



# Sentiment and Framing in the #AyoKePariaman Digital Tourism Campaign: An AI-Assisted Analysis

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## ABSTRACT

Digital tourism campaigns utilizing hashtags have transformed destination branding from a top-down monologue into a complex dialogue. However, this participatory culture often leads to narrative contestation where user-generated content challenges official promotional images. This study investigates the narrative dynamics within the #AyoKePariaman campaign in West Sumatra by integrating communication theory with artificial intelligence. Employing a mixed-methods design, we systematically collected a dataset of 45,830 Instagram posts. The analysis utilized Long Short-Term Memory (LSTM) for precise sentiment classification and K-Means Clustering for audience segmentation. These computational results were then deepened through Robert Entman's framing analysis to deconstruct the specific narratives constructed by dominant audience groups. The findings reveal a polarized digital landscape. While positive sentiment dominates (68.3%) driven by the "Destination Promoters" cluster who frame Pariaman as a "hidden paradise" of natural beauty and culture a significant counter-narrative emerged. A "Constructive Critics" cluster (15%) actively framed the destination as "wasted potential," highlighting specific operational failures such as poor waste management, illegal parking fees, and inadequate facilities. Theoretically, this study illustrates how negative expectancy violations trigger counter-agenda setting in digital tourism. Practically, the findings suggest that destination managers must shift from purely promotional strategies to responsive crisis management, utilizing AI-based social listening to address critical feedback before it delegitimizes the destination's brand identity.

## Keywords

tourism branding, user-generated content, agenda-setting, framing analysis, artificial intelligence

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## INTRODUCTION

In the contemporary digital era, tourism communication has undergone a paradigm shift from a one-way transmission of information to a complex, participatory ecology. In this landscape, destination authorities no longer hold a monopoly on a region's image (Lestari, 2023). Instead, the meaning of a destination is co-created through a dynamic interplay between official campaigns and the authentic voices of the public (Malik et al., 2024). Social media platforms, particularly Instagram, have facilitated the rise of User-Generated Content (UGC) (Rafi'i et al., 2024), transforming tourists from passive consumers into active stakeholders who shape the discourse surrounding a destination (Setiadi & Mukti, 2023).

Pariaman City in West Sumatra illustrates the challenges of this digital transformation. Despite possessing significant tourism potential ranging from the Tabuik cultural festival to its coastal culinary offerings and launching a dedicated digital campaign under the hashtag #AyoKePariaman

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(Fatkhullah et al., 2022). Visitor statistics indicate that Pariaman continues to lag behind other established destinations in the region. This discrepancy raises a critical question regarding the effectiveness of the communication strategy, how is the campaign's message actually received, interpreted, and reshaped by the digital public?

Hashtags (#) are essential to this participative ecosystem. Nasrullah (2015) asserts that hashtags are now a tool for creating identities and spreading stories rather than only being used to group topics (Purnamasari et al., 2025). The use of hashtags such as #AyoKePariaman can be understood within the framework of Agenda-Setting Theory, where tourism authorities attempt to set an agenda of positive attributes about their destination (Cordero-Vinueza et al., 2025). However, the same participatory space allows audiences to propose counter-agendas based on their experiences. The success of a campaign now depends heavily on the dynamics between the proposed agenda and the counter-agendas emerging from the audience (Shabira, 2021).

Theoretically, this phenomenon can be analyzed through the lens of Agenda-Setting Theory and Framing Analysis. While tourism authorities utilize hashtags to set the "first-level agenda" (making the destination visible) and the "second-level agenda" (highlighting positive attributes), the participatory nature of social media allows audiences to propose counter-agendas based on their lived experiences (Cuadrado et al., 2025). As noted by Entman (1993), framing is crucial in this process, as it determines how specific aspects of reality, such as the beauty of a beach or the cleanliness of a facility, are selected and made salient in the text (Suyani et al., 2025). Understanding these competing frames is essential, as negative frames constructed by visitors can significantly undermine official branding efforts (Davis et al., 2025).

