Evaluating New Products

Conjoint analysis offers a level of detail that few concept testing methods can match.

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Methods for product concept testing have been around for decades. They are simple to use and appear to have validated well with actual purchase/share data after product introduction. The largest product concept testing firm, BASES Worldwide, has used its procedures and models to forecast sales for more than 10,000 new product concepts in packaged-goods and related product categories.

More recently, conjoint analysis has piqued the interest of many applied researchers long familiar with traditional concept testing techniques. Clearly, both traditional concept testing and conjoint analysis (in its many varieties) remain popular. Each method has its particular pros and cons, suggesting that both will continue to coexist for many years to come.

Concept Testing Methods

Traditional product testing was originally designed for consumer packaged goods and it still serves this market efficiently and relatively inexpensively. Most packaged-goods items represent line extensions or repositionings of existing brands. Consumers' costs of making a wrong decision (whichever the direction—failing to purchase a good item or purchasing an item that turns out not to be good) border on the trivial. Manufacturers' and retailers' costs of being wrong are generally not major problems either because manufacturing facilities typically require few additional expenditures for line extensions and shelf space allocations can be altered quickly.

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The objective of traditional concept testing suppliers is to provide reasonably accurate, short-term projections of market share and sales, given realistic assumptions regarding distribution and promotional support. It is to the research supplier's advantage to make the testing procedures as routine and repetitive as possible to retain the integrity of the norms that have been historically established. Turnaround time is rapid and the reports are standardized to the point that clients can absorb the gist of the study results quickly and easily.

It seems to us that traditional concept testing has found a viable market niche in packaged goods that can be sustained despite the availability of newer, more sophisticated tools, such as conjoint analysis. However, it is less clear how traditional product concept testing can move *beyond* its current emphasis on low-cost, frequently purchased, packaged goods. Its very simplicity and narrow research focus have served to limit its expansion into more complex product and service categories.

Extending Traditional Concept Testing

Highly technical products—computers, telecommunications devices, home entertainment centers, etc.—are difficult, if not impossible, to describe in terms of brief verbal concept boards. The respondent needs to interact with the device to understand its features and functions. AT&T has been one of the pioneers in establishing a consumer laboratory, which features the extensive use of product "prototyping." Potential users can interact with working models of new telecommunications products and evaluate vari-

ous features, alternative pricing/lease plans, and other aspects of a product. Needless to say, the extension of verbal/pictorial concepts to prototypes adds considerable realism to the evaluation scenario.

CONJOINT ANALYSIS

Conjoint analysis, including choice-based conjoint, is a considerably more versatile (if more complex) set of tools whose domain is not limited to packaged goods. Conjoint projects tend to be associated with high-stake, longer-payoff projects where the costs of wrong decisions—on the part of consumers and suppliers—can be high *and* ramifying.

Conjoint analysis goes beyond traditional concept testing in the sense of being concerned with not only the go/no-go decision but also *how* one goes—that is, the product/service configuration that will maximize the firm's sales or cash flow outcomes. As such, conjoint analysis focuses on details—such as price, brand equity, features, attribute-level costs, warranties, technical services, etc.—that involve alternative attribute levels.

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The beauty of conjoint analysis lies in its attention to the *specifics* of each product offering and how the various pieces should fit together to provide an attractive and desired whole. Not surprisingly, the kinds of studies for which conjoint proves useful are those where the products and services are relatively complex, where substantial consumer learning may be involved, and where the item may involve high costs, either seller or buyer, of being wrong (e.g., automobiles, vacation homes, copying machines, etc.).

This is not to say that conjoint analysis has not been applied to packaged goods. Indeed, it has extensively been applied to taste testing, package testing, and ad copy testing in the packaged-goods industry. However, conjoint analysis has also been applied in business-to-business marketing, legal disputes, employee benefits packages, and a host of other product and service domains in the public as well as the private sector.

Concept testing presumes the availability of historical norms for converting respondents' rating points to purchase likelihood. In many cases—particularly situations involving really new products—conversion norms are not available. The researcher must rely on measures computed from primary research, possibly augmented by other types of supporting information. Conjoint studies of new product concepts are particularly useful when:

- Product class histories or norms are not available.
- The researcher is not certain of final product design features.
- The researcher is interested in alternative price/demand relationships, market positioning, and buyer segmentation.
- The new product is technologically complex and requires investigation of consumer learning, where such learning depends on the nature of the product's features.

However, conjoint analysis tends to be relatively more expensive, time-consuming, and difficult to administer than traditional concept testing.

