CATI-survey related to the travel habits of the Austrians

Methods and challenges

Tourism & Travel Statistics (Statistics Austria)

Primary Statistics

- Accommodation capacity
- Arrivals & overnight stays
- Trips with overnight stay
- Same-day trips
- Travel Behavior of Austrians

Accounts

- Travel Balance of Payments
- Tourism-Satellite Accounts
- Income from incoming travel
- Spending on outgoing travel
- Value added
- Labor force
Integrated system

Overview

- CATI surveys methodology
  - Coverage,
  - Survey design
  - Quality assurance
- Challenges
  - Overview
  - Non-response
- Results 1969-2014
- Conclusions
Coverage (1)

Austrian population (>15 years)

Holiday and business trips

Overnight stays

Same-day trips

Domestic and outbound

Purpose of trip, month of departure, length of stay, destination, organization, means of transport, kind of accommodation, travel group (household members), expenditure

Domestic: Number of trips for holiday and business purposes

Outbound: Purpose of trip, month of departure, destination, means of transport, travel group (household members), expenditure

Coverage (2)

Advantages

- „Visiting friends and relatives“ (VFR) and trips to owned dwellings are covered
- Same-day tourism and business tourism is covered
- Sample of individuals is amenable for extrapolations
- Highly informative information that is open to all kinds of analyses (e.g. profile of the trips and tourists)

Preconditions

- Full register of residents
- Telephone book
- Budget to cover the field work
- Legal basis
Survey design

Sampling of individuals ➔ “Central Register of Residents” (CRR) and telephone book
Ex ante information ➔ Info letter
Interviewing phase ➔ CATI
Plausibility checks
Imputation, extrapolation

Quality assurance (2)

- Info letter & respondent service
- Pre-tests (e.g. expenditure questions based on all household-members)
- Comprehensive interviewer guide with examples
- No incentives for agents (i.e. paid per hour)
- Inform agents about quality checks
- Interviews during the morning and (mainly) afternoon (4-8 pm)
- Agent training (incl. retraining)
- Supervision & immediate interaction
- Reporting system on agent level (e.g. duration of interview, duration of questions, number of non-respondents)
- Integrated plausibility checks (CATI)
- Access to micro data files
Quality assurance (3)

DATA PROCESSING

- Closed questions only
- Additional plausibility checks (e.g. expenditure minimums)
- Imputation of missing and implausible values (e.g. expenditure)
- Extrapolation

Quality assurance (4)

RESULTS

- Macro-plausibility check (i.e. with other data)
- Accept limits of sample (i.e. sample error)
- Avoid pseudo-accuracy (i.e. figures in 1000)

To prevent misinterpretations and improve confidence in figures

document and try to quantify problems!

Documentation of the Austrian sample survey (in German):
http://www.statistik.at/web_de/dokumentationen/Tourismus/index.html
Challenges - overview

- **Recall problem** (i.e. retrospective survey, item non-response)
- **Coverage and bias** (i.e. invalid telephone numbers, non-response)
- **Time restraint** (i.e. duration of the interview max. 15 min.)
- **Comparability** (i.e. over time, coherence with other data)
- **Sample error** (depending of no. of cases)

Challenges – feasible solutions

- **Recall problem** (i.e. retrospective survey, item non-response) → Decreasing the period of reference
- **Coverage and bias** (i.e. invalid telephone numbers, non-response) → Alternative survey techniques e.g. CAWI, non-response analysis
- **Time restraint** (i.e. duration of the interview max. 15 min.) → Actual number of trips is asked but further details only about first trip
- **Comparability** (i.e. over time, coherence with other data) → Keep methodology as stable as possible; weighting
- **Sample error** (depending of no. of cases) → Increase number of cases in sample, stratification
Non-response analysis (1)

- Gross Sample Drawn from Central Registration Register (CRR)  
  - 25,000 persons/addresses

- CRR Gross Sample Connected to Official Phone Book  
  - 11,000 cases due to existing telephone number and address

- Actual Sample of Respondents who Provided Information on Trips  
  - 3,500 respondents answering and with valid telephone numbers

Non-response analysis (2)

Main objectives

- Analysis of the demographic structure of non-respondents compared to the respondents (e.g. income, labour status)

- Analysis of the demographic structure of the non-respondents due to missing telephone numbers (e.g. are people with higher income still in the official phone book?)

- Analysing the demographic differences between those who are drawn from the CRR compared to those who have a valid number in the official telephone book
Main holiday trips ¹) - travel intensity 1969-2014

¹) With at least 4 overnight stays.

Conclusions

- Quality assurance of CATI interviews binds a lot of technical and human resources
- Variety of challenges has to be solved
- CATI surveys facing increasing quality constraints
- Invalid and missing telephone numbers
- Alternative survey techniques have to be considered
- Data analysis (e.g. non-response) supports decisions for further improving measures
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Methods and challenges


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