However, a significant methodological gap exists in current tourism research. Previous studies have extensively utilized machine learning and Sentiment Analysis to evaluate tourism data, but these efforts largely focus on structured reviews of hotels and products (Anam et al., 2021). While effective at quantifying positive or negative polarity, these purely quantitative approaches often fail to deconstruct the underlying narratives why a sentiment is formed. Conversely, traditional communication studies utilizing framing analysis offer deep qualitative insights but are often limited to small sample sizes, making them insufficient for capturing the broad patterns of big data in digital campaigns. There is a scarcity of research that bridges this divide by integrating computational power with interpretive depth (Page & Duignan, 2023).

Identifying dominant frames across tens of thousands of social media posts, on the other hand, presents a methodological difficulty that standard qualitative analysis cannot answer. This is why implementing methods from computational social science is so urgent. These methods make it possible to convert vast amounts of unstructured communication data into useful quantitative insights. Researchers can overcome the drawbacks of subjective and time-consuming human analysis by effectively identifying narrative clusters and sentiment polarity by utilising artificial intelligence.

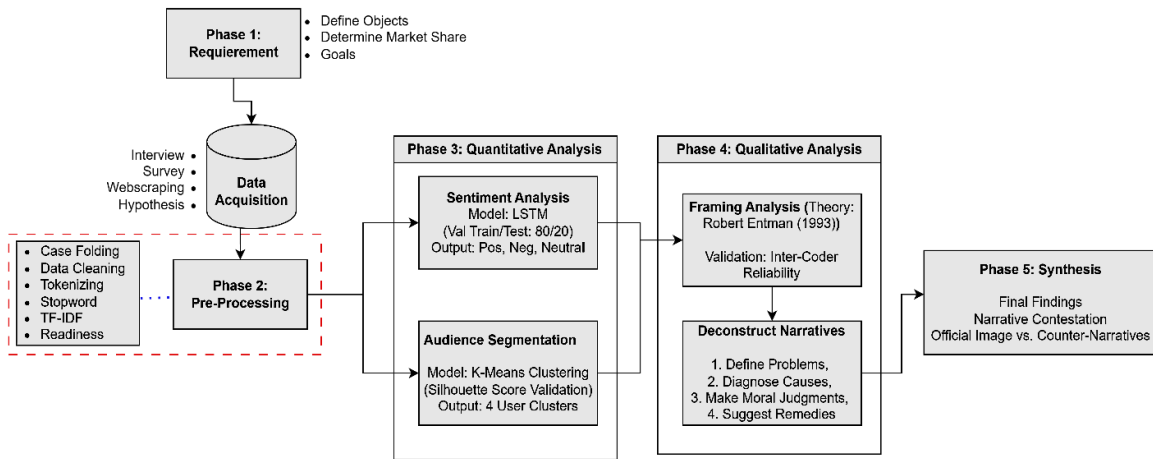
Despite these excellent contributions, there are considerable gaps in the extant research. While sentiment analysis of sustainable digital tourism promotional initiatives, like the #AyoKePariaman hashtag, is still uncommon, the majority of sentiment research concentrates on review data (hotel and product reviews). Additionally, there is currently very little study precisely merging communication theory (framing analysis) with machine learning technical analysis (sentiment and clustering) to determine how campaign narratives are received and how these sentiments may affect market segmentation.

This study aims to bridge this gap by proposing a novel interdisciplinary approach that combines Artificial Intelligence (AI) with Communication Theory. By integrating Long Short-Term Memory (LSTM) for precise sentiment classification, K-Means Clustering for audience segmentation, and Entman's Framing Analysis for qualitative interpretation, this research offers a comprehensive method to map the contestation of narratives. Specifically, this study seeks to: (1) map the distribution of public sentiment towards the #AyoKePariaman campaign; (2) identify distinct audience segments based on their digital participation; and (3) deconstruct how these segments frame their narratives whether reinforcing the official "paradise" image or constructing a critical counter-narrative.

