MOBIS
Response rates and survey method results

Conference Poster

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Publication date:
2021-01

Permanent link:
https://doi.org/10.3929/ethz-b-000486058

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MOBIS: Response Rates and Survey Method Results

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1 Introduction

We present the response rates and methodological observations from the MOBIS study, a nation-wide mobility pricing field experiment in Switzerland.

Mobility pricing is widely regarded as a promising policy measure to combat congestion, internalize external costs of transport, and offset decreasing fuel tax revenues.

2 Study design

• In the field experiment, participants used a GPS tracking app, Catch-my-Day, which logged their daily travel on different transport modes and imputed the trip segments and modes.
• The experiment lasted 8 weeks, bookended by online surveys. After the first 4 week control phase, participants were split into three treatment groups:
  • The first continued as a control
  • The second received information on their external costs
  • The third received a real monetary budget, from which their external costs were deducted
• 100 CHF for participating for the entire 8 weeks
• Neither the ‘mobility pricing’ nature of the study nor the focus on the external costs of transport was shared with the participants before the treatment phase.

3 Catch-my-Day App

![Figure 1: Screenshots from the Catch-my-Day app](image)

4 Results and Discussion

• The first results show that the technology is capable of supporting such an experiment on both Android and iOS, the two main mobile platforms.
• Significant differences in the engagement and attrition were observed between iOS and Android participants over the 8-week period.
• The attrition rate did not vary between treatment groups.
• This work makes multiple contributions to the literature on conducting tracking-based mobility studies, and demonstrates the feasibility of running an incentive-based field experiment using a tracking app.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Android</th>
<th>iOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airplane</td>
<td>99.48%</td>
<td>98.86%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>81.59%</td>
<td>79.14%</td>
</tr>
<tr>
<td>Bus</td>
<td>66.98%</td>
<td>66.82%</td>
</tr>
<tr>
<td>Car</td>
<td>92.98%</td>
<td>93.15%</td>
</tr>
<tr>
<td>Rail</td>
<td>89.50%</td>
<td>91.05%</td>
</tr>
<tr>
<td>Local train</td>
<td>88.67%</td>
<td>90.18%</td>
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<tr>
<td>Regional train</td>
<td>71.35%</td>
<td>73.40%</td>
</tr>
<tr>
<td>Subway</td>
<td>93.56%</td>
<td>92.53%</td>
</tr>
<tr>
<td>Train</td>
<td>63.13%</td>
<td>63.78%</td>
</tr>
<tr>
<td>Train</td>
<td>95.01%</td>
<td>96.64%</td>
</tr>
<tr>
<td>Walk</td>
<td>95.56%</td>
<td>97.21%</td>
</tr>
</tbody>
</table>

![Figure 2: Kaplan-Meier Survival curve, including post-study retention](image)

![Table 1: Catch-my-Day mode detection accuracy](image)