

Science for Environment Policy

Can supermarkets encourage customers to cut food waste through social media? Analysis of UK campaign shows mixed results

A study has evaluated three types of media campaign conducted by a large UK supermarket to encourage shoppers to reduce their food waste.

These used social media, an e-newsletter and a print/digital magazine, respectively. Although they all appeared to lead to reductions in food waste to some extent, similar behavioural changes were also seen for customers who had not participated in any of the campaigns.

Vast quantities of food are wasted on a global scale each year. Throwing away food also wastes the resources used to produce it and pushes up food prices. In addition, this loss harms the environment — deforestation, for example, has been partly linked with creating agricultural land for growing food that is subsequently wasted. Furthermore, food that is disposed of in landfill emits methane and carbon dioxide. Reducing food waste is, therefore, a crucial part of moving towards a sustainable society. The EU, for example, is committed to reducing food waste as part of its drive towards a [circular economy](#)¹.

Behaviour change research has found that face-to-face influence, where people learn from one another — for instance, showing your neighbours how to compost, can be very powerful. Some researchers have suggested that social media could encourage behaviour change in the same way as face-to-face contact, potentially influencing large numbers of people in a cost-effective manner.

This study explored whether social media could be used to help consumers at a large UK retailer reduce their food waste. The researchers worked closely with the store's organisation to design three one-off interventions with messages to reduce food waste, using the store's communication channels.

For the first intervention, a feature article containing expert tips for reducing the most commonly wasted food at home was published in one issue of the store's magazine. Every month, the magazine is circulated to 1.9 million readers and is available in-store or online. The article included advice on how to store food and use up leftovers in appetising ways.

For the second intervention, two feature articles were published in the store's e-newsletter, which is distributed to 1.4 million customers. One feature discussed household food waste and how to use leftovers. There was also a link to a social media campaign, which encouraged customers to share ideas for reducing food waste. The second feature advised consumers on how to store food and keep it fresh.

The third intervention posted a campaign on leftovers on the store's Facebook page. Customers were encouraged to interact by sending in their favourite recipes using leftover food and also to go to a separate website which gives advice on how to reduce food waste.

The researchers then assessed whether the campaigns changed consumer behaviour using an online questionnaire. In all, 2018 customers completed the questionnaire, which asked about how often they threw away food, and how much. Participants filled in the questionnaire three times: one month before the interventions, two weeks after the interventions and five months after the interventions. For comparison, the researchers also questioned a control group of customers who had not seen any of the intervention campaigns.

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DOI:10.1016/j.resconrec.2016.10.016. This study is free to view at:

<http://www.sciencedirect.com/science/article/pii/S0921344916303160>.

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1. Closing the loop - An EU action plan for the Circular Economy. <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015DC0614>

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The researchers found there was a significant reduction in the quantity of food wasted by participants five months after both the e-newsletter and Facebook initiatives finished, compared with the amount of food wasted before either initiative.

For magazine readers, there was a small but insignificant fall in food wasted five months after the campaign, compared with before the campaign. This, say the researchers, suggests that the magazine did not significantly change consumer behaviour.

Surprisingly, however, the consumers who had not seen any of the campaigns also significantly reduced the amount of food they wasted at the end of the five month period. The researchers have suggested that this might be a result of consumers being subliminally influenced by similar interventions, which happened in wider marketing promotions. They have collected more data and are researching this idea further.

One implication of this study is that social media may not be able to influence behaviour change in the same way that face-to-face social interactions have been reported to do so, given that the social media participants performed no better than the control group. The researchers suggest that this might be because the message to reduce food waste conflicts with typical social media topics which encourage consumers to buy more from retailers.

Therefore, an area for further work is how to capture the face-to-face experience in behaviour change interventions that could allow retailers to influence millions of consumers.

One of the benefits of this study was that behaviour change interventions were tested on consumers in real-life, as opposed to laboratory settings. In daily life, numerous distractions compete for people's attention, which may explain why laboratory studies, with no distractions, have previously found social media campaigns to be effective in encouraging behaviour change.

Although the study relied on self-reported surveys, the researchers suggest that the surveys themselves were unlikely to have caused the reported food waste reductions, since there were a large number of participants in the study from a range of different backgrounds.

The researchers suggest that the scale of behaviour change needed to reduce food waste may ultimately require initiatives from the food industry, or from government, rather than from individual companies.