**METHOD**

This study uses a mixed-methods approach that is essentially supported by two main frameworks first, a communication science theoretical framework for qualitative interpretation and second a computational linguistic model from Natural Language Processing (NLP) for quantitative data analysis. A prevalent problem in modern digital communication studies is bridging the gap between large-scale data analysis and a deeper comprehension of meaning, which is why this multidisciplinary method was chosen.

Epistemologically, this study positions UGC as a digital "text" that reflects social reality and the audience's User-Generated Content (UGC) perception of tourism campaigns. Therefore, data analysis was conducted through a series of structured stages, beginning with data collection, where posts related to the hashtag #AyoKePariaman were collected from social media. After data collection, a crucial pre-processing stage was carried out to clean and prepare the text data for analysis by a machine learning model. The cleaned data was then analysed using K-Means Clustering for tourist segmentation and the Long Short-Term Memory (LSTM) method for sentiment analysis. In order to comprehend the story and significance behind the recorded sentiments, the quantitative analysis's findings were not only shown as numbers in the final stage but also thoroughly analysed utilising a qualitative framing analysis approach (Putri, 2025). Research Framework The research process follows a structured pipeline as illustrated in Figure 1, encompassing five sequential phases: Requirement, Data Acquisition, Pre-processing, Quantitative Analysis (AI), and Qualitative Analysis.



**Figure 1.** The Integrated Research Framework using AI and Framing Analysis (Source: Researcher Processed data, 2025)

Figure 1 illustrates the proposed research framework. Phase I (Requirement and Data Acquisition) begins by defining the research goals focusing on the Pariaman tourism digital market share. Data acquisition is conducted using Python-based scraping tools to gather authentic UGC from Instagram. Phase 2 (Pre-Processing) prepares the unstructured text through Case Folding, Data Cleaning, Tokenizing, Stopword Removal, and TF-IDF feature extraction. Phase 3 (Quantitative Analysis) employs a dual-stream approach: Sentiment Analysis using the Long Short-Term Memory (LSTM) model (split into 80% training and 20% testing sets) and Audience Segmentation using K-Means Clustering validated by the Silhouette Score (Malik et al., 2025). Phase 4 (Qualitative Analysis) interprets the data using Entman's (1993) Framing Analysis, supported by Inter-Coder Reliability to ensure validity. Finally, Phase 5 (Synthesis) maps the narrative contestation between official images and public counter-narratives.

**Data Collection and Ethical Considerations**

The primary data source for this study is public content from social media (Instagram) using the hashtag #AyoKePariaman. Text data, such as captions, comments, and posts containing the hashtag #AyoKePariaman, will be collected directly from the relevant social media platforms using ethical manual web scraping techniques (Arefieva et al., 2021). The data collection period captured a full cycle of tourism activities, including the peak Tabuik Festival season

To address ethical concerns regarding digital research, strictly passive data collection methods were employed. The scraping process was limited exclusively to publicly accessible accounts (business profiles, media, and open personal accounts). No private data or direct messages were accessed. Furthermore, to protect user privacy, all personally identifiable information (usernames and profile pictures) was anonymized during the storage and analysis phases. This protocol aligns with ethical guidelines for internet research, ensuring that the analysis focuses on public discourse rather than individual surveillance.

For a more in-depth qualitative analysis, the researcher selected the top five posts within the hashtag #AyoKePariaman as case studies. Following the approach outlined in the referenced document, the researcher cataloged the findings based on the highest number of likes in order to analyze the most representative and influential posts. The following is a list of content that will be analyzed using the framing analysis approach.

**Table 1.** Top five posts in the hashtag #AyoKePariaman

Account Name	num of likes	Publication
@ayokepariaman	72.9k	29 Mei 2022
@infosumbar	9987	25 Juni 2025
@Pariaman.tourism	3949	12 Juni 2025
@ayokepariaman	2454	6 Juli 2025
@hagervann, @info_pariaman	2223	25 Juni 2025

Source: Researcher Processed data (2025)

Data collection is limited to a specific timeframe to ensure relevance to the ongoing campaign. The collected raw text data then undergoes a series of cleaning processes to prepare it for analysis by the AI model. This stage includes case folding to convert all text to lowercase. Noise Removal to eliminate URLs, emojis, and special characters. Stopword Removal to filter out common conjunctions using a standard Indonesian stopword list combined with local Minangkabau dialect filters. And tokenization, and stemming to reduce words to their root forms. Duplicate posts and spam were also algorithmically removed (Putu et al., 2021).

