

Package ‘RcmdrPlugin.DCE’

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Type Package

Title R Commander Plug-in for Discrete Choice Experiments

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Depends support.CEs, survival

Imports Rcmdr

Description Adds menu items for discrete choice experiments (DCEs) to the R Commander. DCE is a question-based survey method that designs various combinations (profiles) of attribute levels using the experimental designs, asks respondents to select the most preferred profile in each choice set, and then measures preferences for the attribute levels by analyzing the responses. For details on DCEs, refer to Louviere et al. (2000) <doi:10.1017/CBO9780511753831>.

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RcmdrModels clogit

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RcmdrPlugin.DCE-package

R Commander Plug-in for Discrete Choice Experiments

Description

This package adds menu items for discrete choice experiments (DCEs) to the R Commander. DCE is a question-based survey method that designs various combinations (profiles) of attribute levels using the experimental designs, asks respondents to select the most preferred profile in each choice set, and then measures preferences for the attribute levels by analyzing the responses. For details on DCEs, refer to Louviere et al. (2000).

Details

This package is an R Commander plug-in package for discrete choice experiments (DCEs). It depends on [support.CEs](#) (Aizaki 2012), [survival](#) (Therneau 2020; Therneau and Grambsch 2000), and [Rcmdr](#) (Fox 2005, 2017; Fox and Bouchet-Valat 2020). Refer to Aizaki (2012), Aizaki et al. (2014), and “Non-Market Valuation with R” <<http://lab.agr.hokudai.ac.jp/nmvr/>> for a brief introduction to DCEs in R.

After successfully installing and loading the **RcmdrPlugin.DCE**, the R Commander window will appear, and then you will find “DCE” added to the top-level menus in the R Commander window.

Selecting “DCE” displays menu items. When selecting a menu item, the corresponding dialog box opens. The following dialog boxes are provided by **RcmdrPlugin.DCE**:

- The dialog box for “Design choice sets...” designs choice sets for DCE with the rotation design method or mix-and-match method using the function [rotation.design](#) in [support.CEs](#).
- The dialog box for “Create questions...” creates DCE questions from the choice sets designed in the first dialog box using the function [questionnaire](#) in [support.CEs](#).
- The dialog box for “Create design matrix...” creates a design matrix from the choice sets designed in the first dialog box using the function [make.design.matrix](#) in [support.CEs](#). The resultant design matrix can be also saved as a CSV file with the option “Save as CSV file”.
- The dialog box for “Import design matrix...” read a CSV file containing the design matrix saved in the previous dialog box using the function [read.table](#) in [utils](#).
- The dialog box for “Create data set for analysis...” creates a data set for analysis from the choice sets designed in the first dialog box and a data set containing responses to DCE questions using the function [make.dataset](#) in [support.CEs](#).
- The dialog box for “Fit model...” implements a conditional logit model analysis of the data set for analysis generated in the previous dialog box using the functions [clogit](#) in [survival](#) and [gofm](#) in [support.CEs](#). The menu item “Fit model...” is activated if a data set for analysis created in the previous dialog box is selected as the active data set.
- The dialog box for “Calculate MWTPs...” calculates marginal willingness to pay (MWTPs) of non-monetary variables from the model fitted in the previous dialog box using the function [mwtp](#) in [support.CEs](#). The menu item “Calculate MWTPs...” is activated if the active model is of class “clogit”.

Acknowledgments

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Author(s)

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Examples

```
if(interactive()) {  
  library(RcmdrPlugin.DCE)  
}
```

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