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# Consumers' contribution to a climate neutral EU: What influences the adoption of food-related mitigation options?

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## ABSTRACT

The main aim of this contribution is to identify factors that influence consumers' willingness to adopt food-related options to mitigate climate change and reveal how these factors are interlinked. In-depth interviews were carried out with 32 consumers in Germany, France and the UK; the results were analysed and described in the context of Alphabet Theory. The allocation of findings from the interviews to the theoretical framework helps to identify interrelations, to provide explanations and thereby achieve to take a holistic view on the topic, without neglecting contextual information. The findings of this study indicate that a higher level of knowledge will result in more personal responsibility assumed by the consumers and will increase their willingness to adopt mitigation options. Hence, public information campaigns and education programs initiated to enhance consumers' knowledge on climate-friendly food choices. At the same time, climate-friendly food products need to be easily available and identifiable to help consumers to act according to their attitudes.

Keywords: Climate change; food-related mitigation options; in-depth interviews; Alphabet Theory

### 1 Introduction

The EU aims to be climate neutral by 2050. A recent special Eurobarometer on climate change reveals that almost 80% of the respondents think that climate change is a very serious problem and almost one quarter thinks that it is the single most serious problem facing the world today. Regarding the responsibility for tackling climate change, 55% of the respondents mention their national government and 36% state that the responsibility lies with them personally. While the most often mentioned personal action is the reduction of waste and its separation for recycling (75%), the adoption of climate friendly food purchases is only named by 18% of the respondents (European Commission 2019). However, agriculture and food production account for over 25% of the anthropogenic greenhouse gas emissions (Springmann et al. 2016). Those emissions can, for example, be reduced by eating seasonal fruits and vegetables or by replacing meat with plant-based proteins, but consumers are relatively unaware of the effectiveness of different measures (Kause et al. 2019). The aim of this contribution is to identify factors that influence consumers' willingness to adopt food-related mitigation options and reveal how these factors are interlinked.

### 2 Methodological Approach and Theoretical Framework

While most studies on consumers' attitudes towards and willingness to adopt measures to mitigate

climate change take a quantitative approach, this study takes a qualitative approach to reveal insights that often remain undiscovered in large consumer surveys. Hence, semi-structured in-depth interviews were carried out with 32 consumers in Germany, France and the UK (note: interviews were conducted as part of the ERANET-SUSFOOD project Susdiet) and analyzed in the context of Alphabet Theory. Alphabet Theory combines Attitude-Behavior-Context Theory (Guagnano et al. 1995) and Value-Belief-Norm Theory (Stern et al. 1999). Zepeda and Deal (2009) merged both theories and added knowledge, information seeking, habits, and demographic data in order to better explain behavior. The theoretical model was adapted to the context of this study, in that responsibility was added. Figure 1 shows the adapted



Figure 1. Adapted theoretical model (based on Alphabet Theory; Zepeda & Deal, 2009)

theoretical model, including keywords to briefly summarize those aspects that make up the respective elements in this study on food-related mitigation options for climate change.

### 3 Results and implications

The organization of the results according to the theoretical framework reveals that the general lack of knowledge can be attributed to a lack of information concerning food-related mitigation options. Most respondents have not knowingly recognized carbon labels on food before and some are not sure whether they can trust those labels. The theoretical framework shows that attitudes towards climate change influence the degree to which consumers seek information, which in turn influences knowledge and knowledge influences consumers' attitudes. In addition, attitudes affect responsibility, i.e. whether consumers believe that they personally are responsible or whether they allocate responsibility for climate change mitigation to other actors. The interviews show that most consumers ask for support from policy makers and retailers, because they do not feel able to gather enough information to make the "right" choices themselves. These findings indicate that a higher level of knowledge will result in more personal responsibility assumed by the consumers and thereby will also increase their willingness to adopt mitigation options. Hence, it is important to inform consumers and enhance their knowledge through broad public information campaigns and education programs and at the same time increase the availability and visibility of climate-friendly products to help consumers to act according to their attitudes.

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