



Cueing up! How other-oriented semantic cues in livestream shopping enable sustainable food consumption

Ching Sophia Yiu, Daniel Rayne, Fatima Madani & Ashish Kumar

To cite this article: Ching Sophia Yiu, Daniel Rayne, Fatima Madani & Ashish Kumar (29 Apr 2025): Cueing up! How other-oriented semantic cues in livestream shopping enable sustainable food consumption, Journal of Strategic Marketing, DOI: [10.1080/0965254X.2025.2496211](https://doi.org/10.1080/0965254X.2025.2496211)

To link to this article: <https://doi.org/10.1080/0965254X.2025.2496211>



© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 29 Apr 2025.



Submit your article to this journal [↗](#)



Article views: 1052



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 1 View citing articles [↗](#)

Cueing up! How other-oriented semantic cues in livestream shopping enable sustainable food consumption

Ching Sophia Yiu, Daniel Rayne, Fatima Madani and Ashish Kumar

School of Economics, Finance and Marketing College of Business and Law, RMIT University, Melbourne, Australia

ABSTRACT

This study investigates the semantic nuances food producers and livestream sellers use in livestream shopping to instigate sustainable food consumption. Guided by social conformity and self-construal theory, we suggest the community environment specific to livestream shopping over other shopping scenarios (e.g. in-store) enhances conformity among viewers. Thus, we theorize that semantic cues focusing on “other” are more influential than those focusing on “self” when it comes to sustainable food consumption. We analyzed 17,520 minutes of speech from livestream sellers selling food products to identify the top 20 keywords associated with sustainable food consumption. Using econometric modeling on 416 products using these keywords, we determined that other-oriented cues were more influential than self-orientation cues in stimulating sales of sustainable foods. Further, we showed the relationship between other-oriented cues and sales of sustainable food is amplified when more sellers promote the product. We provide both theoretical and managerial implications which are discussed.

ARTICLE HISTORY

Received 13 August 2024

Accepted 15 April 2025

KEYWORDS

Sustainability; livestream shopping; sustainable food consumption; semantic cues; text analysis

1. Introduction

The world is in a ‘global food crises’, underlined by hunger, malnutrition, overconsumption, and unsustainable practices (United Nations, 2024). To help overcome these challenges, governments, businesses, and other key stakeholders (e.g. lobby groups, not-for-profit organizations) are developing or implementing systems to reduce food inequalities, achieve zero hunger and decrease food waste (United Nations, 2024). For example, governments are creating initiatives such as the European Union’s Farm-to-Fork strategy or China’s Farmland Protection Subsidy, valued at 120.49 billion yuan to support green agricultural practices (Ammann et al., 2023). Further aiding the movement to sustainable food production are increased consumer interest, knowledge, demand and purchasing of sustainable food (S. Li & Kallas, 2021; McKinsey, 2023a). Defined, sustainable food consumption is the practice of selecting foods that reduces ecological impact (e.g. minimizing

CONTACT Ching Sophia Yiu  s3760695@student.rmit.edu.au

© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

the ecological footprint and promoting ethical treatment of animals), ensures fair labor practices and supports local economies (Genova & Allegretti, 2024).

According to the World Economic Forum (2023), 65% of consumers want to make correct spending decisions concerning sustainable food. Further, a recent study by McKinsey (2023a) showed consumer packaged goods that make ESG (environmental, social and governance) claims, experienced a 1.7 percentage point advantage over products not making these claims, thus emphasizing the environmental responsibility and business case benefits of this approach.

Given such benefits, businesses are increasingly adopting key marketing strategies to encourage consumer uptake of sustainable food options. For example, marketers are calling on segmentation (Lacroix & Gifford, 2019), informational message content (Voinea et al., 2020), and social marketing (Kim et al., 2023) strategies. Yet, understanding the role marketing plays in stimulating sustainable food consumption is limited, thus presenting pertinent research gaps (N. Nguyen et al., 2024). Specifically, most research in this space has examined consumer-related factors influencing sustainable food consumption such as environmental concern (Welch et al., 2021), health benefits (Rizzo et al., 2020), human rights considerations (Vargas et al., 2021), culture (Gohary et al., 2025) and taste and quality preferences (Ford et al., 2023) with little attention paid to marketing-related factors. Within this limited scope of work, research on marketing influences related to sustainable food consumption generally includes broader-level strategies such as pricing, branding, and retailing components (e.g. product placement, promotions) (Genova & Allegretti, 2024; Reisch et al., 2013; Nascimento & Loureiro, 2024). However, often overlooked are marketing communication-related factors such as tactics used to stimulate or drive psychological motives. Explicitly, within extant studies, there is a dearth of research addressing nuanced approaches to marketing communication mechanisms such as semantic cues to aid sustainable food consumption and how digital tools can enable this (N. Nguyen et al., 2024). To improve the overall success of sustainable food consumption, producers and sellers must ensure a deliberate linguistical approach to their marketing communications, given the importance of words in shaping consumers reactions (Lagomarsino & Lemarié, 2021).

To help address these research gaps related to marketing communication mechanisms and the use of digital tools to improve the uptake of sustainable food consumption, this study examines marketing communication tactics sustainable food producers and sellers use in livestream shopping.

Livestream shopping has experienced exponential growth into a \$512 billion market (CNBC, 2023), with further growth projected at a compound annual growth rate of 21.2% from 2024 to 2030 (Grand View Research, 2023). For sustainable food brands, livestream shopping offers food producers and livestream sellers a popular communication and distribution mechanism to reach viewers and encourage purchase of their sustainable food offerings (Lee & Wan, 2023; Wu & Yang, 2021). Specifically, during livestream shopping sessions sellers highlight products via detailed product information and demonstrations to showcase seasonal, local, and eco-friendly attributes of sustainable foods to viewers (M. Wang & Fan, 2021). Approximately 7.4% of livestream sellers specialize in food products, making it the second most popular category after apparel and fashion (McKinsey, 2021) and in certain markets such as China and Europe, consumers

commonly use livestream shopping to purchase grocery items (McKinsey, 2023b) Further, 54% of livestream shopping viewers purchased groceries through livestreaming shopping, making it the top category for most purchased products (McKinsey, 2023b), thus demonstrating its significant potential in selling sustainable food products.

Prior work exploring sustainable food consumption commonly draws on the role of self- and other- orientations as drivers to consumer behavior (e.g. T. Nguyen et al., 2019; Yadav, 2016). Grounded in self-construal theory, here, *self-orientation* (e.g. egoistic values or health concerns) reflects self-interested benefits associated with particular actions, whereas *other-orientation* (e.g. altruistic values, biospheric values and/or environment concern) is concern for the welfare of others (Meglino & Korsgaard, 2006).

While self-oriented and other-oriented drivers can co-exist, research has generally exhibited when it comes to sustainable food consumption, self-oriented drivers are stronger (T. Nguyen et al., 2019; Yadav, 2016), or other-oriented drivers have no impact (Smith & Paladino, 2010; Yadav & Pathak, 2016).