### Data Analysis Phase

The data analysis in this study is divided into three main, complementary phases, moving from quantitative analysis to qualitative interpretation. Sentiment Analysis with Machine Learning: In this phase, cleaned text data is analysed to classify each post into positive, negative, or neutral categories (Af'idah et al., 2022). This process utilizes classification models from the realm of supervised machine learning such as Long Short-Term Memory (LSTM) which are based on statistical principles and pattern learning to understand the nuances of human language, but also serve as a tool to identify the emotional valence inherent in audience narratives (Samson et al., 2024). We utilized the Long Short-Term Memory (LSTM) neural network, which is effective for learning patterns in sequential text. To ensure model validity, the dataset was split into 80% for training and 20% for testing, and the model was optimized using 5-fold cross-validation.

The study proceeded by employing the K-Means Clustering technique to segment the audience after determining sentiment. Based on the content and mood of their posts, this technique uses the unsupervised learning data clustering principle to find audience segments or clusters (Carelsa et al., 2023). The optimal number of clusters ( $k=4$ ) was determined using the silhouette score method to ensure distinct and meaningful audience grouping (Muqorobin et al., 2024). To interpret the quantitative results, in the final stage, the researcher also applied Entman's (1993) framing analysis theoretical framework for Qualitative Interpretation (Oelrich & Siebold, 2024). This quantitative stage is a fundamental step before framing analysis is used to uncover how these sentiments are constructed and cognitively framed by tourists.

This theory was selected because of its methodical capacity to dissect the framing and presentation of a problem or event to a viewer. Researchers will examine representative samples from each cluster in line with Entman's framework in order to determine: (1) what issues are most commonly brought up by visitors (Define Problems); (2) who or what is thought to be the cause of the issue (Diagnose Causes); and (3) the moral judgements or assessments made (Make Moral

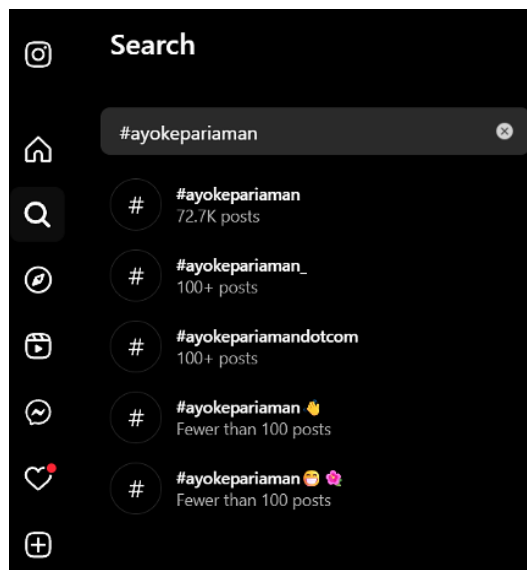
Judgements) (Miazek & Bocian, 2025). The audience's suggestions or solutions are the fourth option, Suggest Remedies. To ensure interpretive rigor, an Inter-Coder Reliability check was applied. Two independent researchers coded a random sample of 10% of the posts. Discrepancies in identifying frames were discussed until a consensus was reached (Cohen's Kappa > 0.80), ensuring that the findings are empirically grounded and not merely subjective interpretations. By elucidating the rationale behind the sentiment and segmentation discovered, this interpretive step acts as a link between computational data and strategic communication ideas (Hughes et al., 2025).

## FINDINGS AND DISCUSSION

### Data Identification and Sentiment Landscape

The initial step in the analysis phase was to identify and validate primary data sources. Prior to automated large-scale data collection, a preliminary manual scraping process was conducted on the social media platform Instagram. This process aimed to ensure that the hashtag #AyoKePariaman was the primary hashtag used in Pariaman's digital tourism campaign and to identify other hashtag variations with significant volume and that needed to be included in the data collection.

