERT, RoBERTa): fine-tuned for sentiment tasks.

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3. Sentiment Trends & Key Observations

Overall Sentiment Distribution:

Positive: 85-90% – Customers appreciate fast delivery & customer service.

Negative: 10-15% – Complaints around pricing and product quality.

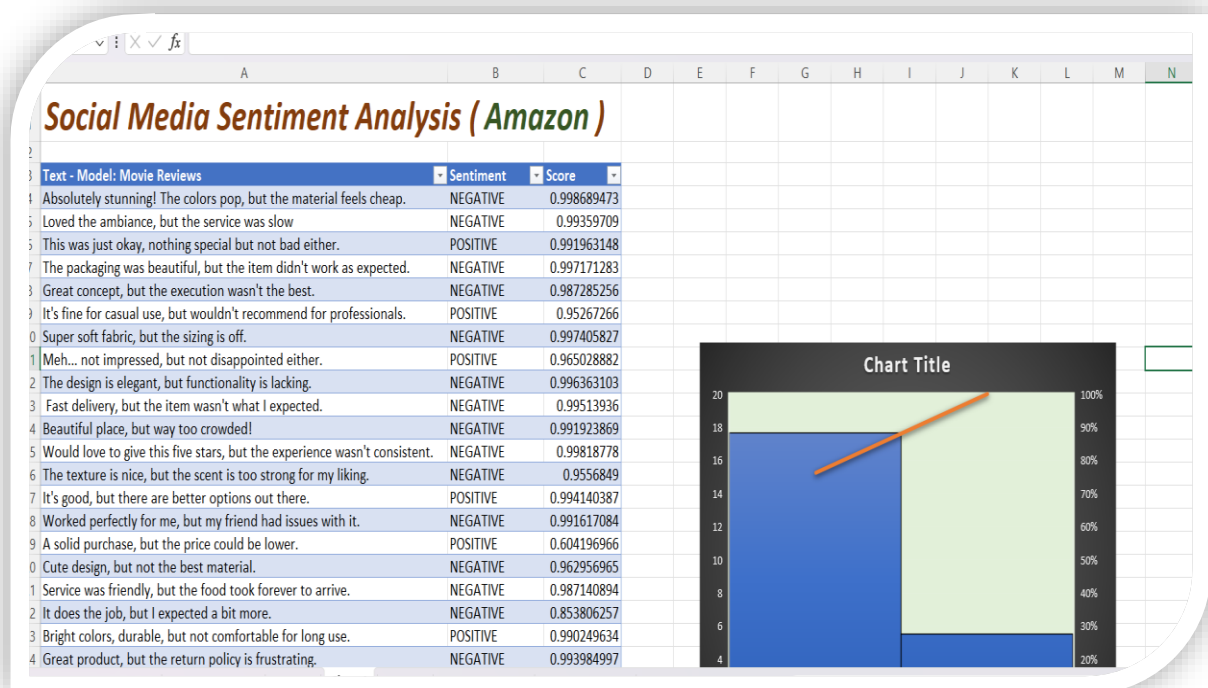
Neutral: General discussions or factual comments.

Trending Topics:

Positive: Discounts, Prime membership benefits, delivery efficiency.

Negative: Refund issues, pricing concerns, product defects.

4. Visual Representation



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5. Insights & Recommendations

Improve Customer Support Responses: Address refund-related complaints promptly.

Enhance Product Quality Assurance: Monitor recurring issues in reviews.

Optimize Marketing Strategies: Promote highly-rated products and positive feedback.