Despite research highlighting the existence and effect of both self-oriented and other-oriented drivers of sustainable food consumption, understanding the nuanced conditions around these connections is limited. Explicitly, existing research fails to consider how specific marketing communication mechanisms, including semantic cues might draw out self- versus other- orientations. Understanding these nuances is important given the impact of linguistics in shaping individual's perceptions and the role they play in activating consumption-related behaviors (Lagomarsino & Lemarié, 2021; Su et al., 2024). Thus, in the sustainable food context, producers and sellers should appropriately identify specific words that enhance consumer responsiveness to marketing messages to improve the uptake of sustainable food options, especially in retail environments where brand competition is high, such as livestream shopping (S. Wang & Wang, 2023). Further, there is paucity in knowledge regarding the role shopping context plays in shaping other-orientation over self-orientation given context significantly influences activation of the collective over the individual (Gardner et al., 1999). We argue livestream shopping is a retail environment where other-orientation is more pronounced. Specifically, we suggest the community value livestream shopping instils (Zhang et al., 2023), shapes consumer behavior differently compared to alternative sustainable food shopping contexts (e.g. shopping at the grocery store, traditional e-commerce). More precisely, in livestream shopping, sellers use various community-building tools (e.g. online chatting, engagement and interaction with sellers, and gamification) to aid stronger relational bonds between viewer and seller and viewer and viewer (Ni & Ueichi, 2024; Zhai & Chen, 2023). Here, both sellers and viewers in the community can share their interests with one another, thereby exerting influence on others (Park & Feinberg, 2010). Through this, viewers likely shape their consumption to align more with community members (Park & Feinberg, 2010), and thus, tend to be more other-oriented than self-oriented when livestream shopping. Social conformity theory (Asch, 1955), where social pressure causes an individual to adapt their behavior to be the same as group members and self-construal theory (Singelis, 1994), where individuals show flexibility and dynamism in their construal of self (individual versus collective) provide support for this.

To investigate our theorization, we analyzed the semantic cues used in product descriptions (as shown in Figure 1) of the top-selling sustainable food products on livestream shopping. Product descriptions are particularly important in an



Figure 1. Demonstration of livestream shopping session.

e-commerce environment given viewers cannot directly view, touch, or physically experience products, and therefore, rely on different semantic cues in product descriptions to aid their decision-making (Hsee et al., 2009). Further, exclusive to livestream shopping, product descriptions accompany live show processes (e.g. demonstrations, images, body language, tone, facial expressions) that instill a more holistic understanding of product offerings for viewers, while used as an additional tool to stimulate discussions between viewers and sellers (Meng et al., 2021; Xu et al., 2023). Consequently, product descriptions enable livestream sellers to call on different semantic cues to reach viewers, while viewers use such cues to aid their decision-making, thus highlighting their importance to the livestream shopping environment.

Findings from our analyses show semantic cues shaped around other-orientations are more effective in driving sales than semantic cues that focus on self-orientation.

Consequently, our research makes three critical contributions to the sustainable food consumption and livestream shopping marketing literature. First, we counter the majority of research that finds self-orientation a stronger driver of sustainable food consumption than other-orientation (e.g. Yadav & Pathak, 2016). Specifically, in-line with self-construal theory, where individuals demonstrate flexibility when it comes to self-interest (versus other), we show livestream shopping provides a context where the 'other' is elevated above 'self'. Second, we show the nuanced semantic cues food producers and livestream sellers use to stimulate such psychological shifts to increase sales of sustainable food options. Third, we find the number of livestream sellers moderates this effect, further enhancing understanding of sustainable food consumption in livestream shopping.

Our paper is organized as follows. First, we provide a theoretical background to generate our hypotheses. Next, we discuss our methodology and results. Following this,

we present our discussion, including theoretical and practical implications. Finally, we conclude with research limitations and future research suggestions.

2. Theoretical background and hypotheses

2.1. Promoting sustainable food in livestream shopping and conformity

As a disruptor to traditional e-commerce and brick-and-mortar shopping, livestream shopping is reforming the retail industry (Gu et al., 2024; Ki et al., 2024). Specifically, livestream shopping is at the nexus of live video streaming, online shopping and influencer marketing, all enabling a more connective and involved shopping experience (Gu et al., 2024). During livestream shopping sessions, viewers can obtain information and evaluate products in real-time (Ki et al., 2024) by asking sellers questions, through receipt of product descriptions and demonstrations, and interacting and engaging with one another, thus, generating a sense of community (Zhang et al., 2023).

Participatory community creation is a key feature of livestream shopping that separates it from other shopping experiences. That is, traditional and e-commerce shopping are more transactional, whereas, the social networking of livestreaming enables many-to-many communication, where each viewer has potential to be heard (Tian & Li, 2023). Through this, viewers draw on community members to aid their purchase decisions (Zhang et al., 2023). Consequently, producers and livestream sellers actively leverage the social elements of livestream shopping to formulate a community experience. For example, sellers use tactics such as real-time polls, Q&A sessions, games, microphone access, encouraging viewer photo, video and story sharing, and allowing viewers to suggest topics (Ni & Ueichi, 2024).

We argue that engendering community where common interests, views and goals are shared, increases the probability of conformity among viewers, as members exert influence over one another (Park & Feinberg, 2010). Here, conformity can be defined as ‘compliance with group norms, susceptibility to group influence, and behavioral changes in consumption behavior due to a reference group’ (Park & Feinberg, 2010, pp. 197–198). This view is supported in previous green literature (e.g. D. Li et al., 2020; Ruan et al., 2022), showing conformity as a principal influence on green purchasing behavior resulting from the social power the sustainability movement generates (Ruan et al., 2022).

Further supporting this is the flexibility and dynamic nature of self-construal where one may situationally alternate between ‘self’ versus ‘other’ (White & Simpson, 2013). *Self-orientation* is defined as the ‘psychological processes and behaviors that support and promote one’s own person’ and is associated with the pursuit of individual goals and self-esteem (Gobel & Miyamoto, 2024, p. 57). In other words, self-orientation refers to self-interested benefits associated with particular actions and commonly manifests via egoistic values or health concerns in sustainable food consumption (Yadav & Pathak, 2016). Conversely, *other-orientation* is defined as the ‘psychological processes and behaviors that support and promote others, the relationships with others, and the group ...’ (Gobel & Miyamoto, 2024, p. 57) and in the sustainable food context is often explored via altruistic values, biospheric values and/or environmental concern (Smith & Paladino, 2010). Accordingly, self-construal theory suggests that individuals can oscillate between

stronger self-orientation and other-orientation depending on the context (Singelis, 1994). When self-orientation is activated, individuals focus on personal goals and standards, whereas, when other-orientation is actuated, people focus on the goals of the group and principles held by others over personal goals (Gardner et al., 1999; White & Simpson, 2013). Given the community environment associated with livestream shopping where bonds are formed among viewers and between viewers and sellers, we argue that livestream shopping provides a context that elevates the 'other' above 'self'.