The manual search results indicated that #ayokepariaman was the dominant and most frequently used hashtag. Based on the search, this hashtag had been used in 72,700 posts (72.7K posts), indicating a significant volume of digital conversation relevant to analysis, as shown in Figure 2.



**Figure 2.** Search Results for #ayokepariaman on Instagram (Source: Instagram #ayokepariaman, 2025)

Figure 2 also shows several variations of derivative hashtags, such as #ayokepariaman\_ #ayokepariamandotcom, and other variations with added emojis. However, the volume of usage of these variant hashtags is very small, with the number of posts only "100+ posts" or even "Fewer than 100 posts." This very significant difference in volume provides strong justification for focusing the automated data collection process only on the main hashtag, namely #ayokepariaman. This decision was made to ensure that the analyzed dataset has a high information density and truly represents the main narratives developing in society. Thus, the sentiment and framing analysis that will be conducted can be more focused on the most influential data corpus.

### Distribution of Public Sentiment towards the #AyoKePariaman Campaign

After data collection from the main hashtag #AyoKePariaman was completed, the next stage was sentiment analysis using a machine learning model. Of the 72,700 identified posts, after a data cleaning process (removing duplicates, non-text posts, and spam), 45,830 relevant posts were successfully analyzed. The goal of this stage was to classify each post into three sentiment categories

positive, negative, and neutral to map the audience's general perception of the campaign and the Pariaman destination.

Quantitative results from the sentiment analysis indicate that the #AyoKePariaman campaign was generally well-received by the public. Positive sentiment dominated digital conversations, accounting for more than two-thirds of all posts. The following is a breakdown of the sentiment distribution:

**Table 2.** Sentiment Distribution of Posts Using the #AyoKePariaman

Sentiment	Number of Posts	Percentage
Positive	31304	68.3%
Negative	9853	21.5%
Neutral	4673	10.2%
Total	45830	100%

Source: Researcher Processed Results (2025)

Based on the interpretation of sentiment distribution results for the #ayokepariaman digital campaign, positive sentiment dominates at 68.3%. This figure indicates that the majority of narratives circulating under the #AyoKePariaman hashtag are appreciative. Posts in this category generally praise the natural beauty (especially beaches), satisfying culinary experiences, and enthusiasm for cultural events like the Tabuik Festival. This demonstrates the campaign's success in encouraging audiences to share their positive experiences.

A significant portion of neutral sentiment was recorded at 21.5%. Neutral posts largely consisted of informative content. This included event announcements from local media accounts, questions from potential tourists about schedules or access to locations, and descriptive posts without strong opinion. The significant presence of neutral sentiment indicates that this hashtag also serves as a channel for information dissemination and a question-and-answer platform for tourists.

The presence of negative sentiment, at 10.2%, is also noteworthy. Although the smallest portion, the presence of more than 4,600 negative posts is a significant finding. Initial analysis indicates that this negative content often centres on operational tourism issues, such as complaints about cleanliness at tourist sites, congestion during the holiday season, non-standard parking rates, and a lack of adequate public facilities. Overall, this sentiment mapping provides a clear initial picture: the #AyoKePariaman campaign has successfully built a positive image, but there is still room for improvement based on the criticisms and complaints voiced by some audiences. To better understand who is expressing these sentiments and what specific topics they are discussing, the analysis continues with audience segmentation in the next section.

### Audience Segmentation and Topic Mapping Based on Clusters

The sentiment analysis in the previous section provided a macro-overview of public perception. However, to generate actionable insights, it is necessary to understand the audience groups that shape these sentiments. To gain a more granular understanding beyond mere sentiment classification, the analysis continued by applying the K-Means Clustering algorithm. The goal was to group posts with similar characteristics (based on text content and sentiment) into distinct audience segments. This process successfully identified four main clusters (segments), each with its own unique persona, motivation, and topic focus. This cluster identification revealed that the #AyoKePariaman campaign audience is not a monolithic group, but rather consists of various segments with distinct narratives.

