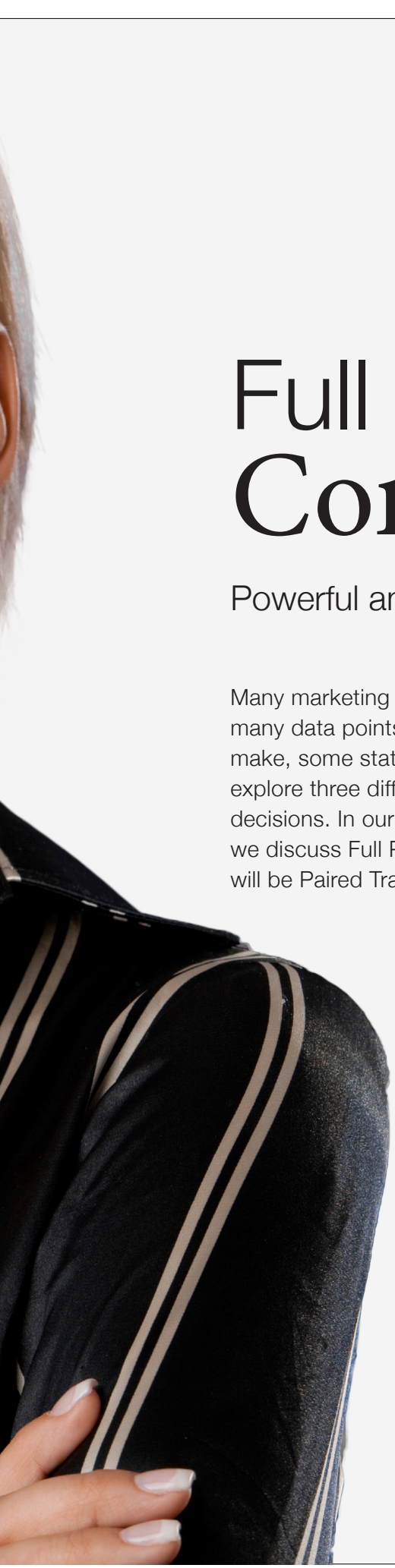

#2
In a three
part series



Full Profile Conjoint Analysis

Powerful and Realistic Tools for Marketing Decision Making

Many marketing decisions require complex decision making processes which incorporate many data points from various sources. Depending on the type of decision you need to make, some statistical techniques are more useful than others. In this three-part series, we explore three different trade-off techniques frequently used for different marketing decisions. In our first article we explored Discrete Choice Modeling; in this second article we discuss Full Profile Conjoint Analysis; and the third and final presentaion of this series will be Paired Trade-Off Analysis.

Like Discrete Choice Modeling…

Full Profile Conjoint Analysis is a trade-off and simulation technique useful for studying these types of questions:

- Product/service design and pricing issues such as what features maximize preference or revenue
- To what extent customers value features and what impact that value has on preference for the feature
- Whether and how to bundle product or service features
- Anticipated increases or decreases in revenues based on the presence, absence, or combination of features
- Combinations of all these issues, as needed

MORE >

Some of these issues can also be addressed by Discrete Choice Modeling. However, not all scenarios require the complexity of Discrete Choice Modeling; they can be quite effectively addressed using Conjoint Analysis.

Furthermore, lower levels of complexity often involve lower levels of investment in the research.

CASE STUDY
Automotive & Trucking Parts

Consider the following example.

An original equipment manufacturer of automotive and trucking parts and services wants to develop a loyalty program to reward customers for their continued business. They have conducted enough preliminary research (including discussions with key internal stakeholders) to identify two different rebate program models, each of which offers a range of percentages for a cash-back program and different options for delivering the rebate.

Furthermore, they have developed a list of non-cash incentives they would like to incorporate into the program which may also serve to increase customer loyalty. However, they want to know which rebate program at what percentage level and what combinations of non-cash features will be most appealing to their customers. They also want to know which program and features will have the greatest positive impact on customers' spending levels with their business. These questions are quite effectively answered in the context of a Conjoint Analysis design.