Here, we believe livestream shopping viewers will be significantly influenced by others when it comes to purchasing sustainable food options (Lazaric et al., 2020; Soneji et al., 2015). Hence, when livestream sellers use other-orientated semantic cues (e.g. words highlighting environmental concern) to promote sustainable food options to viewers, these are likely more effective than using self-oriented semantic cues (e.g. words emphasizing health benefits) in stimulating purchase of these food options. Therefore, we hypothesize:

H1: There is a positive association between the use of other-oriented semantic cues in livestream shopping and stimulating sustainable food purchases, compared to the use of self-oriented semantic cues.

2.2. Moderating effect of number of sellers

Brands actively promote products to 'community members' through livestream shopping platforms (Ki et al., 2024). Due to limited marketing budgets, collaborating with a larger number of less popular livestream sellers allows brands to reach a broader audience (Lv et al., 2023). Prior research has found that employing a larger group of sellers outperforms using only a few big sellers (Gu et al., 2024). This is because when more livestream sellers promote a product, this accelerates the promotion effect to enhance brand familiarity among larger audiences, thus resulting in greater likelihood of conformity given the larger number of viewers exposed to these products (Lv et al., 2023).

Further, in a social media influencer context, Himelboim and Golan (2023) show that when vegan brands hire groups of influencers to promote similar products, this bridges social media influencer clusters with each other's followers, therefore, generating a stronger sense of community among these followers.

As the number of livestream sellers promoting a product increases, so does potential viewership and community development, therefore, inducing a conformity tendency (Park & Feinberg, 2010). Previous research concerning sustainable products has shown the environmental concerns of relevant others can lead consumers to purchase green products (Ruan et al., 2022). Therefore, when a sustainable food product description calls on other-oriented semantic cues and more livestream sellers are promoting this product, this should improve sales as exposure to these messages among a greater viewership occurs (Himelboim & Golan, 2023). As such, we hypothesize that:

H2: The association between other-oriented semantic cues and sales will be strengthened as the number of sellers promoting sustainable food products increases.

3. Methodology and data

To address the research gaps highlighted previously, the primary aim of this study is to investigate whether other-oriented versus self-oriented semantic cues are more influential on sustainable food consumption in livestream shopping. To achieve this, we conducted two study phases. Phase 1 involved text analysis to analyze the authentic semantic cues sustainable food producers and livestream sellers use to promote their product offerings. This enabled a more accurate operationalization of different semantic cues (other-oriented or self-oriented) used in product descriptions, thus facilitating a nuanced understanding of marketing drivers in this space. Phase 2 applied an econometric model to examine the association between the different cues identified in Phase 1 and sales of sustainable food (capturing both units and volume sales) in livestream shopping sessions and the moderating role of increased number of sellers. Here, data were collected by monitoring real livestream shopping sessions and observing actual consumer transactions, thus providing genuine insight into the role semantic cues play in shaping sustainable food consumption. Therefore, we were able to capture true consumer behavior above that of intention.

Specifically, we collected data from Douyin (also known as TikTok in China). Douyin was selected due to its significant livestream shopping feature, which positions it among the top three livestream shopping platforms in China, achieving the highest gross merchandise value of \$77 billion (Wu & Yang, 2021). First, we obtained a dataset that included a list of existing sustainable food products over one-month (6 May-6 June 2024), along with their detailed product descriptions, sales units, and sales volumes from Douyin's livestream shopping sessions. This data was sourced from Huitun, a professional data analytics and monitoring platform specifically designed for Douyin, which is widely recognized in academic research for its high degree of accuracy (Zheng et al., 2022). Additionally, we collected 17,520 minutes of video data directly from the livestream platform and its associated livestream sessions, which were subsequently transcribed into textual format. Following this, we conducted a text analysis that integrated insights from both the product descriptions and livestream transcripts and ultimately categorized product descriptions into self-oriented and other-oriented semantic cues. Further detail of each phase is provided below.

3.1. Phase 1: text analysis

In Phase 1, we adopted the text analysis approach outlined by Berger et al. (2020) which comprises four key steps: (1) data preprocessing, (2) text analysis, (3) converting the text into quantifiable measures, and (4) validating the extracted text and measures.

Following the acquisition of data via Douyin, the other components of the data preprocessing stage involved cleaning the data (via removal of nonmeaningful text) and removing stop words such as 'a' and 'the'. To do this, a comprehensive list of Chinese stop words was obtained from Harbin Institute of Technology. Following this, text tokenization occurred through Jeiba which enabled us to effectively segment sentences into tokens (i.e. words or small sentences), thereby enabling a specific group of words for analysis.

After data preprocessing, the second step as outlined by Berger et al. (2020) is text analysis. Here, we used entity extraction, which identifies the meaning of individual words or the co-occurrence of words. To effectively conduct entity extraction, Berger et al. (2020) suggests using dictionaries, or predefined word lists, to classify entities into specific categories. For our study, to accurately define and analyze sustainable food consumption, we developed a custom dictionary tailored to the unique characteristics of text data in this field via key institutional documents (i.e. China Green Food Development Centre, 2022; UK Sustainable Development Commission, 2005). These documents provided authoritative definitions and criteria for sustainable food. To ensure the accuracy of the dictionary, each author independently identified keywords, followed by a matching and reconciliation process for consistency and accuracy in the final list of terms.

The third step involved converting the text into quantifiable measures. Count measures have been widely used to quantify textual data, providing valuable insights by assessing the frequency of specific entities, their co-occurrences, and their relationships (Berger & Milkman, 2012). These metrics allowed us to evaluate the prevalence and accuracy of the custom dictionary developed for this study. Ensuring alignment between the custom dictionary and actual consumption scenarios observed in livestream shopping sessions was essential to maintaining the validity of our analysis. Using the Jieba Python library, we calculated the frequency of entities associated with sustainable food from the livestream transcripts. Furthermore, we identified 416 food products containing these keywords in their product descriptions, as promoted during livestream sessions on Douyin. Figure 2 presents the frequency of the top 20 words related to sustainable food in the livestream transcripts.