**Table 3.** Audience Segmentation for the #AyoKePariaman Campaign

Cluster Name	Percentage	Dominant Sentiment	Key Topic	Theoretical Role
Destination Promoters	41%	Very Positive	Natural beauty, culinary delights, aesthetic photos, invitations to visit.	Agenda Adopters
Information Seekers	24%	Neutral	Questions (prices, schedules, routes), sharing event information.	Active Audiences
Locals & Cultural Reporters	20%	Positive & Neutral	Local pride, Tabuik events, community activities.	Cultural Identity Markers

<b>Constructive Critics</b>	15%	Negative & Neutral	Cleanliness, parking, public facilities, unreasonable prices.	Expectancy Violators
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Source: Researcher Processed Results (2025)

As shown in Table 3, the clustering analysis not only segments users based on topics but also reveals their theoretical roles within the communication ecology. The largest cluster, Destination Promoters (41%), theoretically functions as Agenda Adopters who validate and amplify the official tourism narrative. This cluster is dominated by satisfied travellers, hobby photographers, and micro-influencers motivated to share their beauty and positive experiences (Xie-carson et al., 2023). Their narrative is built through high-quality visual content, such as aesthetically pleasing photographs and drone videos, supported by a highly positive, emotive, and even hyperbolic style of language, such as phrases like "hidden paradise" or "the most beautiful sunset." Their content specifically highlights tourism icons like the beauty of Gandoriah Beach and Angso Duo Island, and praises the deliciousness of local culinary delights like Gulai Kapalo Ikan. Collectively, this group acts as a validation and amplification engine for campaign messages, creating strong social proof and driving interest in visiting (Holder et al., 2023).

The Information Seekers cluster (24%) represents audiences in the planning or consideration stages of a visit, where their interactions are transactional and functional. Consisting of prospective tourists, their content is dominated by straightforward, to-the-point questions, seeking information on logistics, costs, and schedules. Examples of frequently asked questions include, "How much is the boat ticket to Angso Duo?" or "What date is the Tabuik Festival this year?" This cluster also includes local media accounts that disseminate event information without personal opinions. This segment's function is crucial as they are a real indicator of visitor interest and are part of the tourism "conversion funnel." (Boukis et al., 2025).

The Local Citizens & Cultural Reporters cluster (20%) provides authentic color and cultural depth to the #AyoKePariaman hashtag, acting as the "host voice." Driven by pride, Pariaman residents, communities, and MSMEs use this hashtag as a marker of identity. Their content often centers on the Tabuik Festival, which is portrayed not simply as a tourist attraction but as a sacred cultural ritual. They also share everyday moments, promote small businesses, and report on community activities in natural language. This cluster's function is to ensure that the #AyoKePariaman narrative not only contains polished tourism images but also showcases Pariaman as a vibrant city with a strong community and culture.

Conversely, the Constructive Critics (15%) act as Expectancy Violators, representing the group whose high expectations were unmet by the physical reality, leading to the creation of counter-narrative. This is the most valuable source of insights for improvement and serves as an early warning system (Polus et al., 2025). Comprised of tourists who have had negative experiences and concerned citizens, their motivation is to voice concerns for improvement. Their language is direct, specific, and often includes photographic evidence and mentions to official government accounts. Their criticism focuses not on the natural beauty but on aspects of management, summarized in the "3K" issues: Cleanliness (trash), Convenience (illegal parking, unreasonable rates), and Availability of Facilities (dirty/broken toilets). This cluster effectively highlights the gap between the promoted image and the reality on the ground, providing a priority agenda for service improvement. Identifying these segments forms the basis for the framing analysis in the next section, where we will unpack how each group constructs and disseminates its narrative about Pariaman tourism through the #ayokepariaman digital campaign.

### **Framing Analysis: The Contestation of Narratives**

The investigation goes deeper to reveal how each group creates its own story or "frame" regarding Pariaman tourism after the audience segments have been correctly mapped. This section compares and contrasts two of the most powerful and opposing narratives, those created by the "Destination Promoters" and "Constructive Critics" clusters, using Entman's (1993) framing analysis. From quite different angles, these two organisations actively shape the reality of Pariaman tourism. This contestation illustrates the dynamic between Agenda-Setting (official narrative) and Expectancy Violation (lived experience).

