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ALPTER Landscape preferences

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Choice model on landscape preferences

How attractive are terraced areas for tourists – particularly terraces?

Landscape scenarios developed from tourism, agriculture and nature conservation view:

- Current condition
 - Threats: abandonment or/and intensification
 - Further developments: tourism use
- ➔ several influencing factors: trade-offs
- ➔ multivariate approach needed: choice modelling

Choice model on landscape preferences

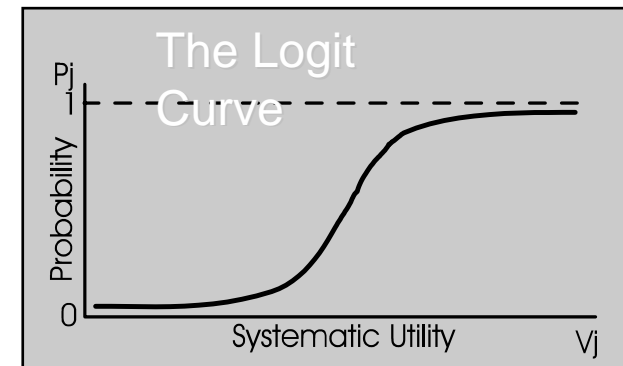
In stated choice models, alternatives are defined as combinations of attributes; respondents choose among alternative configurations of the attributes;

Choices can be modelled as a function of the attributes of the alternatives.

Random utility model: $U_i = V_i + \varepsilon_i$

Prob {i choosen} = $\{V_i - V_j > \varepsilon_j - \varepsilon_i; \forall j \in C\}$

Prob {i choosen} = $e^{V_i} / \sum e^{V_j}$





Choice model on landscape preferences

Attributes included:

- (1) Tourism: number of visitors (social carrying capacities of terraced landscapes) and tourism infrastructure (presence of educational trail, restaurant) (8 Levels)
- (2) Amount of terraces – original to one terrace only (4 Levels)
- (3) Shares of slope length with vegetation (4 Levels)
- (4) Presence of cows or/and orchards (4 Levels)
- (5) Kind of area use – different mixes of meadows, agriculture, forest (4 Levels)
- (6) Signs of current agricultural use: presence of tractors and/or differently coloured hay bales (4 Levels)



Choice model on landscape preferences

Each image depicts different levels of 6 attributes according to the fractional factorial design plan (128 images)

- Digitally calibrated images
- Controlled experiment; changes displayed are derived from one setting; most of all other influences can be excluded

Interviews at places, streets and parks in different district of Vienna; currently 147 respondents analysed, more are underway, convenience sample

Choice model – original image



Choice model



Choice model



Choice model



Choice model



Choice model



Choice model



Choice model



Choice model



Choice model



Choice model



Choice model on landscape preferences



„Please choose the most and the least preferred landscape“





Choice model on landscape preferences

Preliminary results:

The more terraces, the more preferred!!! (important factor)

Tourism use intensity: low use intensities are preferred, while a restaurant is not favoured

The more vegetation on slopes, the more preferred

No cows and orchards are disfavoured, while the combination of cows and orchards are most preferred

The more forest, and the more meadows the more preferred, while fields and meadows only are disliked (land use very important)

Tractors are not preferred; hay bales in green are more preferred than those in white