Finally, the last step involved assessing the validity of the extracted text and measures. In our study, we emphasized the concurrent validation of variable operationalization through an open coding process, comparing our variables with the drivers of sustainable consumption

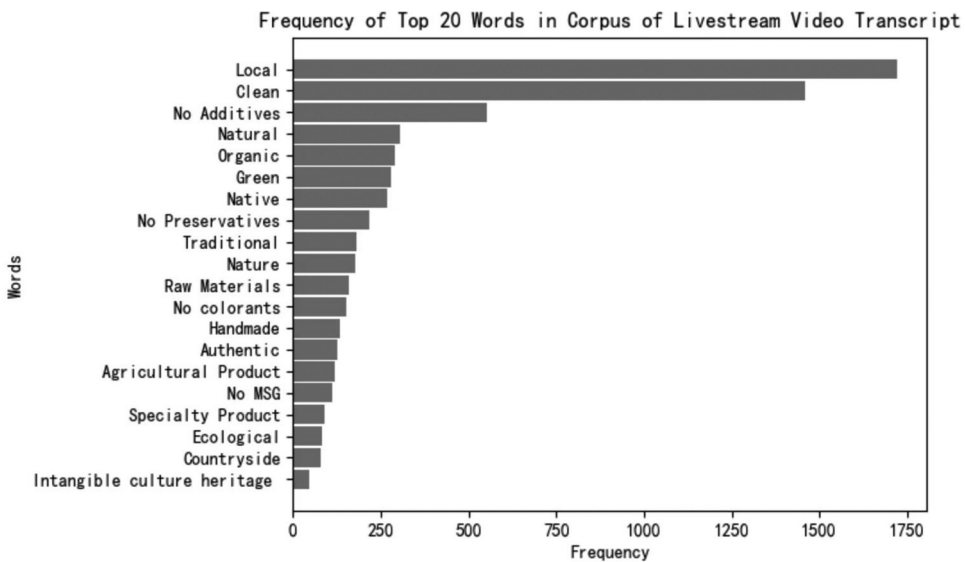


Figure 2. Top 20 keywords associated with sustainable food consumption in livestream video transcript. The translation of Chinese tokens into English results in multiple words. Consequently, the top 20 words may have multiple terms representing the same meaning.

identified in prior literature (e.g. Gohary et al., 2023). This was combined with high-frequency vocabulary results obtained from the text analysis to further classify sustainable food product descriptions and identify the characteristics of self-oriented and other-oriented cues, thereby operationalizing the independent variables. The open coding process involved three key steps: labeling, conceptualization, and categorization. The process began with the analysis and refinement of all collected keywords, during which each keyword was assigned an interpretative label. These labeled keywords were then integrated into specific sub-topics through a systematic process of thematic interpretation. Six prominent sub-topics emerged, focusing primarily on two overarching areas: self-orientation (including attributes such as healthiness, chemical-free characteristics, and natural ingredients) and other-orientation (encompassing aspects such as sustainable production, agricultural practices, and environmental impact). Connections between these core categories and sub-topics were systematically developed to facilitate a meaningful interpretation of the data. Subsequently, sub-topics with similar meanings were aggregated into main topics to create a cohesive categorization framework. The purpose of the open coding process was to ensure internal validity by defining core concepts, establishing categories, and confirming that the constructs were accurately operationalized in the text (Luo et al., 2021). To achieve external validity, demonstrating the applicability of our textual insights beyond the research framework, we linked the words identified and categorized in Table 1 as text-based constructs to key performance measures, such as sales as recommended by Berger et al. (2020). This process effectively validated and operationalized the independent variables, which were then applied to the sustainable food products in the dataset previously exported from Huitun, enabling empirical analysis.

3.2. Phase 2: econometric modelling

After processing livestream videos and completing the text analysis to identify the relevant semantic cues for 416 sustainable food products in Phase 1, we augmented

Table 1. Summary of words related to sustainable consumption.

Main Topic	Sub-topics	Interpretation	Defining words
Self-oriented cues	Healthiness	Highlighting healthy and nutritious food quality	"organic", "pure", "authentic" "raw materials", "free-range"
	Chemical free	Emphasizing safe food ingredients	"no additives", "no preservatives", "no colorants", "no MSG"
	Natural ingredients	Demonstrating natural characteristics.	"natural", "clean"
Other-oriented cues	Sustainable production	Emphasizing local and traditional farming practices	"local", "local specialty", "homemade" "ancient method", "specialty product", "handmade", "purely handmade", "old-fashioned", "traditional craftsmanship"
	Agriculture practice	Support rural economies and cultural diversity	"green", "green food" "intangible cultural heritage", "cultural heritage"
		Accelerate the development of ecological environments and local specialty products	"farmhouse", "agricultural science institute", "farm", "countryside", "farmstead"
		Support viable livelihoods for farmers	"farmer", "agricultural product", "agricultural goods"
	Environmental impact	Respect environmental limits, reducing energy consumption	"ecological", "native"

the dataset with product prices, average monthly sales, number of sellers, and the number of livestream sessions promoting sustainable food products from Douyin. Our aim was to investigate the effect of using different semantic cues on the sales of sustainable food products in livestream shopping. Thus, our regression model included a dichotomous variable for semantic cues as an independent variable, distinguishing between other-oriented cues and self-oriented cues. The dependent variable was the monthly average sales of the relevant sustainable food product. The measures for all the variables included in the models are provided in Table 2. We specify the following regression model (Generalized Least Squares):

$$y_p = \alpha + \beta(\text{use of different semantic cues}_p) + \gamma(\text{number of livestream sessions}_p) \\ + \eta(\text{number of sellers}_p) + \theta(\text{use of different semantic cues}_p * \text{number of sellers}_p) \\ + \delta(\text{price}_p) + \nabla(\text{commision rate}) + \varepsilon_p$$

Where y_p is the dependent variable of interest – the average sales of sustainable food products P in 30 days. β captures the effect of using other-oriented semantic cues compared with self-oriented semantic cues in promoting sustainable food products. Semantic cues were created as a binary variable (1 if the product was promoted using other-oriented cues and 0 if using self-oriented cues). γ captures the effect of the number of livestream sessions in which the sustainable food product was sold. η captures the effect of the number of sellers that promoted sustainable food products. θ captures the moderation effect of the number of sellers on the association between using other-oriented and self-oriented cues and product sales. We also controlled for the effects of product price (captured using the parameter δ) and commission rate (captured using the parameter ∇).

Table 2. Variable measurements.

Variables	Measures
Other oriented semantic cues	1- Other-oriented semantic cues (e.g. local, homemade etc. . .) 0- Self- oriented semantic cues (e.g. no additives, no preservatives)
Product Price	The selling price of the product in the livestream sessions
Commission rate	Commission rate paid to the livestream seller
Livestream sessions	Number of livestream sessions that the products have been sold in
Number of sellers	Number of sellers that have promoted the products
Average 30-day livestream sales (\$)	Average 30 days sales volume in dollar
Average 30-day livestream sales (Unit)	Average 30 days total units sold

3.3. Analysis and findings

Table 3 shows the results of empirical analysis. Since we obtained both average monthly sales in monetary terms and unit sales, we performed the model separately for each for consistency robustness. We found using other-oriented semantic cues had a stronger effect ($\beta = 0.311$; $p < .0001$) than self-oriented semantic cues on sustainable food product sales. This was consistent when estimating the model in sales units ($\beta = 0.074$; $p < .0001$). This finding supports our argument that in certain contexts (i.e. livestream shopping), consumers are more likely to purchase sustainable food

Table 3. Empirical findings.

