Overview

Identifying Hidden Structures in Marketing’s Structural Models through Universal Structure Modeling. An Explorative Bayesian Neural Network Complement to LISREL and PLS
by Frank Buckler and Thorsten Hennig-Thurau
pp. 47–66

Keywords: Structural equation modelling, LISREL, Partial Least Squares, Neural networks, Non-linearity, Interaction effects, Customer loyalty

Universal Structure Modeling (USM), introduced herein, offers an exploratory complement to confirmatory structural equation modeling methods such as covariance-based structural equation modeling (e.g., LISREL) and partial least squares. Because USM combines the iterative methodology of partial least squares with a Bayesian neural network approach involving a multilayer perceptron architecture, it enables researchers to identify „hidden“ structures within their models and highlights theoretically unproposed model paths, nonlinear relations among model variables, and interactive effects. Using synthetic data, the authors demonstrate USM’s ability to identify linear and nonlinear relationships and provide evidence that the method does not overfit the original data. They also find hidden paths, nonlinearity, and interactions in two structural models published in the Journal of Marketing, which illustrates the practical relevance of USM. They provide recommendations for researchers regarding in which conditions and how USM should be used.

Adaptive Design Techniques for Complex Choice-Based Conjoint Experiments. Demonstrating the Need to Consider Dynamic Effects
by Felix Eggers
pp. 67–75

Keywords: Choice-based Conjoint, Adaptive Design Techniques, Analytic Center, Validity, Response Error

Efficient designs for choice-based conjoint experiments must fulfill four criteria: level balance, orthogonality, minimal overlap, and utility balance. Although the first three criteria can be addressed and tested in a static environment, utility balance requires prior assumptions or pretests about the anticipated utility distribution. Recently introduced dynamic approaches adapt utility estimates and the choice design during the questionnaire and therefore do not rely on prior knowledge. This article compares adaptive and static designs in a large empirical study and finds that adaptive designs do not offer superior performance. The findings demonstrate that it is very important to account for different components of response variability and anticipate the magnitude of response error, which affects the performance of adaptive algorithms and therefore the validity of the results.

Price risks, bargaining, and contingent pricing
by Harald Wiese
pp. 76–87

Keywords: Revenue management, contingent pricing, price risk, letter of intent

When a seller and buyer meet, they face a variety of different options. They may strike a deal immediately (in period 1) and thereby risk losing out on a better deal later on (in period 2). They may also decide to wait for better trading partners in period 2, but this option is risky as well because one agent may find himself without a trading partner. In order to alleviate these risks, buyers and sellers use contingent contracts. These contracts give one or both of the partners the right to insist on a deal in the second period.

We show how the optimal type and the terms of a contingent contract depend on transaction costs, probabilities of finding future trading partners, and gains from trade realizable in different constellations. We find that firms should agree on a one-sided contract benefitting the seller (the buyer) if the seller (the buyer) can hope to gain much more than the buyer (the seller) from the appearance of an alternative trading partner.

Bridging the gap between ACA and CBC. The relevance of task and context effects for choice simulators
by Christine Ebling and Daniel Klapper
pp. 88–100

Keywords: Preference measurement, context effects, choice simulator

It is well known that preferences are not invariant across elicitation processes or contexts, suggesting that there may be systematic differences between choice and judgement tasks (Moore 2004). Thus, when predicting market shares or choices via choice simulators, such differences should be taken into consideration. Surprisingly, current choice simulators based on judgement tasks ignore them, even though the selection of choice simulator has a huge impact on the validity of predictions based on judgement tasks (Hartmannn and Sattler 2004).

We propose an alternative method based on the context-dependent choice models developed by Kivetz, Netzer and Srinivasan (2004). This method increases the predictive validity of choices derived from judgement-based preferences. It accounts not only for differences in the elicitation process, but it also recognizes the influence of context effects. Our results from two empirical applications, indicate that commonly used choice simulators, based on preferences obtained from judgement tasks, can be improved tremendously by the use of our proposed method.