Meat the Message: Analyzing Consumer Engagement with "Climate-Friendly" Beef Posts

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Introduction

Agricultural sustainability, a strongly debated topic, has become an important discussion subject. Consumers and agriculturalists alike have debated what specific sustainable practices should be implemented (McIsaac, 1994). It has become critical to communicate with consumers to ensure agricultural products meet their demands. As an example, Tyson's Climate-Smart Beef Program initiative announced a climate-friendly beef brand, which seeks to promote documented metrics toward beef sustainability efforts (Tyson, 2024). However, the brand has faced negative press due to these claims (Gustin, 2024). Consumers have been found to value sustainability (Simpson & Radford, 2012), yet they tend to not fully understand sustainability labels and climate-friendly claims (Gifford & Bernard, 2011). Due to negative attention and lack of understanding, it is critical to understand how the public responds to information about climate-smart beef on social media, a platform heavily influencing perceptions of meat products (de Araujo et al., 2022).

Theoretical Framework

To guide this study, we utilized the Elaboration Likelihood Model (ELM), which states there are two cognitive pathways when taking in information (Cacioppo & Petty, 1981). The central path analyzes messages in-depth and results in long-lasting attitude change. The peripheral path relies on cues from elements they hear or see to decide to accept the message. For example, some people may process a message because they are interested in the topic in front of them, whereas others may process a message because of an emotional story, eye-catching graphic, or credible source. Following Brown and Gold (2014), we used thought listing to determine how individuals processed information. In this technique, participants are asked to openly record their opinions after being exposed to a message (Rumble & Irani, 2016). The number and type of thoughts help us to understand whether participants peripherally or centrally processed information (Cacioppo et al., 1997). This study aimed to determine how consumers react to a social media post about beef sustainability. The results of this study will allow communicators to better construct tailored messages to better inform consumers.

Methodology

To conduct this study, we utilized Qualtrics market research to recruit a non-probability opt-in sample of U.S. adults who were 18 years or older. To ensure the sample was representative of the population, we set quotas, representative of the U.S. Census for gender, income, and U.S. regions (Lamm & Lamm, 2019; Lehdonvirta et al., 2021). To complete the study, participants (N = 803) first viewed a Facebook post about a mock climate-friendly beef brand. After, the participants were asked to select their emoji reaction (i.e., Like, Heart, Care, Haha, Wow, Sad, Angry, or None). Next, the participants were asked if they would comment on the post (0 = *No*, 1 = *Yes*). Participants who responded "yes" were asked to provide what they would comment on the post. Finally, the participants were asked if they would choose to reshare the post to their own page or not. Following this data collection, descriptive statistics were conducted to understand the reactions. A frequency count was performed on both the emoji selection and the reshare choice. A qualitative thematic analysis was also conducted of the comments to find emergent themes following standards outlined by Erlandson et al. (1993).

Results

Our results indicated 71.7% (n = 576) of participants would react positively with "Like," "Love," or "Care;" whereas 1.9% (n = 15) would react negatively with "Sad" or "Angry." Additionally, we found 39.5% (n = 317) of people would re-share the post.

Table 1

Frequency and Percentages for the Participants' Post Reactions

Reaction	Frequency Count	Frequency Percentage
Positive[a]	576	71.7%
Like	399	49.7%
Love	115	14.3%
Care	62	7.7%
Negative[a]	15	1.9%
Sad	10	1.2%
Angry	5	0.6%
Other[a]	46	5.7%
Wow	31	3.9%
Haha	15	1.9%
No reaction	166	20.7%

[a] Each sentiment category provides the total frequencies of the types of reactions.

Of the 22% (n = 177) of respondents who would comment on the post, 58.2% (n =103) were interested, glad to see efforts toward sustainability, or generally positive. Comments in this category included, "Can't wait to try it," "Love this," and "A very positive move for our earth." However, 20.3% (n = 36) seemed neutral on the topic or stated that they needed more information. They had questions like, "How are the cattle treated?" "Where is it sold?" "Can you elaborate?" and "How is beef raised to be sustainable?" Further, 8.4% (n = 15) of commenters had a more negative approach and were unsatisfied with the sustainable efforts, unsupportive of eating beef, or generally negative. Comments here included things like, "10% reduction is only a start. We have to do more." "Stop killing cows," and "Not a fan."

