

Who advocates #sustainablefashion? Role of the message sender and message type on sustainable fashion communication on Twitter

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Introduction The impact of social media on the fashion industry is undeniable as it becomes the new way to promote and exchange information (Ahmad, Salman, & Ashiq, 2015). Consumers are naturally exposed to new ideas, campaigns, and new products on social media, so the diffusion of information has been accelerated (Kong, Witmaier, & Ko, 2021). Sustainability has emerged as one of the critical agendas because there is increasing awareness and demand from consumers for sustainable products and practices (Gazzola et al., 2020). Indeed, the fashion industry has been accused as the main offender of environmental, social, and economical sustainability issues, so conversations regarding sustainable fashion have become a trending topic on social media. However, a recent study indicates that the heterogeneous characteristics of communicators and the content about sustainable fashion create more confusion among message receivers (i.e., consumers) (Orminski et al., 2021). Besides, there is a dearth of research regarding the intersection of sustainability, fashion, and social media (Jacobson & Harrison, 2021). Thus, this study aims to explore who is leading the conversation in relation to fashion sustainability and what messages are exchanged on one of the influential social media, Twitter. So far, prior literature has documented inconsistent and mixed findings on the effectiveness of social media communication regarding sustainability, we investigate how (a) the role of the message sender and (b) types of messages influence consumers' responses.

Literature Review In general, sustainability refers to the maintenance of the environment and natural resources (Orminski et al., 2021), but its boundary has expanded when it comes to the fashion industry. Sustainable fashion encompasses environmentally friendly production and consumption, socially responsible sourcing and supply chain, and fair working conditions (Jacobson & Harrison, 2021). Given increasing attention to sustainable fashion, consumers and companies constantly communicate regarding sustainable issues via social media (Lee & Weder, 2021). Among various social media platforms, Twitter earns the status of one of the most popular platforms as an effective public relations, advertising, and marketing campaigns tool (Huang et al., 2019). The prevalent use of hashtags (#) expedites the diffusion of information by enabling users to search, organize, retrieve, and group related messages (Chew & Eysenbach, 2010). These unique attributes enable ordinary citizens to become opinion leaders on Twitter (Xu et al., 2014). Originally introduced by Lazarsfeld et al. (1968), opinion leadership theory explains information flows and how interpersonal communication can be influential through opinion leaders. In particular, the role of opinion leaders in

fashion communication within social media is significant as this social media is known to reach a wide and diverse audience and propagate its followers to share (i.e., retweeting) the content continuously (Barbosa et al., 2012). According to Orminski et al. (2021), opinion leaders tend to influence people's sustainable fashion behaviors.

Research Methods We collected more than 76,163 English written tweets which included the #sustainablefashion hashtag to capture original tweets and retweets between February 1, 2021, to January 31, 2022, using R. After eliminating retweets, quotes, replies, and duplicated tweets, a usable sample of 40,732 were retained. Further, the data was narrowed down based on the following criteria: (1) the account with more than 1000 followers to see "reach" and (2) more than one tweet per month regarding sustainable fashion to ensure the focus of the account. To answer the research questions, the accounts that met the above criteria ($n = 155$) and the messages shared by these accounts were further analyzed ($n = 7,366$). The account profiles were analyzed by two researchers, and the inter-corder reliability was above the criteria (Krippendorff's Alpha: .96, Riffe et al., 2019). Analyses of the 155 accounts demonstrate five major groups: business ($n = 108$), individuals ($n = 29$), media organization ($n = 11$), nonprofit ($n = 15$), and government ($n = 1$). A majority of tweets were created by business ($n = 5883$), followed by individuals ($n = 1109$), nonprofit ($n = 511$), media ($n = 267$), and government ($n=13$). A further investigation on business type shows as follows: apparel ($n = 56$), accessory ($n = 57$), auxiliary service ($n = 29$), raw material ($n = 6$), and non-fashion business ($n = 10$). The analyses of individual accounts revealed that businessmen shared more messages regarding sustainable fashion (e.g., CEO, CFO, $n = 13$), followed by an activist ($n = 7$), unspecified ($n = 5$), social media influencer ($n = 4$), and celebrity ($n = 3$). For the message types, the researchers categorized 7,366 tweets into groups based on the most frequently used words which appeared at least 50 times on tweets as such: environmental words (e.g., eco-friendly, environmental, green, organic, recycled; $n = 61$), ethical/social words (e.g., ethical, ethically-made, fairtrade; $n = 13$), business words (e.g., sales, trading, shop; $n = 40$), general sustainability (e.g., sustainable, sustainable living; $n = 19$), and general fashion (e.g., style, menswear, vintage; $n = 142$). In the analyses, some words were counted into multiple themes (e.g., Sustainablefashion → general sustainability as well as general fashion).

Results A series of chi-square tests examined significant differences depending on the message sender and types of message. The results revealed that business accounts (e.g., apparel) shared more sustainability-related messages in environmental ($X_{environment}^2 = 191.01, p < .001$) and ethical/social-related tweets ($X_{ethical/social}^2 = 8.85, p < .001$) than economy/business-related tweets ($X_{business}^2 = 27.65, p < .001$) than others. Non-profit organizations (e.g., Goodwill) published more business/economy-related messages ($X_{business}^2 = 49.07, p < .001$) and ethical/social messages ($X_{ethical/social}^2 = 45.04, p < .001$) than other organizations. Interestingly, government did not share much sustainability-related messages compared to non-government organizations ($X_{environment}^2 = 2.29, p = n.s.; X_{ethical/social}^2 = 2.67, p$

=n.s.; $X_{business}^2 = .003, p = n.s.$). Individuals tend to disseminate more business related messages than environmental and ethical/social messages; however, non-individual accounts tended to share more environmental ($X_{environment}^2 = 130.31, p < .001$) and ethical/social messages ($X_{ethical/social}^2 = 93.93, p < .001$). Further, we analyzed what types of companies communicated sustainability-related messages, and the results showed that apparel companies share more environment-related messages ($X^2 = 139.50, p < .001$), accessory and auxiliary companies share more ethical/social messages ($X_{accessory}^2 = 13.99, p < .001$; $X_{auxiliary}^2 = 197.28, p < .001$). Interestingly, non-fashion businesses more frequently sent environmental ($X^2 = 15.58, p < .001$), ethical/social ($X^2 = 9.928, p < .01$), and business ($X^2 = 22.40, p < .001$) messages than fashion businesses. As expected, social activists tended to share more environment-related messages ($X^2 = 18.25, p < .001$) than other individuals. Social media influencers did not significantly share any sustainability-related messages than others except non-social media influencers shared more ethical/social messages ($X^2 = 10.15, p < .001$) than others.

Discussion and Implication Findings of our study elaborate that businesses, including media and fashion, frequently share more environmental sustainability messages than others. On the other hand, non-profit organizations share more ethical/social and business-related sustainable messages than businesses. Apparel companies tend to pay more attention to the environment and ethical/social messages than business-related tweets. Thus, we conclude that communication regarding sustainability still serves as a marketing tool rather than educating and promoting sustainable business practices. Theoretically, our findings contribute to the literature on how opinion leaders in social media disseminate and educate #sustainable fashion to consumers.

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