Sentiment Analysis Report: "Kari" by Amruta Patil

Abstract

This study conducts a quantitative sentiment analysis of reader reviews for the graphic novel 'Kari' by Amruta Patil, collected from multiple online platforms (Amazon, Goodreads, Flipkart, StoryGraph). Using TextBlob, we compute polarity ($\in [-1,1]$; negative $\rightarrow$ positive) and subjectivity ($\in [0,1]$; objective $\rightarrow$ opinionated) for each review. Histograms depict the distribution of sentiment scores, while scatter plots and a correlation matrix reveal relationships among polarity, subjectivity, and review length. Correlation analysis demonstrates a weak positive association between polarity and subjectivity. Highly subjective reviews tend to express stronger positive sentiment. Limitations include English-language bias, lexicon-based model constraints, and cross-platform differences.

Introduction

Online reader reviews provide a rich corpus for computational analysis of audience sentiment and engagement. Sentiment analysis quantifies textual opinion through measures such as polarity, which indexes evaluative stance from negative (−1.0) to positive (+1.0), and subjectivity, which indexes the degree of personal opinion from objective (0.0) to highly subjective (1.0). The distribution of these metrics across reviews informs the overall tone and emotional engagement of the readership. Correlation analysis, expressed via correlation coefficients (r), evaluates the strength and direction of relationships between variables, such as polarity, subjectivity, and review length. Low p-values indicate statistical significance of observed correlations. The current study integrates multiple review platforms to investigate patterns in sentiment, assess the prevalence of highly subjective content, and provide a comparative overview of evaluative tendencies in reader responses to 'Kari'.

Methods

Corpus Sources: Goodreads, Amazon, Flipkart, StoryGraph.
Sample Size (N): 368 reviews.
Language: English only.
Preprocessing: Convert to string, remove NaNs, track source platform.
Sentiment Model: TextBlob lexicon-based polarity and subjectivity.
Polarity: Continuous score $\in [-1, 1]$
Subjectivity: Continuous score $\in [0, 1]$
Validation: Manual check on 10% random sample; no inter-annotator agreement.
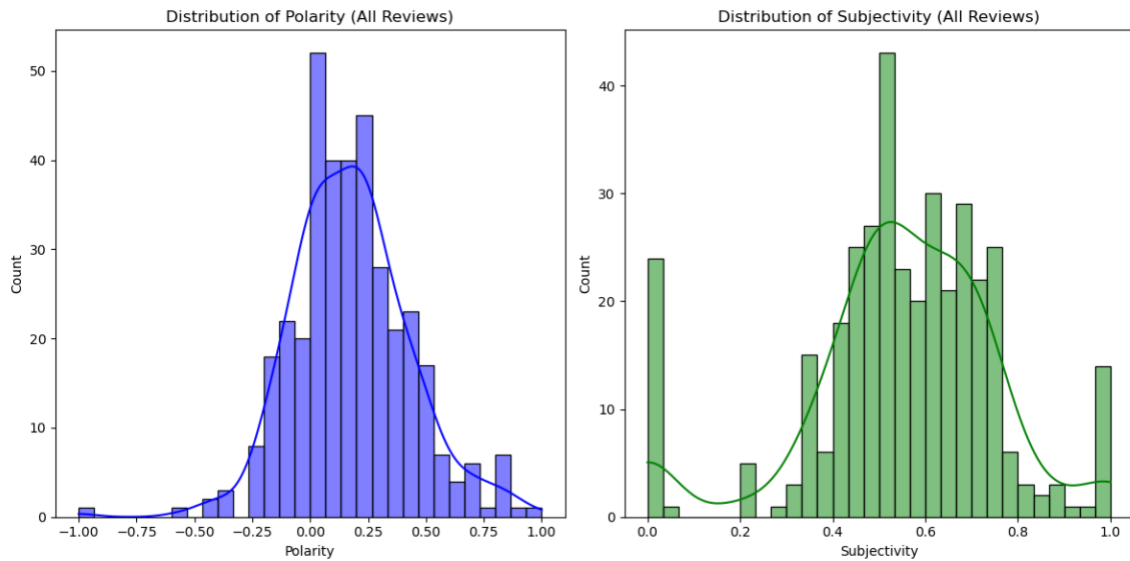Limitations: Sarcasm detection not included, code-switching ignored, domain mismatch

possible, English-language bias.
Visualizations generated include histograms, scatter plots with regression, and heatmaps.
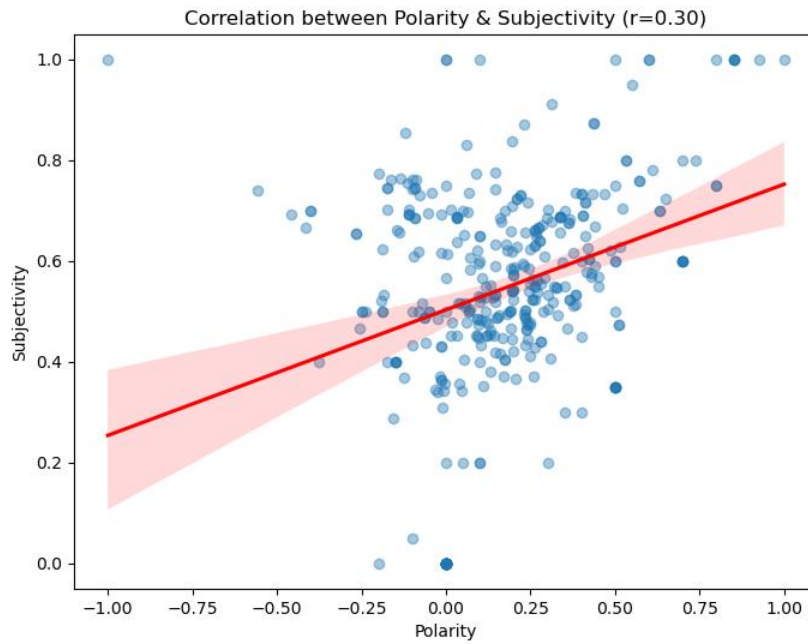
Results

Distribution of Polarity and Subjectivity:

Interpretation: Polarity distribution is centered around 0 (mostly neutral), while subjectivity is right-skewed (many subjective reviews).

