

## Revisiting the social media as a tool for behavioral change for sustainable consumption

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The climate crisis is increasingly impacting global quality of life, especially among young adults who feel anxious about the future (Bernardes et al., 2019). This study examines the role of social media in promoting sustainable consumption behaviors among consumers in their 20s and 30s. Social media serves as a critical platform for disseminating information and encouraging environmentally friendly behaviors (Zafar et al., 2021). Despite high environmental awareness, young consumers often struggle to translate attitudes into actions (Park & Lin, 2020). This study hypothesizes that exposure to sustainable content on social media can enhance both attitudes and behaviors towards sustainable consumption.

**H1. Experiencing sustainable consumption content on social media will positively increase sustainable consumption (SC) attitudes and behaviors.**

**H2. SC attitudes will mediate the relationship between experiencing sustainable consumption content and SC behaviors.**

**H3. The effect of sustainable consumption content will vary across different social media platforms.**

This study conducted an on-line survey of 400 Korean adults with the MACROMILL EMBRAIN (204 females, 188 20s,  $M_{age} = 30.0$ ,  $SD_{age} = 5.11$ ). First, participants were asked which of the presented social media platforms they currently used, and if they did not use any of the platforms, the survey was stopped. The presented platforms were Instagram, Facebook, X, TikTok, Daum café, and Everytime, which were chosen because they are actively used by people in their 20s and 30s in Korea. The Korean social media Daum café is an older text-based platform and is used mostly by people in their late 20s and 30s, while Everytime is a newer social media focused on college students. Second, respondents were asked about their experiences with sustainable consumption content on the platforms ("I have encountered information about sustainability, sustainable development, and sustainable consumption on social media."). Third, SC attitudes were measured using a 14-item scale based on previous studies that asks about the seriousness of environmental issues, confidence in sustainable consumption, and difficulties in sustainable consumption ( $\alpha = .73$ ). SC behaviors were measured using a 23-item scale asking about consumption behaviors for the environment, quality of life, and future generations ( $\alpha = .94$ ). Experiencing sustainable consumption on social media, SC attitudes and SC behaviors were all measured on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Finally, participants answered questions about their gender, age, marital status, years of education, and monthly expenses.

We aimed to evaluate the impact of experiencing sustainable consumption on SC attitudes and SC behaviors, and whether SC attitudes mediate the relationship between experiencing sustainable consumption and SC behaviors. To determine whether SC attitudes mediate the effect of experiencing sustainable consumption on SC behaviors, we applied a bootstrapping procedure (Model 4; Hayes, 2022), specifying a 95% confidence interval with 5,000 samples. The mediation analysis was conducted with experiencing sustainable consumption as the independent variable, SC behaviors as the dependent variable, and SC attitudes as the mediator. In addition, gender, age, marital status, years of education, and monthly expenses were entered as covariates based on previous studies to increase the consistency between attitudes and behaviors. The analysis shows that experiencing sustainable consumption has a positive effect on SC attitudes ( $B = .11$ ,  $p < .001$ ) and

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SC behaviors ( $B=.23, p<.001$ ), i.e., consumers who view more sustainable consumption-related content on social media have stronger SC attitudes and SC behaviors. Next, bootstrapping results show that the relationship between experiencing sustainable consumption and SC behaviors is mediated by SC attitudes, as the 95% confidence interval between LLCI and ULCI does not include zero ( $B=.06, 95\% \text{ CI } [.04, .09]$ ). Taken together, the results suggest that experiencing sustainable consumption directly affects SC behaviors and indirectly affects SC behaviors via SC attitudes (H1 and H2 are accepted).

The effects of experiencing sustainable consumption on SC attitudes and SC behaviors were significant on Instagram (attitude:  $B=.12, p<.001$ ; behavior:  $B=.25, p<.001$ ), Facebook (attitude:  $B=.12, p<.001$ ; behavior:  $B=.24, p<.001$ ), X (attitude:  $B=.13, p<.01$ ; behavior:  $B=.39, p<.001$ ), and Daum café (attitude:  $B=.21, p<.001$ ; behavior:  $B=.28, p<.001$ ), experiencing sustainable consumption had a positive effect on both SC attitudes and SC behaviors. On the other hand, experiencing sustainable consumption on TikTok had a significant positive effect on SC behaviors ( $B=.29, p<.01$ ), but not on SC attitudes ( $B=.06, p=.46$ ). Furthermore, experiencing sustainable consumption on “Everytime” had a positive effect on SC attitudes ( $B=.13, p<.05$ ), but only the total effect ( $B=.18, p<.01$ ) and not the direct effect ( $B=.13, p=.06$ ) was significant for SC behaviors.

