Transforming The Swiss Mobility System – Who Are The Future E-Sharers?

The Swiss mobility system is undergoing a paradigm shift from fossil fuel based mobility to more carbon neutral and energy efficient ones. Yet, this transformation is still in its infancy. With the current trends of digitalisation new forms of mobility service emerge. Such service include the option of car and ridesharing as well as Mobility as a Service (MaaS) through easy-to-use mobile apps. In order to reach the CO2 target defined by the Swiss energy strategy in 2050, a key point is the electrification of passenger cars. To achieve this, it is suggested that MaaS and e-sharing platforms could foster an acceptance of electric vehicles. While many scholars already investigated the relevant factors that would promote the use of sharing or electric vehicles [1][2][3], less is known about the groups or segments that are open for e-sharing and MaaS. We thus adopted a top-down segmentation approach to identify relevant groups for e-sharing and MaaS, supporting policy makers and practitioners in accelerating the transformation of the Swiss mobility system by developing tailored incentives.

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Approach

Sequential choice-experiment (N = 995)

Car size
- Micro
- Small
- Small-medium
- Mid-sized
- Large
- SUV

Car type
- ICE
- Hybrid
- Plug-in hybrid
- BEV

Mode choice
- Public transport
- Carsharing
- Car with driver
- Your car (from previous choice)
- Bicycle/Foot

Top-down Segmentation

Car type choice?
(ICE, Hybrid, Plug-in hybrid, BEV)

Using carsharing?
No/Yes

ICE
Hybrid
Plug-in
BEV

Preliminary Results Q1

The e-sharers are better balanced in regard of gender compared to solely plug-in buyers. They also increasingly live in the city and opt for a smaller car as compared to ICE buyers. Generally, experience with sharing leads to higher openness for MaaS, while BEV and plug-in buyers display the highest openness.

Expected impact

The study is expected to fill the gap of the current literature by defining the characteristics of e-sharers, factors that would increase the likelihood of belonging to this segment and provide further psychological as well as sociological insights of the specific segments. Contrasting the e-sharer segment to the ice group, relevant differences can be revealed and used as starting points when defining tailored policy interventions to promote the uptake of electric vehicles as well as MaaS and as such, increase the sustainability of the Swiss transport system.

References


Research Question

in a first step, we analyse the top-down segments according to a plethora of socio-demographic variables as well as their openness to use MaaS (Q1). In a second step, we investigated the mode choice decisions of the top-down segments in three specific trip purposes: commuting, weekday leisure less than 20km away from place of residence and weekend trips (Q2).

Q1: Who are the future e-sharers and MaaS users?

Q2: Do the segments differ in mode choice?