



RS Consulting USA

A Cello business

Benefits of SIMALTO Modeling

SIMALTO has two major benefits over alternative 'conjoint' type market research trade-off approaches – its data collection and data analysis.

Data Collection

The SIMALTO respondent is faced with making choices between attribute options, each of which is shown with its relative cost (to supply) or price (to buy). This reflects real life purchasing choice behavior, where all product/service benefits do not usually cost the same to deliver.

The full context of product/ service options and their prices/ costs is in view at all times in the questionnaire so discrimination of really valuable benefits from those merely nice-to-have can be made. Choice is also made in the context of the total product/ service cost. Hence the term Simultaneous Multi-Atttribute Level Trade-Off.

Respondents complete a series of sensible unambiguous stepwise questions, which parallel purchasing behavior thinking, e.g. *what do I have, what do I want, what are my priorities to achieve these benefits, and what are they worth to me*. Respondents enjoy the questionnaire completion – it is both informative and a challenge – they see its relevance to their own 'real life' purchasing trade-offs. Respondents that enjoy the questionnaire completion are much more likely to provide high quality thought-through data than those completing repetitive and boring questionnaires.

Full profile conjoint respondents do have to undergo repetitive questioning tasks – so after a well intentioned start, most respondents skip the thinking behind their choice decisions – independent research has proved this to be the case. Suspect quality conjoint type questionnaire data cannot help but generate suspect quality results predictions based upon it.

Data Analysis - Direct

A major SIMALTO benefit is that the data collected is useful in its own right to product management. It directly, with no statistical 'interference', shows what % of respondents wanted option X of attribute Y compared to the % wanting option U of attribute V in their desired product/service specification. The direct data is a useful check that subsequent SIMALTO Modeling product/service specification preference simulations are reliable – very useful if the research findings are not as 'politically' desired as originally hoped.

Data Analysis – Multivariate

SIMALTO Modeling uses a rule-based expert system for its analysis. This is a 'cause and effect' model. An example rule is that if an option is included in a person's desired specification at say their second priority scenario, it conveys the same or more relative 'value' to that person than an option not included until the third priority scenario, and even more than an option not selected at all.

The modeling preference prediction (choice simulation) between competing specifications is based on a person choosing that specification that he perceives gives him the best 'value for money'. This latter is the difference between (1) the initial cost of the specification (used to seed the costs on the SIMALTO matrix) and (2) the relative value the respondent has of that specification. This latter is deduced from 'neural net' type analysis. Each stage of the questioning process makes its own contribution to modeling specification choice based on the model rules, and flexing these (the neural net part) to predict known specification preference results.

SIMALTO Modeling works at the individual respondent level – there is no averaging of response. So as well as avoiding predicting 'winning specifications' that might 'fall between two stools', clustering respondents

with similar priorities (needs-based cluster analysis) is done directly.

SIMALTO Modeling does not give each option a 'utility'. Rather it can provide a preference statistic for any given option over any other option of that feature, allowing for any price difference involved, all other things being equal. This allows a preference 'value hierarchy' to be created showing which options have more influence on consumer choice than others, and as such is similar in appearance to conjoint utilities, but having the benefit of a clearer meaning and more reliable derivation. In Conjoint studies price or cost is treated as a variable whereas in reality it usually acts more as a constraint (albeit with a little bit of flexibility). So the Conjoint method's estimate of the 'utility' of price (usually negative – the higher the price the less the product is likely to be preferred) has a heroic job to do in accurately balancing the utilities (positive) of all the other attribute benefit options.

A valuable report from SIMALTO Modeling is the 'optimum specification' for any total cost/price the user may set. This is calculated to be that specification which gives as many respondents as possible as many of their higher priorities and as few of their lower priorities as possible – a form of 'minimax' analysis.

Profile conjoint analysis relies on a regression approach to determine utility 'part-worths' and uses these to predict specification preference. Regression may be the best mathematical fit of data, but if attributes are correlated (often in service optimization studies) or they are not 'continuous', then the theory behind the regression falls down. A further issue is research that has proved respondents do not give their conjoint questionnaire answers in a manner that fits with the conjoint preference calculation assumptions. It now becomes clear why conjoint is suspect – often low quality data collection, and analysis that may not reflect reality. Conjoint approaches get the obvious factors correct (which any

method would achieve) but middle order factors – those that usually discriminate between viable marketplace products – can have their values very distorted.

To minimize logical and regression problems, conjoint experts usually recommend fewer than 6 or 7 attributes in a conjoint study. A particular problem with conjoint profiles data is when either of price or brand (or any other dominant factor in that product field) is included in the profiles. On occasion the presence of these can overly effect profile choice (from respondents having high priority for a particular brand or a narrow price window say), and thus any other feature options appearing with that brand or desired price in a profile will tend to get, by association, a high utility. This distortion can be so critical that the main

purveyors of conjoint analysis software recommend that price and brand should not be included in the conjoint profiles. (SIMALTO deals with price explicitly, and relative brand values are calculated separately from product/service features and later included into the market preference simulations.)

SIMALTO Modeling is tried and tested, having been used for over 20 years on over 400 projects, and on multiple occasions for such companies as AT&T, H.P., Xerox, U.P.S., Ford, Carrier, GE Medical, Hobart, British Airways, John Deere, Dupont etc.

RS Consulting's principals each have over 25 years of experience in helping companies create solid marketing relationships. We look forward to being a resource for you!

Copyright © 2011

To discuss this topic in detail, please call Richard Barnes (ext. 156), Mark May (ext. 126), or Sue Heintz (ext. 141) at 312-368-0800.



RS Consulting USA
39 South LaSalle, Ste. 505
Chicago, IL 60603

(312) 368-0800
Fax (312) 368-0832
A Cello business