

Green Riding or Green Washing?

Consumer Responses to the Inclusion of Sustainability in Sport Product Marketing

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Scan For More Details

How do mountain bikers respond to environmental claims in bike marketing?

To answer this question, we looked at comments on the mountain biking website Pinkbike to identify whether cyclists respond differently to articles which discuss sustainability versus those that do not.

Background

Previous research has suggested that a gap exists in understanding the best way to communicate the environmental benefits of sport products (Anagnostopoulos et al., 2025). This is despite research that shows that consumer concern about the environment is associated with purchase intention (Thormann et al., 2025) and that consumers are willing to pay for increased sustainability (Spindler et al., 2023). We also know that source credibility is a key concern when it comes to communicating the sustainability of sport (Inoue & Kent, 2011).

An informal 2017 poll conducted on Pinkbike showed decidedly mixed opinions on whether mountain bikers considered the environment when making purchases (Figure 1). In 2021, Pinkbike again polled readers, this time on whether information on the carbon footprint of a bike would influence their purchase decisions, with responses being generally negative (Figure 2).

It is in this context that we develop the following research questions:

RQ1) Do readers respond differently to articles which mention sustainability versus those that do not?

RQ2) Do the responses to discussions of sustainability differ based on an article's source and/or topic?

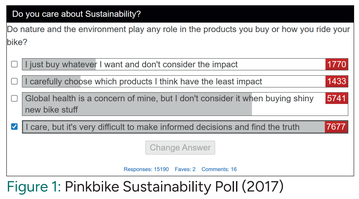


Figure 1: Pinkbike Sustainability Poll (2017)

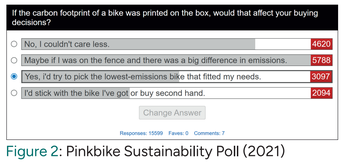


Figure 2: Pinkbike Sustainability Poll (2021)

Data Collection

To analyze the research questions, we first scraped article and comment data from Pinkbike. In this pilot stage, we collected 19 articles, which contained 2,051 comments. In the full data collection, we aim to collect data for every bike-related article published within the previous 3 years. For each article, we collected the date published, the author, the article title, and tags relating to article classifications (e.g., review article, press release, brand(s) mentioned, etc.). For each article, we collected all comments, including top-level comments and replies, including community "votes" on the comment.

Method

To address RQ1, we collected descriptive statistics for each article, including number of comments per article and overall number of comment upvotes. We then flagged whether an article mentioned any sustainability-related keywords. We also flagged whether any comments mentioned sustainability-related keywords. The most common keywords within articles and comments are shown in Figures 3 and 4 respectively. We then conducted sentiment analysis, utilizing both BING and AFINN lexicons (Hu & Liu, 2004; Nielsen, 2011), weighted by net votes (Figure 5).



Figure 3: Article Keywords



Figure 4: Comment Keywords

To address RQ2, we utilized the article categorization tags to determine the message source. In our pilot data, there were four distinct kinds of article; "Reviews", which are in-depth examinations of a product from the author themselves; "First Rides", which are short reviews based on one ride, which are normally conducted by brands as part of product launches; "First Looks", which are short articles with an author reacting to or analyzing the launch of a new product; and "Press Releases", which are articles written by the brand themselves announcing a new product. We also conducted cross-tab analyses looking at the interaction between message framing and message source. While the sample size in the pilot is too small to establish robust findings, we nevertheless present preliminary results which will inform next steps.

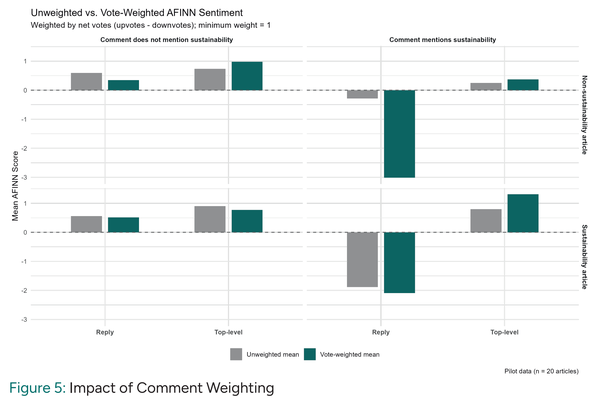


Figure 5: Impact of Comment Weighting

Preliminary Results

For RQ1 (message framing), we found minor differences in overall engagement on articles which mentioned sustainability versus those that did not. Average comments were higher on non-sustainability articles (115.9 vs 99.1), although median number of comments was higher on sustainability articles (112 vs. 77). Comment sentiment was marginally higher on sustainability articles for top-level comments, though interestingly, reply comments were more negative on sustainability articles than top-level comments (as shown in Figure 6).

For RQ2 (message source), we found that "Reviews", "First Looks", and "First Rides" got similar levels of engagement, but "Press Releases" recieved substantially fewer comments than other article types. Comment sentiment was largely similar across article types, although replies were almost universally more negative than top-level comments.

A surprising result was that replies which contained sustainability keywords themselves had negative sentiment across all article categories (see Figure 7). The same was not true for top-level comments.

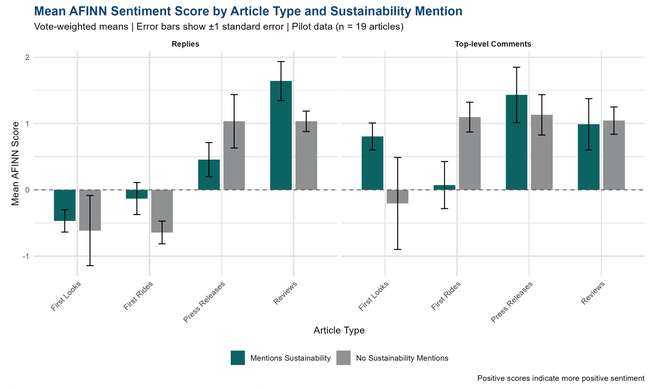


Figure 6: Sentiment Scores by Article Type

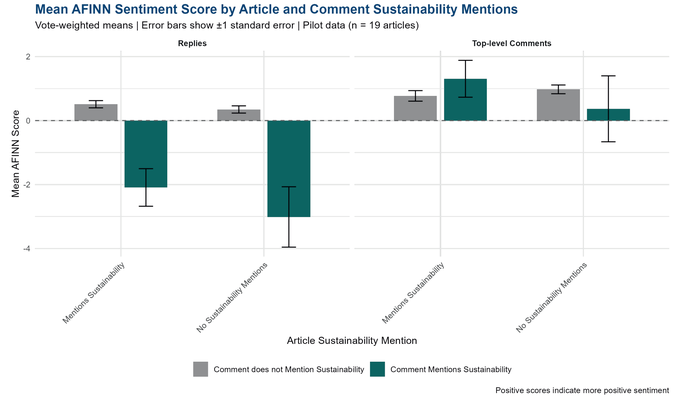


Figure 7: Top-Level Vs. Reply Sentiment

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