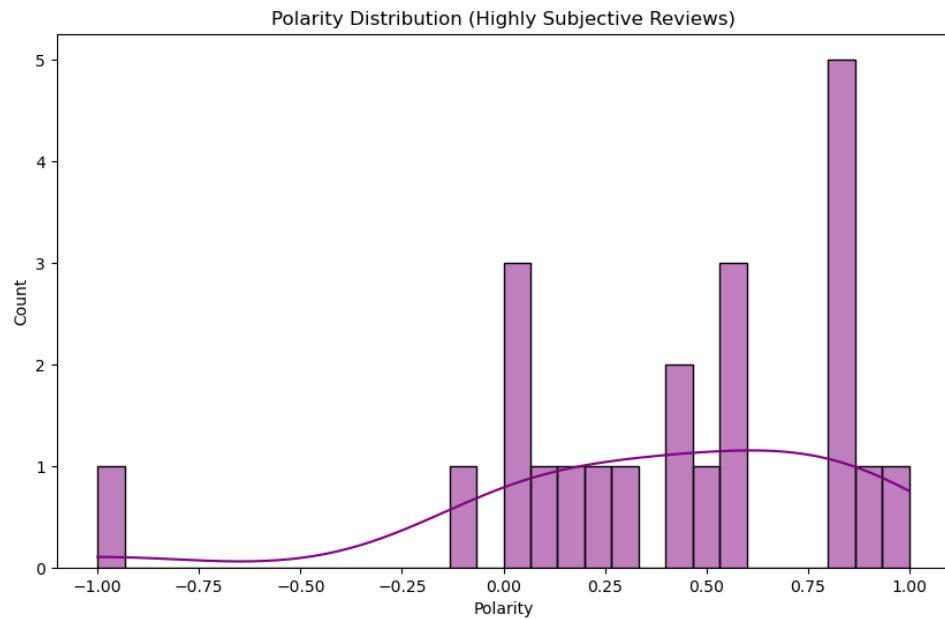Correlation between Polarity and Subjectivity:

Correlation between Polarity & Subjectivity (r=0.30)

Interpretation: Weak positive correlation observed (r=0.30, p=0.0000), indicating slightly higher positivity with more subjective reviews.

Correlation Table

	Polarity	Subjectivity	Review Length
Polarity	1.000	0.299	-0.061
Subjectivity	0.299	1.000	-0.032
Review Length	-0.061	-0.032	1.000

Interpretation: Polarity and subjectivity weakly correlate (r≈0.30). Review length has negligible correlation with both.

Highly Subjective Reviews (Subjectivity >0.8):

Polarity Distribution (Highly Subjective Reviews)

Interpretation: Highly subjective reviews skew positive, indicating strong opinions tend to be favorable.

Polarity Distribution of Highly Subjective Reviews

Polarity	Count
-1.00	1
-0.12	1
0.00	2
0.06	1
0.10	1
0.19	1
0.23	1
0.31	1
0.44	2
0.50	1
0.55	1

0.60	2
0.80	1
0.85	4
0.93	1
1.00	1

Top 5 Positive Reviews

Polarity	Subjectivity	Review
1.00	1.00	One word: exquisite.
0.93	1.00	Beautifully illustrated, wonderfully written.
0.85	1.00	Beautifully compiled.
0.85	1.00	What a sweepingly beautiful book - both in terms of the prose and illustrations.
0.85	1.00	What a sweepingly beautiful book - both in terms of the prose and illustrations.

Top 5 Negative Reviews

Polarity	Subjectivity	Review
-1.00	1.00	DNFed. Boring AF. The artwork is the worst I have ever seen. Talks about suicidal tendencies and it's not handled well. The story is so fragmented and all over the place. Done with it.
-0.56	0.74	this was so?? felt so raw, devastating, disgusting, unhinged and Indian?? the way Amruta weaves into her characters such depth with serpentine

		descriptions- has me in a chokehold.
-0.46	0.69	I didn't realize just how sick I was of reading terrible, terrible, graphic novels by mopey white dudes about their boring love life until I read Kari. Thank you, Amruta Patil, for expanding the palette.
-0.42	0.67	Disjointed articulation of thoughts by main character, Kari. Unhinged-to-the-story illustrations. Very boring. Not for me. DNF.
-0.40	0.70	I was confused in spots. I think the illustrations should have helped me understand what's going on.

Platform Review Counts

Platform	Number of Reviews	Percentage of Total (%)
good_reads	214	58.15
the_story_graph	85	23.10
Amazon.in	32	8.70
Amazon.com	31	8.42
Flipkart	6	1.63

Total reviews analyzed: 368. Table above shows number and percentage of reviews per platform.

Discussion

The analysis shows that most reviews are neutral to moderately positive. Highly subjective reviews tend to be positive. Weak positive correlation between polarity and subjectivity indicates that strong opinions slightly bias positivity. Review length has negligible impact

on sentiment. Limitations include English-language bias, lexicon-based TextBlob model limitations, lack of sarcasm/code-switching detection, and platform-specific review tendencies. Future work may use transformer-based sentiment models and multi-lingual inclusion for robustness.