Predictors	Average 30-day livestream sales (\$)	Average 30-day livestream sales (Unit)
Other-oriented semantic cues	0.311***(6 e ⁻⁴)	0.074***(3 e ⁻³)
Product price	0.004***(0 e ⁻¹⁰)	0.015***(0 e ⁻¹⁰)
Commission rate	-1.053***(2 e ⁻³)	-0.583***(1 e ⁻²)
Number of livestream sessions	0.000***(0 e ⁻¹⁰)	0.000***(0 e ⁻¹⁰)
Number of sellers	-0.000***(0 e ⁻¹⁰)	-0.001***(0 e ⁻¹⁰)
Other-oriented semantic cues×Number of sellers	0.001***(0 e ⁻¹⁰)	0.000***(0 e ⁻¹⁰)

Significance level: *** $p \leq 0.0001$, ** $p \leq 0.001$, * $p \leq 0.01$ (all two-tailed). Standard errors are in parenthesis.

products when the products are promoted using other-oriented semantic cues compared to self-oriented semantic cues, likely driven by the community environment and subsequent conformity created through livestream shopping (Lazaric et al., 2020; Park & Feinberg, 2010; Zhang et al., 2023). This aligns with self-construal and social conformity theories, which suggest viewers in livestream shopping settings prioritize the sense of 'others' over 'self', shaping their consumption behaviors to align with other community members (Park & Feinberg, 2010). Furthermore, as a larger number of consumers can enhance the sense of community surrounding a product or idea (Marion, 2010), broadening the viewership in a livestream shopping setting helps build a community and strengthens conformity, thereby furthering other-oriented over self-oriented behaviors. Our findings challenge previous literature that suggests sustainable food consumption is primarily driven by self-oriented motives (e.g. Yadav, 2016). In contrast, our results indicate that, in the livestream shopping context, other-oriented motivations are activated via associated semantic cues, leading to behaviors aligned with conformity, which, in turn, influences sustainable consumption behavior. Therefore, this confirms previous research by D. Li et al. (2020) and Ruan et al. (2022) showing that conformity is a driving factor in green purchasing behavior.

Further, moderation effect findings reveal the impact of other-oriented semantic cues on sales is amplified when more sellers promote sustainable food products ($\beta = 0.001$; $p < .0001$). This aligns with previous literature, which suggests that when a larger number of livestream sellers promote sustainable products, exposure to these messages among a wider audience is likely to drive sales (Himmelboim & Golan, 2023). This is consistent with findings from other product categories in livestreaming, where a higher number of sellers outperforms relying on a few prominent ones (Gu et al., 2024). A greater number of livestream sellers accelerates product promotion, enhances brand familiarity among larger audiences, and increases the likelihood of conformity due to the increased exposure of viewers to the product (Lv et al., 2023).

Additionally, incorporating product price as a control variable, as shown in Table 3, we also found a significantly positive effect of price on livestream sales units ($\beta = 0.015$; $p < .0001$) and volume sales ($\beta = 0.004$; $p < .0001$) for sustainable food products. This aligns with previous literature highlighting consumers' willingness to pay a premium price for local and organic food (e.g. de Magistris & Gracia, 2016). Therefore, it is reasonable to observe the positive influence of product prices on sustainable food in livestream shopping, similar to other retail environments (Rödiger et al., 2016). We also checked the Variance Inflation Factor

(VIF) to assess multicollinearity among the predictor variables, confirming that multicollinearity was not a concern.

4. Discussion

Lagomarsino and Lemarié (2021, p. 228) highlight ‘what companies say and how they say it is not just a secondary detail but can have significant effects on consumers’ reactions’. In this study, we suggest semantic cues, in terms of specific words used to promote sustainable food products aids livestream sellers to improve purchasing outcomes. Critically, previous studies examining sustainable food consumption have proposed either or both other- and/or self-orientation as important drivers of behavior (T. Nguyen et al., 2019; Yadav, 2016), with self-oriented motives highlighted as having greater influence (Yadav, 2016). However, motives are contextual and alter according to the environment (Mishra et al., 2024). Here, we believe the livestream shopping environment differs to traditional brick and mortar and e-commerce shopping options by leveraging community (Zhang et al., 2023), and consequentially, inducing conformity (Park & Feinberg, 2010). For brands providing sustainable food options, understanding these contextual factors and communicating their product offerings appropriately is vital.

Our first finding, shown in Table 3, indicates that semantic cues addressing sustainable production, agricultural practices and environmental impact are more effective in stimulating purchase in livestream viewers than self-oriented semantic cues. Consequently, to enhance the effectiveness of their communications, food producers and livestream sellers should prioritize semantic cues that appeal to other-oriented motivations rather than self-oriented, to stimulate purchase behavior for sustainable food offerings. This aligns with previous research, which shows that in certain contexts such as livestream shopping, consumers are significantly influenced by the actions and opinions of others when purchasing sustainable food options (Lazaric et al., 2020; Soneji et al., 2015). This influence stems from the social dynamics within the livestream shopping community environment, which shapes consumer behavior (Park & Feinberg, 2010; Zhang et al., 2023).

Our second finding shows the relationship between other-oriented semantic cues and sales are improved when there are a greater number of sellers promoting sustainable food product options. According to the previous literature, this enhanced effect can be attributed to increased viewership associated with a higher number of sellers (Himelboim & Golan, 2023), which broadens the reach while intensifying community development, thus, making consumers more receptive to promotional messages and likely to engage with the product (Chen & Liao, 2022).

Finally, we have shown that price plays a crucial role in driving sales of sustainable food in livestream shopping. This supports prior research that consumers are willing to pay a premium for organic products (e.g. de Magistris & Gracia, 2016). Further, the positive relationship between price and sales of sustainable food aligns with broader retail trends (Rödiger et al., 2016), reinforcing the idea that perceived value continues to shape consumer demand for sustainable products across different shopping formats.

4.1. Theoretical implications

Our study makes three significant contributions to the marketing literature on sustainable food consumption (Greenland et al., 2023) and livestream shopping (Ki et al., 2024). Specifically, our research advances understanding concerning the role of social conformity theory (Asch, 1955) and self-construal theory (Singelis, 1994) by showing that viewer other-oriented motives are more influential than self-oriented motives when purchasing sustainable foods in livestream shopping. Our study also shows the effectiveness of message framing and semantic cues (Gardner et al., 1999) used to promote sustainable food consumption on livestream platforms. Finally, we extend existing work (e.g. Himelboim & Golan, 2023) by reinforcing the power of influence when more sellers promote a product. We discuss in detail below.

First, we examine sustainable food consumption in a livestream shopping environment, which as highlighted, has altered shopping behavior. That is, livestreaming offers a selling format that advocates and stimulates community (Zhang et al., 2023), thus creating an environment where conformity is more likely to occur. Self-construal theory provides a rationale for this as individuals will adapt to group norms when the collective is activated (White & Simpson, 2013), thus putting the 'other' above 'self'. However, existing literature examining sustainable food consumption has rarely considered consumer behavior in such shopping environments, despite its significant influence on consumption (White & Simpson, 2013). Consequentially, we build on literature examining sustainable food consumption by incorporating a shopping scenario where consumer behavior has substantially shifted. Addressing this gap in knowledge is particularly pertinent as increasingly, consumers in various regions (e.g. China and Europe) use livestream shopping to buy food (McKinsey, 2023b).

