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Will consumers prefer shared and pooled-use autonomous vehicles?

Thomas Stoiber

Experiment: User preferences of shared autonomous vehicles (SAV)

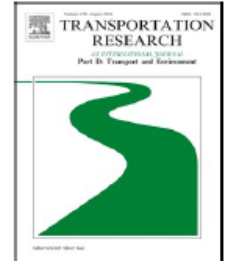
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Will consumers prefer shared and pooled-use autonomous vehicles? A stated choice experiment with Swiss households



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Transport modes

Scenario 1: Autonomous private car

- Car can pick up on request
- Private ownership
- For urban use
- Can be used for long distances



Source: <http://www.rinspeed.eu>

Scenario 2: Autonomous taxi

- Owned by a taxi corporation or sharing provider
- They operate on an on-demand system
- Cover short to medium distances
- Can be used for long distances
- Can be used for access to or from public transport



Scenario 3: Autonomous Public Transport Service

- Autonomous vehicles are integrated into the public transport network
- They operate on an on-demand system or line-based on schedule
- Modular structure allows flexible adaptation to specific needs
- Cover short to medium distances in an urban or rural environment
- Can be used to cover the «first mile» or the whole trip.



Source: <http://www.next-future-mobility.com/analysis>

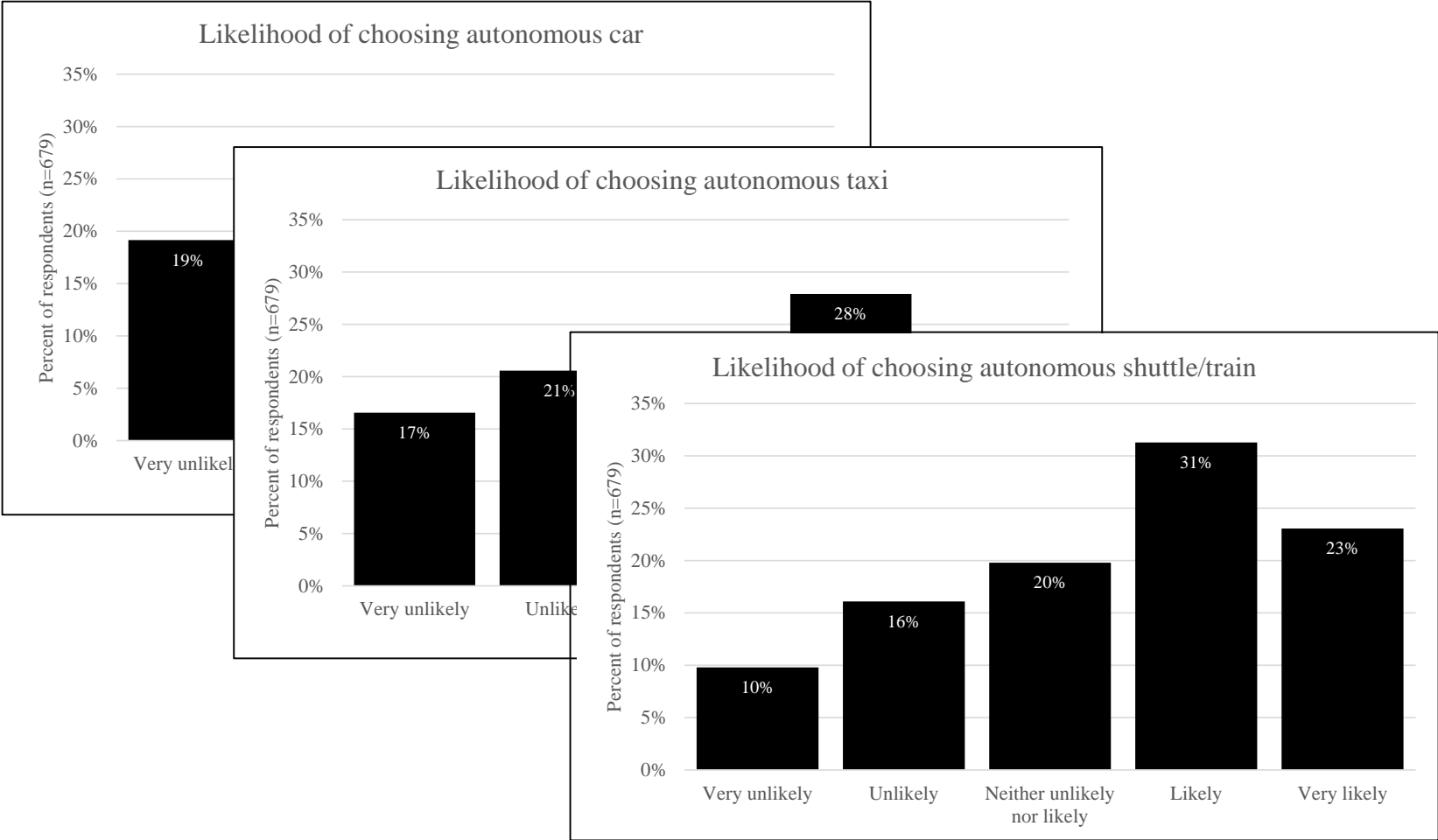
<http://www.srf.ch/news/regional/bam-freiburg-walloch-in-walloch-beginn-die-zukunft-der-mobilitaet>