Design of the Conjoint Analysis Exercise

Just as in Discrete Choice Modeling, one of the first steps in the design of a Conjoint Analysis exercise is to determine the number of attributes and levels to be studied. Attributes are the statistical equivalent of product features and levels are the variations within a particular product feature. In our rebate program example, the main attributes are the presence or absence of a rebate and of non-cash incentives to reward higher levels of purchases. Levels for the rebate attribute range from 1, 2, 3, 4, 5, or 10% of the cash value of purchases made and the point at which customers become eligible for the rebate. Different combinations of the non-cash incentives may also be considered levels.

In Discrete Choice Modeling design, one of the most challenging decisions to make is determining the optimum number of attributes and levels to include. Because the technique allows for more complexity, it is often tempting to include a number of attributes and levels that has the potential to overwhelm respondents and lead them to abandon the survey. This is not typically the case with Conjoint Analysis since the scope of the exercise, while still realistic, is less complex than that of Discrete Choice Modeling. Because the number of attributes and levels is typically smaller than what one finds in Discrete Choice Modeling, sample sizes are often much smaller than those typically required with a Discrete Choice design. Each respondent in a Conjoint exercise rates each of the options in the design, rather than using the fractionalized design discussed in our Discrete Choice Modeling article.

Full Profile Conjoint Analysis

Once these decisions are made, the content of the conjoint exercise is programmed into the survey. At this point, one of the key differences between Discrete Choice Modeling and Conjoint is apparent. Whereas in Discrete Choice Modeling, the choice tasks include several options presented simultaneously, in Conjoint each option is presented individually.

Our example included two different rebate plans, each of which had six different levels percentage levels for the rebate. The plans were randomized and within each plan, the levels were randomized as well. This helped to prevent bias as a result of "educating the respondent" as to what levels to expect. Each plan and each of the plan levels were presented to all respondents.

Respondents were asked to indicate whether their willingness to purchase the client's products and services would increase, decrease, or stay the same based on the availability of this specific rebate plan and rebate percentage. If the respondent indicated an expected increase or decrease, they were asked to estimate by how many percentage points their spending would change.

The non-cash incentives were handled in a similar fashion. Eight different combinations of the distinct non-cash incentives were presented in random order to all respondents, who were asked to indicate by how many percentage points their spending would increase or decrease based on the availability of this specific combination of incentives.

The number of non-cash incentives in any particular set was also varied; this helped the client determine the optimum number of incentives to include in order to maximize anticipated revenue gains.

Typical choices include variables to measure potential share of preference, purchase intent, or product appeal.

Non Cash Incentives

- Free diagnostics and technical inspections
- Additional discounts and special offers from client's business partners
- Free expedited shipping on special orders
- Ability to earn points based on dollars spent which can be redeemed for merchandise, travel, or business equipment

Thinking only of these four incentives, would your willingness to purchase this supplier's products and services increase, decrease, or stay the same if you received these benefits after your purchase?

SURVEY tip

By how many percentage points do you anticipate your current spending level would increase or decrease if you received these benefits after your purchase?

MORE >

What Does Full Profile Conjoint Analysis Provide as Results?

Full Profile Conjoint Analysis yields valuable information about potential share of preference, estimates of purchase intent, estimates of revenue, and can yield important information about competitive products, depending on the design of the choice tasks. Share of preference refers to the percentage of respondents who chose a particular product configuration over others in the design. For example, it is possible to identify what proportion of the potential market is likely to increase their spending level based on the different configurations of the rebate program and incentive package. This is helpful to develop estimates of potential increases or decreases in revenue.