Conclusions/Recommendations

Analysis revealed most of the reactions to the post were positive. This finding suggests consumers are glad to see climate-friendly initiatives, which is contradictory to Tyson's negative press, most consumers are not looking for data to backup those claims. Still, there were consumers who do need more information, which confirms other prior research suggesting the public has a limited understanding of the efforts that producers are making to be more sustainable (Simpson & Radford, 2012). The additional information would answer questions, provide details relating to beef sustainability initiatives, and increase the individual's message elaboration (Petty & Cacioppo, 1986). We recommend practitioners include clear and specific content through their messaging or through an option to find more information, like a link or QR code. Further, educators should teach the importance of crafting strategic messages and writing effective social media copy. Future research should explore if respondents seek out more information when presented and where attention is allocated when consumers are exposed to posts about beef.

References

Brown, M. G., & Gold, R. S. (2014). Cognitive responses to positively and negatively framed health messages: A thought-listing study. *Psychology, Health & Medicine, 19*(6), 724–729. https://dx.doi.org/10.1080/13548506.2013.871305

Cacioppo, J. T., & Petty, R. E. (1981). Social psychological procedures for cognitive response assessment: The thought listing technique. *Cognitive Assessment*, 309–342.

Cacioppo, J. T., von Hippel, W., & Ernst, J. M. (1997). Mapping cognitive structures and processes through verbal content: The thought-listing technique. *Journal of Consulting and Clinical Psychology, 65*(6), 928–940. https://doi.org/10.1037//0022-006x.65.6.928

de Araújo, P. D., Araújo, W. M. C., Patarata, L., & Fraqueza, M. J. (2022). Understanding the main factors that influence consumer quality perception and attitude towards meat and processed meat products. *Meat Science,* 193, 108952. https://doi.org/10.1016/j.meatsci.2022.108952

Erlandson, D., Harris, E., Skipper, B. & Allen, S. (1993). *Doing naturalistic inquiry: A guide to methods.* Newbury Park, CA: Sage Publications

Gifford, K., & Bernard, J. C. (2011). The effect of information on consumers' willingness to pay for natural and organic chicken. *International Journal of Consumer Studies*, *35*(3), 282–289. https://doi.org/10.1111/j.1470-6431.2010.00929.x

Gustin, G. (2024, May 8). *The Department of Agriculture rubber-stamped Tyson's "climate friendly" beef, but no one has seen the data behind the company's claim.* Inside Climate News. https://insideclimatenews.org/news/08052024/usda-tyson-climate-friendly-beef-claim/

Lamm, A. J., & Lamm, K. W. (2019). Using non-probability sampling methods in agricultural and extension education research. *Journal of International Agricultural and Extension Education, 26*(1), 52-59. https://doi.org/10.5191/iaee.2019.26105

Lehdonvirta, V., Oksanen, A., Räsänen, P., & Blank, G. (2021). Social media, web, and panel surveys: Using non-probability samples in social and policy research. *Policy & Internet, 13*(1), 134-155. https://doi.org/10.1002/poi3.238

McIsaac, G. (1994). Sustainability and sustainable agriculture. Sustainable Agriculture in the American Midwest: Lessons from the Past, Prospects for the Future, 9, 25-26. https://tinyurl.com/26p5e9fh

Rumble, J. N., & Irani, T. (2016). Opening the doors to agriculture: The effect of transparent communication on attitude. *Journal of Applied Communications*. *100*(2), 6. https://doi.org/10.4148/1051-0834.1030

Simpson, B. J., & Radford, S. K. (2012). Consumer perceptions of sustainability: A free elicitation study. *Journal of Nonprofit & Public Sector Marketing*, *24*(4), 272-291. https://doi.org/10.1080/10495142.2012.733654

Tyson Foods. (2024). *Climate smart beef program*. Tyson Foods. Retrieved February 25, 2025, from https://www.tysonfoods.com/climate-smart-beef-program

Zhou, T., Lu, Y., & Wang, B. (2014). Examining online consumers' initial trust building from an elaboration likelihood model perspective. *Information Systems Frontiers*, *18*(2), 265–275. https://doi.org/10.1007/s10796-014-9530-5