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Ordinal Logistic Regression for the Estimate of the Response Functions in the Conjoint Analysis

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ABSTRACT

In the Conjoint Analysis (COA) model proposed here - a new approach to estimate more than one response function- an extension of the traditional COA, the polytomous response variable (i.e. evaluation of the overall desirability of alternative product profiles) is described by a sequence of binary variables. To link the categories of overall evaluation to the factor levels, we adopt - at the aggregate level - an ordinal logistic regression, based on a main effects experimental design. The model provides several overall desirability functions (aggregated part-worths sets), as many as the overall ordered categories are, unlike the traditional metric and non metric COA, which gives only one response function. We provide an application of the model and an interpretation of the main effects.

KEYWORDS

Aggregate Level Analysis, Conjoint Analysis, Ordinal Logistic Regression, Response Function

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References

- P. E. Green and V. R. Rao, " Conjoint Measurement for Quantifying Judgmental Data," Journal of [1] Marketing Research, Vol. 8, No. 3, 1971, pp. 355-363.
- A. De Luca, " A Logit Model with a Variable Response and Predictors on an Ordinal Scale to Measure [2] Customer Satisfaction," Quality and Reliability Engineering International, Vol. 22, No. 5, 2006, pp. 591-602. doi: 10.1002/gre.764
- W. L. Moore, " Levels of Aggregation in Conjoint Analysis: An Empirical Comparison," Journal of [3] Marketing Research, Vol. 17, No. 4, 1980, pp. 516-523. doi:10.2307/3150504
- T. Amemiya, " Advanced Econometrics," Blackwell Ltd., Oxford, 1985. [4]
- A. De Luca and S. Ciapparelli, " Multivariate Logistic Re- gression for the Estimate of Response [5] Functions in the Conjoint Analysis," Proceedings MTISD 2008-Methods, Models and Information Technologies for Decision Support Systems, Università del Salento, Lecce, 2008, pp. 23-24.
- [6] B. Peterson and F. E. Harrell, "Partial Proportional Odds Models for Ordinal Response Variables," Applied Statistics, Vol. 39, No. 2, 1990, pp. 205-207. doi: 10.2307/2347760
- [7] P. McCullagh, " Regression Models for Ordinal Data," Journal of Royal Statistical Society, Vol. 42, No. 2, 1980, pp. 109-142.

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