Willingness to pay for online physician services

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Aim and background of the study

- Little information was found on the extent of exchange in online health services.
- Aim of the study was to estimate and explain consumers’ willingness to pay for online physician services.
- Utilization of results:
  1. estimate the size of the market in e-health services and
  2. provide information for policy makers.
Data

- Random sample: 1500 individuals in Kuopio area, Finland
- Mailed questionnaires, response rate 51.5%.
- Information on
  1. income (personal income)
  2. distance to a closest physician
  3. gender
  4. age
  5. health (perceived health),
  6. has a computer/does not have a computer
  7. general interest in computer technology
Open-ended question: Suppose that you or your child contracts a disease. You may visit a physician or obtain the same service through a computer network from your personal computer. What is the maximum amount you would be willing to pay for the online physician service?
WTP questions

- **Take-it-or-leave-it question**: Suppose that you or your child contracts a disease. You may visit a physician or obtain the same service through a computer network from your personal computer. Would you be willing to pay for the online physician service \( x \) FIM.

- Value of the bid \( x \) varies between 10 FIM - 300 FIM
Hypothesis

- WTP is increases (+) or decreases (-) as
  1. income (+)
  2. distance to a nearest physician (+)
  3. health state (+)
  4. gender (+/-)
  5. age (-)
  6. comp (+)
  7. interest (+)
  changes.
First model

- $WTP_i = \beta_1 + \beta_2' X_i + \varepsilon_i$, where
- $X = \{\text{income, distance, gender, age, comp, health, interest}\}$
- Linear model, OLS techniques
Second model

- Frequency of WTP = 0 is quite high (46%).
- Tobit model:
  1. \( WTP_i^* = \beta_1 + \beta_2'X_i + \epsilon_i \), where 
     \( WTP_i = 0 \), if \( WTP_i^* < 0 \)
  1. \( WTP_i = WTP_i^* \), if \( WTP_i^* > 0 \), and 
  2. \( \epsilon \) is assume to be normally distributed. 
  3. \( X \) contains the same variables as above.
Results, OLS

- Statistically significant explanatory variables: income, distance, distance*age, interest.
- Impact of the variables on WTP: income (+), distance (+), distance*age (-), interest (+).
- Coefficient of determination, R² = 0.22.
- Mean WTP: 11 €'s
Results, Tobit model

- Statistically significant explanatory variables: income, distance, age, interest.
- Impact of variables on WTP: income (+), distance (+), age (-, not significant) interest (+).
- Mean WTP: 11 €’s