Second, this study showed nuanced linguistic influences on consumer behavior when it comes to sustainable food consumption by analyzing how semantic cues stimulate sales in a livestream shopping environment. More precisely, we highlight the importance of using specific words associated with other-orientation as a mechanism to generate improved sales compared to self-oriented words. This provides new insights into the sustainable food consumption literature, which has often found self-orientation to be a greater driver of sustainable food consumption (e.g. Yadav & Pathak, 2016).

Finally, we extend on the limited sustainable food consumption and livestream shopping marketing literature by examining the moderating effect of the number of sellers which signifies product supply and demand (Himelboim & Golan, 2023). Here, product popularity is reflected as more livestream sellers move to push sustainable food options to wider audiences. Our findings show as the number of sellers promoting sustainable food products via semantic cues that trigger the 'other' increases, so do sales of such products. Therefore, we build on the work by Himelboim and Golan (2023) and Gu et al. (2024) by demonstrating the more livestream sellers that promote a product, sales of such products improve as exposure to these messages among a greater viewership occurs.

4.2. Practical implications

Our study offers actionable insights for marketers, particularly in the domain of sustainable food promotions. At a strategic level, we highlight the critical role of contextual differences in the shopping environment, underscoring the need for marketers to tailor

their promotional tactics accordingly. A nuanced understanding of consumer reactions is essential to optimizing marketing strategies for sustainable product offerings, and our findings provide clear guidance on how to achieve this.

First, we emphasize the importance of leveraging specific semantic cues that resonate with consumers in a livestream shopping context. Hence, we advocate food brands and livestream sellers use words associated with other-orientations (e.g. local, green food, farmhouse) when communicating to audiences about sustainable food products. By using incorrect semantic cues, such as self-oriented ones (e.g. health, quality, and safety of the food), livestream sellers may minimize their sales potential for sustainable food on livestream shopping platforms.

Second, we advocate that in livestream shopping, sellers continue to foster a sense of community when selling sustainable food products to ensure a greater likelihood of mimetic behavior among audiences (Lazaric et al., 2020). Research (e.g. Ma, 2021) has shown that while livestream sellers leverage tactics to induce community, occasionally, they oscillate between this and competition among audiences. Competition-driven strategies risk disrupting social conformity by shifting focus from collective values to individual gains, which may undermine the appeal of sustainability. For food producers and livestream sellers, cultivating community-driven narratives and associated activities is a more sustainable and impactful approach.

Third, our findings show when it comes to sustainable food options, consumers are less price sensitive. Consequently, sustainable food producers and livestream sellers should continue offering products at a premium price given consumers' willingness to pay. However, it should be noted livestream shopping is usually associated with cheaper product offerings (Ki et al., 2024) and as such, livestream platforms/sellers should call on different marketing communication tools (e.g. digital advertising) to generate greater awareness that they provide premium sustainable food options.

Finally, we suggest marketers leverage the power of a larger pool of smaller livestream sellers to promote their sustainable food products. Our findings demonstrate the moderating effect of increased seller participation, where a broader pool of sellers strengthens consumer conformity through collective exposure. This strategy ensures that sustainable food promotions reach diverse audiences, maximizing their impact and effectiveness.

By adopting these strategic recommendations, marketers can better align their messaging and promotional efforts with consumer communication preferences, ultimately driving stronger engagement and sales for sustainable food products in livestream shopping environments.

5. Limitations and future research

This study is bound by various limitations that provide avenues for future research. First, to analyze other- versus self-orientations, we used product descriptions. While product descriptions are critical in shaping consumer knowledge (Hsee et al., 2009), in livestream shopping, product descriptions are usually accompanied by product demonstrations and various verbal cues. To better understand linguistical effectiveness, verbal cues could be analyzed to see whether other-orientation is also more effective than self-orientation when promoting sustainable food products. Second, this research is guided by social conformity and self-construal theories. While these provide a reasonable rationale for our hypotheses,

actually measuring the extent of conformity in a livestream shopping scenario in shaping consumer behavior regarding sustainable food consumption would provide much needed insight. Further, we have not measured community development directly. However, since community is a unique characteristic of livestream shopping, this suggests a potential area for future research. Specifically, examining how community helps sellers strengthen their use of semantic cues could provide valuable insights. Finally, our research is conducted from a Chinese livestream shopping platform which may impact the generalizability of our study. Future research can replicate this study across Europe and US where livestream shopping is growing (McKinsey, 2023b).

Data availability statement

The data that support the findings of this study are available from the corresponding author, C.S.Y., upon reasonable request.

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

- Ammann, J., Arbenz, A., Mack, G., Nemecek, T., & El Benni, N. (2023). A review on policy instruments for sustainable food consumption. *Sustainable Production and Consumption*, 36, 338–353. <https://doi.org/10.1016/j.spc.2023.01.012>
- Asch, S. (1955). Opinions and social pressure. *Scientific American*, 193(5), 31–35. <https://doi.org/10.1038/scientificamerican1155-31>
- Berger, J., Humphreys, A., Ludwig, S., Moe, W., Netzer, O., & Schweidel, D. (2020). Uniting the tribes: Using text for marketing insight. *Journal of Marketing*, 84(1), 1–25. <https://doi.org/10.1177/0022242919873106>
- Berger, J., & Milkman, K. (2012). What makes online content viral? *Journal of Marketing Research*, 49(2), 192–205. <https://doi.org/10.1509/jmr.10.0353>
- Chen, J., & Liao, J. (2022). Antecedents of viewers' live streaming watching: A perspective of social presence theory. *Frontiers in Psychology*, 13, 839629. <https://doi.org/10.3389/fpsyg.2022.839629>
- China Green Food Development Centre. (2022). *The development plan for the green food industry*. <https://sfccc.caas.cn/xyyw/a7a10d97455e4d8eb35cb0e4795603f3.htm>
- CNBC. (2023). Livestream shopping booms as small businesses strike gold on social media. *CNBC*. <https://www.cnbc.com/2023/06/09/livestream-shopping-booms-as-small-businesses-hit-social-media-.html>
- de Magistris, T., & Gracia, A. (2016). Consumers' willingness-to-pay for sustainable food products: The case of organically and locally grown almonds in Spain. *Journal of Cleaner Production*, 118, 97–104. <https://doi.org/10.1016/j.jclepro.2016.01.050>
- Ford, H., Gould, J., Danner, L., Bastian, S., & Yang, Q. (2023). "I guess it's quite trendy": A qualitative insight into young meat-eaters' sustainable food consumption habits and perceptions towards current and future protein alternatives. *Appetite*, 190, 107025. <https://doi.org/10.1016/j.appet.2023.107025>
- Gardner, W., Gabriel, S., & Lee, Y. (1999). "I" value freedom, but "we" value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10(4), 321–326. <https://doi.org/10.1111/1467-9280.00162>
- Genova, C., & Allegratti, V. (2024). Sustainable food consumption: Social representations of definitions, drivers, and obstacles. *Sustainability*, 16(4), 1415. <https://doi.org/10.3390/su16041415>