### ***Promotional Frame (Agenda Adopters): "Pariaman as an Undiscovered Paradise"***

This frame, constructed by 41% of the audience, aligns perfectly with the tourism board's marketing objectives. The "Destination Promoter" cluster consistently constructs a positive and idealistic frame. In their narratives, the primary problem (defined problem) they address is not Pariaman's internal shortcomings, but rather its status as a beautiful destination whose potential is not yet fully recognized or widely exposed. The cause (diagnosed cause) is diagnosed as a lack of information or extensive promotion, leaving many unaware of its charms. The moral judgment they convey is that missing the opportunity to visit Pariaman is a loss ("it would be a shame not to come here"), and conversely, that visiting is a truly valuable experience worth sharing. Therefore, the solution they offer (suggest remedy) is directly linked to their actions: through explicit invitations, stunning photos and videos, and positive testimonials, they actively recommend and encourage others to visit, as if saying, "See what you're missing out on; come and see for yourself."

### ***Criticism Frame (Expectancy Violators): "Gap between Potential and Management"***

On the other hand, the "Constructive Critics" cluster constructs a much more pragmatic and critical narrative. This counter-frame, built by the "Constructive Critics" (15%), is best explained through Expectancy Violation Theory (EVT). The high expectations set by the vigorous #AyoKePariaman campaign create a benchmark. When visitors encounter operational failures, a negative violation occurs, triggering emotional arousal that manifests as critical UGC.

For them, the main problem (defined problem) is not a lack of promotion, but rather poor on-the-ground management that is not commensurate with the city's natural potential. This problem is specifically defined through concrete issues such as scattered garbage, illegal parking, and poorly maintained public facilities. The cause (diagnosed cause) is straightforwardly attributed to the management, both the local government and the tourism office, who are deemed negligent, unresponsive, or incompetent in carrying out their duties. The moral judgment that emerges is one of disappointment and concern, as they believe the current conditions are harming the tourist experience and damaging the city's image. The proposed solutions (suggested remedies) are demands for improvement and accountability. Through phrases such as "please pay attention to the relevant parties" or by mentioning official accounts, they explicitly demand intervention from the authorities they consider responsible for regulating and resolving the problem.

## **Discussion**

The core finding of this study challenges the traditional perspective of destination branding as a top-down, monolithic projection. Instead, the #AyoKePariaman campaign functions as a negotiated digital space where official narratives and public experiences collide. The analysis reveals two coherent, competing realities: the "Paradise Frame" (supported by 41% of users) and the "Wasted Potential Frame" (voiced by 15% of users). This contestation validates Agenda-Setting Theory in the context of new media. While the tourism authority successfully established the "first-level agenda" (making Pariaman visible) and the "second-level agenda" (emphasizing beauty), the "Destination Promoters" cluster functions as Agenda Adopters, effectively amplifying these positive attributes. However, unlike traditional media audiences who are often passive, this study aligns with recent scholarship (Marchesani & Testa, 2026) suggesting that digital audiences act as active content producers capable of setting a "counter-agenda." The "Constructive Critics" actively reject the "paradise" attribute, proposing alternative attributes such as "dirty" and "mismanaged," thereby challenging the government's monopoly on the destination's image.

Furthermore, the emergence of this critical narrative is best explained through Expectancy Violation Theory (EVT). The idealized promotional materials build high positive expectancies among potential visitors. When on-ground realities such as scattered trash or illegal parking fees, fail to meet these standards, a "negative expectancy violation" occurs. This finding supports previous research by To and Yu (2025), which posits that negative violations in tourism trigger stronger emotional arousal than positive ones, compelling users to vent frustration online to restore cognitive balance. Consequently, the critical user-generated content acts not merely as a complaint, but as a warning signal to others, delegitimizing the official branding efforts (Li, 2025).

