

Contextual and Psychological Indicators of Car Purchase

A. Nayum & C. A. Klöckner

Norwegian University of Science and Technology (NTNU),
Department of Psychology, Trondheim, Norway

The level of motor vehicle ownership and use has been increasing steadily, and become the “source of more air pollution than any other single human activity” (OECD, 1995). A contribution to the solution of this problem would be to successively replace an aging car fleet with new cars that are fuel efficient and more environmentally friendly. An important research goal at first sight is therefore to disentangle determinants of car purchase behavior.

Until now published models to forecast car buying behavior have been developed mainly by economists and market researchers. However, these models have been primarily focusing upon situational factors, vehicle performance and application, household characteristics and geographic variables (Potoglou & Kanaroglou, 2007). On the other hand, in addition to such objective factors, psychological factors seem equally important (Peters, Gutscher, & Scholz, 2011).

The aim of the current project is thus to explore the role of psychological factors on purchase of fuel-efficient vehicles under the premise that psychological variables not only influence behavior directly, but also mediate the objective factors of car buying.

Investigation has shown that various psychological variables such as specific beliefs, attitudes, norms, and motives influence most types of environmental behaviors (Bamberg & Möser, 2007). Recently Klöckner & Blöbaum (2010) proposed a comprehensive action determination model (CADM) by integrating the various determinants proven to influence environmental behaviors. The CADM represents a promising model structure for the person specific influence on pro-environmental behavior, and we thus adopt it with a few adaptations for the case of car purchase behavior (see Figure 1).

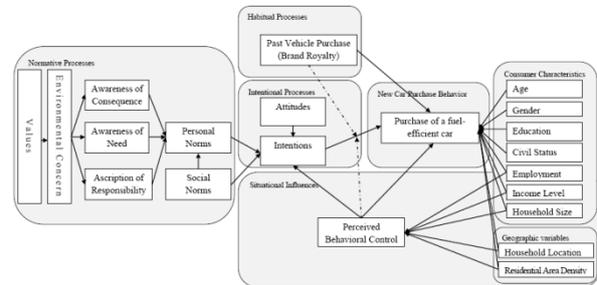


Fig.1. Theoretical integrated model to explain new car purchase behavior, adapted from Klöckner and Blöbaum (2010).

To test the essential parts of the theoretical model an invitation letter asking to participate in an online survey was sent out in April/May 2011 to 2000 Norwegian households who bought a new personal car in December 2010. The survey consisted of questions developed to measure all sources specified in the model above. 269 (response rate = 13.5%) answers were received before the deadline. Subsequent data analysis is being carried out.

References

- Bamberg, S., & Möser, G. (2007). Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behavior. *Journal of Environmental Psychology*, 27, 14–25.
- Klöckner, C. A., & Blöbaum, A. (2010). A comprehensive action determination model – towards a broader understanding of ecological behavior using the example of travel mode choice. *Journal of Environmental Psychology*, 30(4), 574–586.
- Organization for Economic Co-operation and Development [OECD] (1995). *Motor Vehicle Pollution: Reduction Strategies Beyond 2010*. OECD, Paris.
- Peters, A., Gutscher, H., & Scholz, R. W. (2011). Psychological determinants of fuel consumption of purchased new cars. *Transportation research Part F*, 14, 229–239.
- Potoglou, D., & Kanaroglou, P.S. (2007). Household demand and willingness to pay for clean vehicles. *Transportation research Part D*, 12, 264–274.