- Gobel, M., & Miyamoto, Y. (2024). Self- and other-orientation in high rank: A cultural psychological approach to social hierarchy. *Personality and Social Psychology Review*, 28(1), 54–80. <https://doi.org/10.1177/10888683231172252>
- Gohary, A., Madani, F., Chan, E., & Tavallaee, S. (2023). Political ideology and fair-trade consumption: A social dominance orientation perspective. *Journal of Business Research*, 156, 113535. <https://doi.org/10.1016/j.jbusres.2022.113535>
- Gohary, A., Madani, F., Lie, D., & Chan, E. (2025). Does rejecting inequality enhance green consumption? The effect of power distance belief on organic food consumption. *Appetite*, 206, 107764. <https://doi.org/10.1016/j.appet.2024.107764>
- Grand View Research. (2023). *Live commerce platforms market size, share & trends analysis report by category*. <https://www.grandviewresearch.com/industry-analysis/live-commerce-platforms-market-report>
- Greenland, S., Nguyen, N., & Strong, C. (2023). Irresponsible marketing and the need to support pro-sustainable production and consumption. *Journal of Strategic Marketing*, 1–5. <https://doi.org/10.1080/0965254X.2023.2230487>
- Gu, X., Zhang, X., & Kannan, P. (2024). Influencer mix strategies in livestream commerce: Impact on product sales. *Journal of Marketing*, 88(4), 64–83. <https://doi.org/10.1177/00222429231213581>
- Himelboim, I., & Golan, G. (2023). A social network approach to social media influencers on instagram: The strength of being a nano-influencer in cause communities. *Journal of Interactive Advertising*, 23(1), 1–13. <https://doi.org/10.1080/15252019.2022.2139653>
- Hsee, C., Yang, Y., Gu, Y., & Chen, J. (2009). Specification seeking: How product specifications influence consumer preference. *Journal of Consumer Research*, 35(6), 952–966. <https://doi.org/10.1086/593947>
- Ki, C., Chenn, A., Chong, S., & Cho, E. (2024). Is livestream shopping conceptually new? a comparative literature review of livestream shopping and TV home shopping research. *Journal of Business Research*, 174, 114504. <https://doi.org/10.1016/j.jbusres.2024.114504>
- Kim, J., Rundle-Thiele, S., Knox, K., & Dietrich, T. (2023). Laying the foundations for success: Co-creating sustainable marketing solutions. *Journal of Strategic Marketing*, 31(1), 267–295. <https://doi.org/10.1080/0965254X.2021.1900341>
- Lacroix, K., & Gifford, R. (2019). Reducing meat consumption: Identifying group-specific inhibitors using latent profile analysis. *Appetite*, 138, 233–241. <https://doi.org/10.1016/j.appet.2019.04.002>
- Lagomarsino, M., & Lemarié, L. (2021). Should companies hope instead? The role of verbal cues in consumers' evaluation of cause-related marketing (CRM). *Psychology and Marketing*, 39(1), 227–238. <https://doi.org/10.1002/mar.21591>
- Lazaric, N., Le Guel, F., Belin, J., Oltra, V., Lavaud, S., & Douai, A. (2020). Determinants of sustainable consumption in France: The importance of social influence and environmental values. *Journal of Evolutionary Economics*, 30(5), 1337–1366. <https://doi.org/10.1007/s00191-019-00654-7>
- Lee, D., & Wan, C. (2023). The impact of mukbang live streaming commerce on consumers' over-consumption behavior. *Journal of Interactive Marketing*, 58(2–3), 198–221. <https://doi.org/10.1177/10949968231156104>
- Li, D., Du, J., Sun, M., & Han, D. (2020). How conformity psychology and benefits affect individuals' green behaviours from the perspective of a complex network. *Journal of Cleaner Production*, 248, 119215. <https://doi.org/10.1016/j.jclepro.2019.119215>
- Li, S., & Kallas, Z. (2021). Meta-analysis of consumers' willingness to pay for sustainable food products. *Appetite*, 163, 105239. <https://doi.org/10.1016/j.appet.2021.105239>
- Luo, H., Cheng, S., Zhou, W., Yu, S., & Lin, X. (2021). A study on the impact of linguistic persuasive styles on the sales volume of live streaming products in social e-commerce environment. *Mathematics*, 9(13), 1576. <https://doi.org/10.3390/math9131576>
- Lv, J., Yang, R., Yu, J., Yao, W., & Wang, Y. (2023). Macro-influencers or meso-influencers, how do companies choose? *Industrial Management & Data Systems*, 123(12), 3018–3037. <https://doi.org/10.1108/IMDS-05-2022-0310>
- Ma, Y. (2021). To shop or not: Understanding Chinese consumers' live-stream shopping intentions from the perspectives of uses and gratifications, perceived network size, perceptions of digital