The mediation analysis also showed that the effect of experiencing sustainable consumption on SC behaviors, mediated by SC attitudes, varied across platforms. Experiencing sustainable consumption on Instagram ( $B=.07, 95\% \text{ CI } [.04, .10]$ ), Facebook ( $B=.07, 95\% \text{ CI } [.03, .12]$ ), X ( $B=.05, 95\% \text{ CI } [.02, .09]$ ), and Daum café ( $B=.12, 95\% \text{ CI } [.05, .20]$ ) significantly influenced SC behaviors via SC attitudes. However, no significant mediation effect was found for TikTok ( $B=.03, 95\% \text{ CI } [-.05, .12]$ ) and “Everytime” ( $B=.05, 95\% \text{ CI } [-.01, .12]$ ) (H3 is accepted).

Furthermore, we found that experiencing sustainable consumption on X ( $B=.34, 95\% \text{ CI } [.26, .42]$ ) and TikTok ( $B=.27, 95\% \text{ CI } [.10, .43]$ ) had a significant direct effect on SC behaviors. Specifically, TikTok had a significant direct effect on SC behaviors, with no mediating effect of SC attitudes. This means that X and TikTok are social media that induce changes in SC behaviors rather than social media that change consumers' attitudes. TPB states that attitude and behavior are consistent, but cognitive dissonance theory and self-perception theory suggest that behavior can change and determine attitude. There are also studies that have proposed an alternative conceptualization that behavior can shape and influence attitudes (Kroesen et al., 2017). In other words, attitudes can influence behavior in the opposite direction, and it is possible to develop attitudes through behavior. Therefore, if sustainable consumption experiences on X and TikTok have a direct positive effect on SC behaviors without mediation through SC attitudes, it may be appropriate to provide content experiences that focus on promoting SC behaviors.

This study makes several theoretical contributions. First, we found that exposure to sustainable consumption-related content on social media can positively influence sustainable consumption attitudes and behaviors. This confirms the influence of social media as a medium to promote consumers' sustainable consumption attitudes and behaviors. It also confirms that passive actions such as simply observing or being exposed to social media content, rather than active actions such as posting or commenting on sustainable consumption content on social media, can increase sustainable consumption attitudes and behaviors.

Second, previous studies have shown different results on the attitude-behavior consistency of eco-friendly and sustainable consumption, and when we controlled for socio-demographic factors that affect the inconsistency of attitudes and behaviors as covariates, we found that the attitude-behavior consistency was confirmed. However, the mediating effect of attitude was not found in the case of TikTok and “Everytime”, which are representative short-form media. For future studies, it is necessary to collect and analyze a larger sample of users of these two new media.

This study also makes several contributions to policy and practice. First, in the field of consumer education, it provides developers and disseminators of consumer education content with an effective approach to educating young people about sustainable consumption. As we have seen, social media are conducive to sustainable consumption, so it is necessary to actively produce sustainable consumption-related content within social media. In doing so, content developers should recognize that each platform has very different characteristics, so they should first understand the characteristics of each platform and consider an individualized approach.

Next, governments and organizations should help create a social media space for consumers to learn about sustainable consumption. This study proves that social media is effective in educating people about sustainable consumption and confirms its potential for education. However, if there is no way to experience sustainable consumption content on social media, these findings are useless. Therefore, it is necessary for governments and organizations to help actively support the development and dissemination of sustainable consumption content. In addition, it is predicted that active writing and sharing on social media will promote sustainable consumption attitudes and behaviors beyond the experience. Therefore, it is important to create a space on social media where consumers can actively share and post their sustainable consumption experiences.

The results of this study suggest several interesting directions for future research. First, we found that experiencing sustainable consumption content on social media positively enhances sustainable consumption attitudes and behaviors, but do we see the same results when viewing content that is negative about sustainable consumption? And do we see the same effects when the content is created by an organization versus an individual consumer? Specifically, does it matter if the content is an advertisement for an organization or company, an individual sharing their experience, or a challenge? According to the Persuasion Knowledge Model (PKM; Friestad & Wright, 1994), consumers are more likely to be persuaded by natural experiences and exposure to information, and the persuasiveness of the message depends on the source of the information. Therefore, it is predicted that the impact on consumers will vary depending on the source of information and the type of content.

Next, you can categorize consumers by type of social media use to perform more specific analysis. Specifically, by examining the time and frequency of social media use, we can divide consumers into heavy and light users and make comparisons between groups. Since previous studies have confirmed that the time and frequency of social media use have different effects on consumers, such as cultivation and false consensus effects (Nevzat, 2018), it is expected to have a significant impact on attitudes and behaviors toward sustainable consumption.

Finally, this study used a set of survey data to examine the effects, but the question remains whether these results would hold up in an experiment, so further research is needed. Through web crawling and application programming interfaces that collect data online, we can conduct empirical research based on actual historical data from social media. Specifically, we can collect data on social media postings, likes, and shares, and analyze how these behaviors relate to and influence sustainable consumption attitudes and behaviors. These questions will contribute to the research on social media and sustainable consumption by analyzing the role of social media in promoting sustainable consumption attitudes and behaviors among consumers.

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