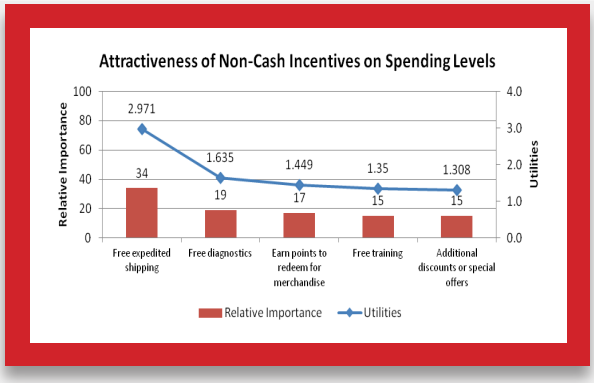
Estimates of purchase intent refine these findings further by identifying how likely potential customers are to actually purchase the product (or products) they like the best. Just because a product is the most highly preferred among alternatives does not necessarily mean customers will purchase it. Looking at interactions between shares of preference and purchase intent helps to provide more guidance into potentially profitable research and development decisions. In some cases, perceived value of a product with a lower price can serve to decrease levels of purchase intent if the customer thinks the product is too inexpensive to consider.

By looking at variations in price, share of preference, purchase intent ratings, and additional information from within the organization and other sources, Full Profile Conjoint studies often yield estimates of market revenue. No study can take into account all market factors not included in the research design, such as advertising, product availability, changes in competitive products or competitive landscape, manufacturing costs, or other strategic initiatives. Consequently, while these revenue estimates should not be expected to allow for all conditions in the marketplace, they can, however, provide accurate estimates based on the quality of the design of the choice tasks themselves and the quality of information available from within the organization.

In situations where competitive products are included in the design, performance potential against competitive products can also be estimated, particularly in regard to head-to-head comparisons of products or services with similar features.

Utility Statistics

The results of Full Profile Conjoint Analysis are typically reported as utility statistics or utilities which correspond to the anticipated increase in share of wallet if the specific product, feature, or service is offered. These statistics allow the organization to see at a glance which product or service features and benefits are most appealing to the customer in the sense of relative importance. A sample display of utility statistics is shown below:



By translating the utility statistics into a measure of relative importance, organizations can see at a glance which features offer the biggest bang for the buck. In our example, the benefit of free expedited shipping has a relative importance of 34, which is more than twice the value for either free training or additional discounts, each of which have a relative importance of 15. Since the relative importance figures are calculated to add to 100 percent, head-to-head comparisons can be made of the benefits being explored and see how they stack up, relative to each other. This means that for purposes of this example, the benefit of free expedited shipping is more valuable to this set of customers than the combined effects of free training or additional discounts. This finding was of great importance to our client and helped them structure an incentive plan that would not only satisfy their customers but also fall well within their budget for the program.

In Conclusion…

In short, Full Profile Conjoint analysis is a valuable tool in both the B2B and B2C spaces to help discover the importance to consumers of suggested benefits and features to a product or service offering. While it cannot handle the complexity of Discrete Choice Modeling scenarios, the results are still statistically valid and very useful in making crucial business decisions. It has the added advantage of being straightforward to design, program, implement, and interpret. These are significant advantages in determining which statistical tools are most appropriate for answering the needs of organizations in a challenging business environment.

About Customer Lifecycle, LLC
www.customerlifecycle.us

Customer Lifecycle is a global research-based consultancy committed to helping our clients avoid costly mistakes by focusing on thorough front-end planning, appropriate support for research execution, and in-depth deployment consulting and implementation at the back end. Outcomes are rigorous and balanced customer-focused performance metrics, improved financial results, and a superior total customer experience. Its mission is to provide companies with insight into their industries and staff by deploying sophisticated analyses to answer tough business questions, and intelligence that clients can act on with confidence, thereby offering an edge in understanding customer choice, engagement, loyalty and advocacy.

Each stage in the customer lifecycle—acquisition, service, growth, retention—has its own unique challenges and solutions to address specific business issues. Customer Lifecycle helps both B2B and B2C focused organizations plan and conduct research to accurately identify and measure customer requirements for satisfaction, loyalty, and retention at every stage of the relationship and to deploy and integrate customer requirements for performance into the processes and internal performance metrics of the organization.
Liaison
We welcome any questions you may have about this thought piece. Please direct all inquiries to:

karin a ferenz | principal

T: 630 412 8989
F: 630 235 9834

kaferenz@customerlifecycle.us

END