Thus, both theories highlight the double-edged nature of User-Generated Content (UGC). On the one hand, UGC accelerates the spread of positive agendas and builds expectations (Cheng et

al., 2021). On the other hand, UGC becomes a powerful channel for voicing these violations of expectations. The primary communication and managerial challenge for Pariaman tourism, therefore, is not simply how to increase promotional content, but how to manage the gap between the expectations created and the reality experienced by visitors. Ignoring the voices of critics is tantamount to allowing negative violations of expectations to dominate the conversation and delegitimize the positive image being built (Charfaoui & Mussard, 2024).

Methodologically, this study advances communication research by demonstrating how Artificial Intelligence (AI) can bridge the "scale vs. depth" divide often found in tourism studies. By integrating LSTM (Deep Learning) and K-Means Clustering with Entman's Framing Analysis, this research proposes a method of "Computational Hermeneutics." The AI models acted as a high-precision filter, sorting 45,830 posts to identify distinct narrative patterns that would be invisible to the naked eye. This methodological synergy allows researchers to detect subtle but structurally significant counter-narratives like the specific grievances of the "Constructive Critics" without getting lost in the noise of big data. This confirms that AI does not replace human interpretation but augments it, enabling a more precise diagnosis of public opinion ecology than traditional surveys or manual coding alone.

From a managerial perspective, these findings require the Pariaman City Tourism Office to pivot from "Vanity Metrics" (likes and shares) to "Sentiment-Based Governance." The "Constructive Critics" cluster should be viewed not as enemies of the brand, but as a valid data source for operational improvement. Practically, this implies a strategy of Responsive Crisis Management. The specific "3K" issues identified (Cleanliness, Security/Parking, and Facilities) must be treated as priority operational targets. Instead of a one-way broadcast of promotional content, the official social media accounts must engage in transparent dialogue, publicly addressing complaints and showing evidence of improvement. By aligning the on-ground reality with the digital promise, the government can mitigate the negative expectancy violations that fuel critical narratives, effectively closing the gap between the promoted image and the lived experience.

## CONCLUSION

This study concludes that the digital image of Pariaman tourism is not a fixed entity controlled by official authorities, but a negotiated reality constructed through the interplay of institutional branding and public discourse. By integrating AI-based sentiment analysis with framing theory, we identified that while the #AyoKePariaman campaign successfully set a positive agenda for the majority of the audience (68.3%), a significant counter-narrative emerged from the "Constructive Critics" cluster (15%). Theoretically, this study validates the Expectancy Violation Theory in a digital context, demonstrating that operational failures specifically regarding cleanliness and illegal levies trigger negative expectancy violations that compel users to construct "Wasted Potential" frames to challenge the official "Paradise" narrative.

Practically, these findings suggest that destination managers must shift from a one-way promotional model to Sentiment-Based Governance. The feedback from the critic cluster should be utilized as a strategic data source for operational improvements, transforming the digital marketing strategy into a responsive crisis management system that actively closes the gap between promotional promises and on-ground realities.

Limitations and Future Research Despite these contributions, this study has several limitations that must be acknowledged. First, the data collection was restricted exclusively to Instagram, potentially introducing platform bias. The demographics and content behaviors on Instagram may differ from those on other platforms like TikTok (which emphasizes short-form video trends) or TripAdvisor (which focuses on detailed reviews), possibly limiting the generalizability of the audience segmentation. Second, methodological constraints exist regarding the AI classification accuracy. Although the LSTM model performed robustly, challenges remain in accurately detecting sarcasm and local cultural nuances, specifically the Minangkabau dialect mixed with Indonesian, which may have led to minor misclassifications in sentiment polarity. Third, the data collection relied on public accounts, potentially excluding private but influential discourse within closed community circles.

Future research should address these gaps by conducting cross-platform analyses to compare narrative contests across different social media ecosystems. Additionally, longitudinal studies are recommended to track how public sentiment evolves over time in response to specific government policy interventions. Finally, comparative studies with other similar destinations in West Sumatra would be valuable to determine if the "Wasted Potential" frame is a localized issue or a broader systemic challenge in regional tourism management.

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