

Exploring the Influence of Normative, Financial and Environmental Decision Frames in Nudging 'Green' Behaviour, and Increasing Uptake of Energy-Efficient Technologies

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Abstract : The persuasive potential of normative and feedback (financial vs. environmental) information in 'nudging' people towards making environmentally sound decisions was explored in a hypothetical choice experiment. The research was specifically focused on determining how subtle variations in the decision frame could be used to increase the selection of energy efficient vs. standard technologies, using the context of home heating choice. Participants were given a choice of a standard heating system (a gas boiler) and a relatively more-energy efficient option (a heat pump). The experiment had a 2 (normative vs. no normative information) by 3 feedback type (financial, environmental, none) design. The last group constituted the control. Half of the participants were given normative information about what the majority of others in their neighbourhood had opted to do when faced with the same choice set, prior to making their decision. The other half received no such information. Varying feedback frames were incorporated by providing participants with information on either financial or environmental savings that could be achieved by choosing the heat pump. No such information was provided in the control group. A significant interaction was found between normative information and feedback frame type. Specifically, the impact of feedback frames was found to be reduced when normative information was provided; illustrating the overriding influence of normative information on option preference. Participants were significantly more likely to select the heat pump if they were vs. were not given normative information. Yet when no normative information was provided, the persuasive influence of the financial frame was increased - highlighting this as an effective means of encouraging uptake of new technologies in this instance. Conversely, the environmental frame was not found to differ significantly from the control. Marginal carryover effects were also found for stated future real-life decision-making behaviour, with participants who were versus were not given normative information being marginally more likely to state they would consider installing a heat pump when they next need to replace their heating system in real life. We conclude that normative and financial feedback framing techniques are highly effective in increasing uptake of new, energy efficient heating technologies involving significant upfront financial outlay. The implications for researchers looking to promote 'green' choice in the context of new technology adoption are discussed.

Keywords : energy-efficient technology adoption, environmental decision making, financial vs. environmental feedback framing techniques, social norms

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