

Mobility information services and its consequences for travel behaviour considering different user types

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Expectations on Mobility Information Services (MIS)



From a transport professional's perspective:

- To inform about different modes of transport encourage multimodality
- ✓ To lower barriers of public transport usage
- To help form an integrated transport system allowing intermodal trips

From a transport system user's perspective:

- Supporting decision making behavior
- ✓ Enhancing comfort
- Giving personalized recommendations according to my needs



Research Question

Do Mobility Information Services (MIS) influence travel behavior?

- ✓ What are the benefits of MIS?
- ✓ Who are the users of MIS?
- Do MIS encourage the use of alternative modes of transport and support multimodality?



://www.connect.de/themen_spezial/2562212



Data analysis

- Analyzing the question: Do MIS influence travel behavior?
 - ✓ Cluster analysis to show different groups of behavior
 - ➤ Showing the potential impact
- ✓ Data basis: "Information and Communication Panel" (ICT Panel 2007)
 - Sample size: 3.500 persons
 - Contents: User needs and attitudes of ICT usage
 - Representing German speaking population age 14+

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Methodology

- - WARD Algorithm minimizes heterogeneity within the cluster and maximizes the distance between clusters
 - Cluster separated by:
 - 1. Objective measurable items of MIS usage
 - 2. Attitude items towards MIS usage

Item categories:





European Conference on Human Centred Design for Intelligent Transport Systems, Berlin (Germany) Slide 5 29 April, 2010

Cluster characteristics

Cluster 1: open minded	age 50, high education, medium income, high car usage, high walking and PT affinity but only occasional user (n=577)
<u>Cluster 2:</u>	age 46, good education, medium income, very high car usage, doesn't like walking or PT (n=1039)
<u>Cluster 3:</u> conservative	age 46, medium education, high income, very high car usage, doesn't like walking or PT and never uses it (n=1612)
<u>Cluster 4 & 5:</u>	age 56, low income, low education, low car availability, forced to use PT (n=113 + 159)

Hypothesis: According to the high PT affinity, cluster 1 is more open to adjust their mode choice towards PT due to better MIS than cluster 3.



MIS effects on travel time and comfort



Mode choice behaviour and multimodal potential



First conclusions

Hypothesis: According to the high PT affinity, cluster 1 is more open to adjust their mode choice towards PT due to better MIS than cluster 3.

Yes, the cluster "open minded" is:

- more open to use MIS
- is optimistic about benefits in their usage
- is more likely to adapt their mode choice but only to a small extent

Lets talk numbers! What is the real potential?



Potential of increased public transport (PT) use

Potential in numbers for Germany



Modal split rises from 8.2 % to 9.4% for PT (relative +15%!) Increase of 3.0 Mio. PT trips/d



Overall conclusions and further research

- ➤ Considerable potential of users for advanced MIS
- → Big field tests are needed to prove the potential
- Information is the missing link between different modes of transport encouraging intermodal trips



Thank you for your attention!

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