



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



WTP question

- *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. $WTP_i^* = \beta_1 + \beta_2'X_i + \varepsilon_i$, where
 $WTP_i = 0$, if $WTP_i^* < 0$
 1. $WTP_i = WTP_i^*$, if $WTP_i^* > 0$, and
 2. ε 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, $R^2 = 0.22$.
- 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