- celebrities, and shopping orientations. *Telematics and Informatics*, 59, 101562. <https://doi.org/10.1016/j.tele.2021.101562>
- Marion, G. (2010). Conformity around dominant marketing cognitive products: Networks, mediators and storytelling. *Marketing Theory*, 10(2), 192–209. <https://doi.org/10.1177/1470593110366904>
- McKinsey. (2021). *It's showtime! how live commerce is transforming the shopping experience*. <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/its-showtime-how-live-commerce-is-transforming-the-shopping-experience>
- McKinsey. (2023a). *Consumers care about sustainability-and back it up with their wallets*. <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/consumers-care-about-sustainability-and-back-it-up-with-their-wallets#/>
- McKinsey. (2023b). *Ready for prime time? The state of live commerce*. <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/ready-for-prime-time-the-state-of-live-commerce>
- Meglino, B., & Korsgaard, M. (2006). Considering situational and dispositional approaches to rational self-interest: An extension and response to De Dreu (2006). *Journal of Applied Psychology*, 91(6), 1253–1259. <https://doi.org/10.1037/0021-9010.91.6.1253>
- Meng, L. (., Duan, S., Zhao, Y., Lü, K., & Chen, S. (2021). The impact of online celebrity in livestreaming E-commerce on purchase intention from the perspective of emotional contagion. *Journal of Retailing & Consumer Services*, 63, 102733. <https://doi.org/10.1016/j.jretconser.2021.102733>
- Mishra, S., Malhotra, G., Chatterjee, R., & Sanatkumar Shukla, Y. (2024). Impact of self-expressiveness and environmental commitment on sustainable consumption behavior: The moderating role of fashion consciousness. *Journal of Strategic Marketing*, 32(8), 1048–1070. <https://doi.org/10.1080/0965254X.2021.1892162>
- Nascimento, J., & Loureiro, S. M. C. (2024). Mapping the sustainability branding field: Emerging trends and future directions. *Journal of Product & Brand Management*, 33(2), 234–257. <https://doi.org/10.1108/JPBM-02-2023-4349>
- Nguyen, N., Leenders, M., Pervan, S., & Strong, C. (2024). Marketing for sustainable food consumption [special issue]. *Journal of strategic marketing*.
- Nguyen, T., Phan, T., Nguyen, H., Dang, T., & Nguyen, N. (2019). Antecedents of purchase intention toward organic food in an Asian emerging market: A study of urban Vietnamese consumers. *Sustainability*, 11(17), 4773. <https://doi.org/10.3390/su11174773>
- Ni, S., & Ueichi, H. (2024). Factors influencing behavioral intentions in livestream shopping: A cross-cultural study. *Journal of Retailing & Consumer Services*, 76, 103596. <https://doi.org/10.1016/j.jretconser.2023.103596>
- Park, J., & Feinberg, R. (2010). E-formity: Consumer conformity behaviour in virtual communities. *Journal of Research in Interactive Marketing*, 4(3), 197–213. <https://doi.org/10.1108/17505931011070578>
- Reisch, L., Eberle, U., & Lorek, S. (2013). Sustainable food consumption: An overview of contemporary issues and policies. *Sustainability: Science, Practice & Policy*, 9(2), 7–25. <https://doi.org/10.1080/15487733.2013.11908111>
- Rizzo, G., Borrello, M., Dara Guccione, G., Schifani, G., & Cembalo, L. (2020). Organic food consumption: The relevance of the health attribute. *Sustainability*, 12(2), 595. <https://doi.org/10.3390/su12020595>
- Rödiger, M., Plaßmann, S., & Hamm, U. (2016). Organic consumers' price knowledge, willingness-to-pay and purchase decision. *British Food Journal*, 118(11), 2732–2743. <https://doi.org/10.1108/BFJ-04-2016-0164>
- Ruan, W., Wong, I., & Lan, J. (2022). Uniting ecological belief and social conformity in green events. *Journal of Hospitality & Tourism Management*, 53, 61–69. <https://doi.org/10.1016/j.jhtm.2022.09.001>
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality & Social Psychology Bulletin*, 20(5), 580–591. <https://doi.org/10.1177/0146167294205014>
- Smith, S., & Paladino, A. (2010). Eating clean and green? Investigating consumer motivations towards the purchase of organic food. *Australasian Marketing Journal*, 18(2), 93–104. <https://doi.org/10.1016/j.ausmj.2010.01.001>

- Soneji, D., Riedel, A., & Martin, B. (2015). How Gordon Ramsay appeals to consumers: Effects of self-concept clarity and celebrity meaning on celebrity endorsements. *Journal of Strategic Marketing*, 23(5), 457–468. <https://doi.org/10.1080/0965254X.2014.991349>
- Su, L., Sengupta, J., Li, Y., Chen, F., Campbell, M. C., Cotte, J., & Hoegg, J. (2024). “Want” versus “need”: How linguistic framing influences responses to crowdfunding appeals. *Journal of Consumer Research*, 50(5), 923–944. <https://doi.org/10.1093/jcr/ucad033>
- Tian, X., & Li, Q. (2023). Seeking certainty in an asymmetric relationship: Livestream shopping in China. *Qualitative Sociology*, 46(4), 555–579. <https://doi.org/10.1007/s11133-023-09549-3>
- UK Sustainable Development Commission. (2005). *Report for the sustainable development commission*. <http://www.sd-commission.org.uk/data/files/publications/0501>
- United Nations. (2024). *Fast facts - what are sustainable food systems?*. <https://www.un.org/sustainabledevelopment/fast-facts-what-are-sustainable-food-systems/>
- Vargas, A., de Moura, A., Deliza, R., & Cunha, L. (2021). The role of local seasonal foods in enhancing sustainable food consumption: A systematic literature review. *Foods*, 10(9), 2206. <https://doi.org/10.3390/foods10092206>
- Voinea, L., Popescu, D., Bucur, M., Negrea, T., Dina, R., & Enache, C. (2020). Reshaping the traditional pattern of food consumption in Romania through the integration of sustainable diet principles. A qualitative study. *Sustainability*, 12(14), 5826. <https://doi.org/10.3390/su12145826>
- Wang, M., & Fan, X. (2021). An empirical study on how livestreaming can contribute to the sustainability of green agri-food entrepreneurial firms. *Sustainability*, 13(22), 12627. <https://doi.org/10.3390/su132212627>
- Wang, S., & Wang, J. (2023). The live-streaming e-commerce mode selection under competition: Self-run or third-party? *Electronic Commerce Research*, 1–22. <https://doi.org/10.1007/s10660-023-09789-z>
- Welch, D., Swaffield, J., & Evans, D. (2021). Who’s responsible for food waste? Consumers, retailers and the food waste discourse coalition in the United Kingdom. *Journal of Consumer Culture*, 21(2), 236–256. <https://doi.org/10.1177/1469540518773801>
- White, K., & Simpson, B. (2013). When do (and Don’t) normative appeals influence sustainable consumer behaviors? *Journal of Marketing*, 77(2), 78–95. <https://doi.org/10.1509/jm.11.0278>
- World Economic Forum. (2023). *Consumers want sustainable options. What food producers, suppliers, and retailers can do Now*. <https://www.weforum.org/agenda/2023/01/consumer-power-net-zero-food-producer-retailer-davos23/>
- Wu, J., & Yang, J. (2021). *The “meat and poison” of livestream shopping*. http://pdf.dfcfw.com/pdf/H3_AP202112101533754126_1.pdf?1639156337000.pdf
- Xu, Y., Zeng, K., Guo, J., Li, X., Dong, L., & Jiang, W. (2023). Whether live streaming has a better performance? An examination of product presentation modes on cross-border e-commerce platform. *International Journal of Human–Computer Interaction*, 41(1), 1–16. <https://doi.org/10.1080/10447318.2023.2295686>
- Yadav, R. (2016). Altruistic or egoistic: Which value promotes organic food consumption among young consumers? A study in the context of a developing nation. *Journal of Retailing & Consumer Services*, 33, 92–97. <https://doi.org/10.1016/j.jretconser.2016.08.008>
- Yadav, R., & Pathak, G. (2016). Young consumers’ intention towards buying green products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, 135, 732–739. <https://doi.org/10.1016/j.jclepro.2016.06.120>
- Zhai, M., & Chen, Y. (2023). How do relational bonds affect user engagement in e-commerce livestreaming? The mediating role of trust. *Journal of Retailing & Consumer Services*, 71, 103239. <https://doi.org/10.1016/j.jretconser.2022.103239>
- Zhang, J., Xu, Y., Dong, L., & Long, Q. (2023). Gratification matters? An explorative study of antecedents and consequence in livestream shopping. *Industrial Management & Data Systems*, 123(6), 1649–1669. <https://doi.org/10.1108/IMDS-08-2022-0513>
- Zheng, R., Li, Z., & Na, S. (2022). How customer engagement in the live-streaming affects purchase intention and customer acquisition, E-tailer’s perspective. *Journal of Retailing & Consumer Services*, 68, 103015. <https://doi.org/10.1016/j.jretconser.2022.103015>