Parameters for mode choice

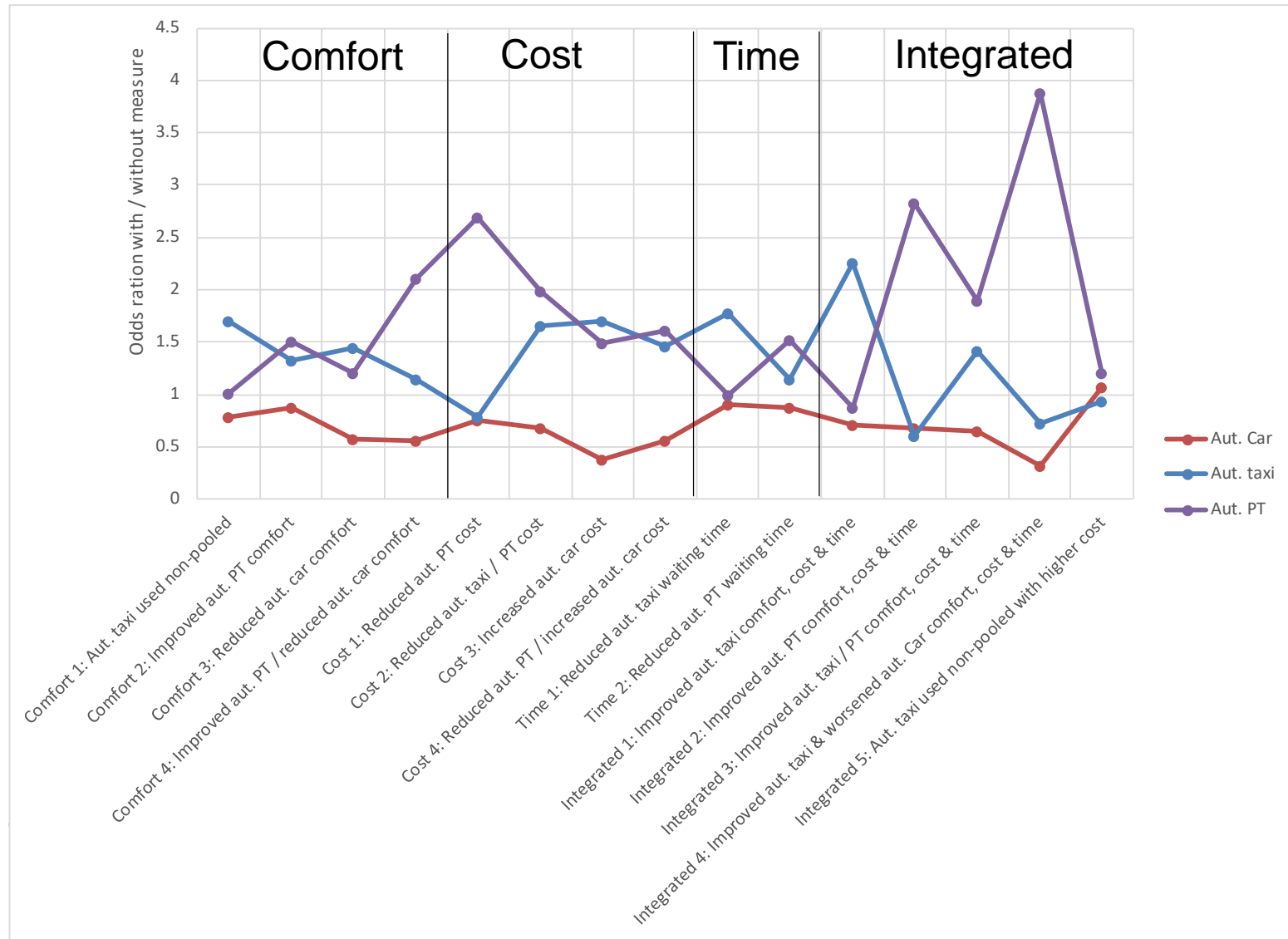
	Option 1: Trip with autonomous private car	Option 2: Trip with autonomous shared taxi	Option 3: Trip with autonomous public transport shuttle / rail
Price	0.50 CHF/km --> 25.00 CHF	0.35 CHF/km --> 17.50 CHF	0.40 CHF/km --> 20.00 CHF
Walking distance	0 km	0 km	0.4 km
Sharing vehicle with others	NO	YES	YES
Number of persons in vehicle	1	3	Shuttle: 4 Train: Many
Level of reliability	MEDIUM (traffic jams)	MEDIUM (traffic jams)	MEDIUM (delays)
Waiting time	0 min	15 min	15 min
Overall travel time	65 min	65 min	65 min

	Very unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Very likely
Option 1: Autonomous private car	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 2: Autonomous shared taxi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Option 3: Public transport shuttle / rail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mode preferences



Mode preference with measures fostering sharing / pooling



More information in our article

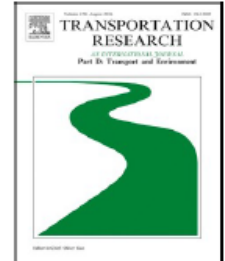
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Thank you.

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