To illustrate the basic concepts of conjoint analysis, assume that a pharmaceutical firm that sells liquid dietary supplements (for use in hospitals) wishes to examine the possibility of modifying its current product. One of the first steps in designing a conjoint study is to develop a set of attributes and levels that sufficiently characterize the competitive domain. Focus groups, in-depth consumer interviews, and internal corporate expertise are some of the sources used to structure the sets of attributes and levels that guide the rest of the study.

Exhibit 1 on page 14 shows an illustrative set of nine attributes employed in an actual study. Note that the number of levels within an attribute range from three to four, for a total of 32 levels. However, the total number of possible combinations of levels is 82,994.

Conjoint analysts make extensive use of highly fractionated factorial designs to reduce the number of stimulus descriptions to a small fraction of the total number of combinations. For example, in

Exhibit 1

Attribute levels for liquid dietary supplement study

Source of protein
1. Amino acids
2. Meat, eggs (natural)
3. Casein
4. Soy/caseinate

Percent calories from protein
1. 24
2. 18
3. 12
4. 6

Caloric density (calories/milliliter)
1. 2.0
2. 1.5
3. 1.0

Incidence of diarrhea, cramps (side effects), % of patients
1. 5
2. 10
3. 15
4. 20

Percent of patients disliking taste
1. 5
2. 15
3. 25
4. 35

Flavor base
1. Fruit juice
2. Chocolate-flavored milk
3. Unflavored

Convenience of preparation
1. Ready-to-use liquid
2. PowderCto be mixed with water
3. PowderCto be mixed in blender

Health professionals' endorsement
1. Most recommend
2. Most are neutral
3. Most are neutral to negative

Therapy-cost per patient per week ($)
1. 40
2. 50
3. 60
4. 70

the preceding problem an orthogonal plan of only 64 profiles (less than 0.1% of the total) is sufficient to estimate all attribute-level main effects on an uncorrelated basis. Because the study designers used a hybrid conjoint design, each respondent received only eight (balanced) profile descriptions, drawn from the 64 profiles. Still, researchers were able to estimate (from a combination of self-explicated data and full profile ratings) a set of part-worths for each individual.

Exhibit 2 shows two illustrative prop cards used in the study. After the respondent sorts the prop cards in terms of preference, each is rated on a 0-100 likelihood-of-purchase scale. In small conjoint studies (e.g., six or seven attributes, each at two or three levels), the respondent receives all of the full profiles, ranging in number from 16-32 prop cards. In these cases, the prop cards are sorted into four to eight ordered categories before likelihood-of-purchase ratings are obtained for each separate profile, within group.

Types of Conjoint Data Collection

There are five major types of data-collection procedures that have been implemented for conjoint analysis:

- *Tradeoff tables.* Each respondent sees a sequence of tables involving two attributes each. The respondent is asked to rank the cell descriptions of each two-way table in terms of preference; other attribute levels are assumed to be equal across the options of interest.

- *Full-profile techniques.* Each respondent sees a full set of prop cards. After initial sorting into ordered categories, each is rated on a 0-100 likelihood-of-purchase scale.

- *Compositional techniques.* CASEMAP (computer-assisted self-explication of multi-attributed preferences) software, for example, uses a compositional technique where the value of an option is computed as the sum of each attribute-level desirability times its attribute importance. (This approach is also called self-explicated preference data collection.) Strictly speaking, CASEMAP is not a conjoint analysis technique because preferences are collected by having each respondent rate only the desirability of each set of attribute levels on a 0-10 scale and then rate each attribute's importance on a similar 0-10 scale.

- *Hybrid techniques.* Each respondent receives a self-explicated evaluation task and a small set of full profiles for evaluation. The resulting utility function is a composite of data obtained from both tasks.

- *Adaptive conjoint analysis.* This technique is also a type of hybrid model in which each respondent first receives the self-explication task followed by a set of partial profile descriptions, two at a time. The respondent evaluates each pair of partial profiles on a graded paired-comparisons scale. Both tasks are administered by computer.

Exhibit 2

Illustrative full profile prop cards

1	2
Protein source ➡ Casein	**Protein source** ➡ Amino acids
Cash rebate ➡ 6%	**Percent calories** ➡ 24%
Caloric density ➡ 2.0 calories/ml	**Caloric density** ➡ 2.0 calories/ml
Incidence of diarrhea, cramps ➡ 20%	**Incidence of diarrhea, cramps** ➡ 10%
Percent disliking taste ➡ 25%	**Percent disliking taste** ➡ 5%
Flavor base ➡ Fruit juice	**Flavor base** ➡ Unflavored
Convenience ➡ Ready to use liquid	**Convenience** ➡ Power mixed with water
Endorsement ➡ Most recommend	**Endorsement** ➡ Most are neutral
Therapy cost ➡ $50	**Therapy cost** ➡ $70

Exhibit 3

Average part-worths from hybrid conjoint model

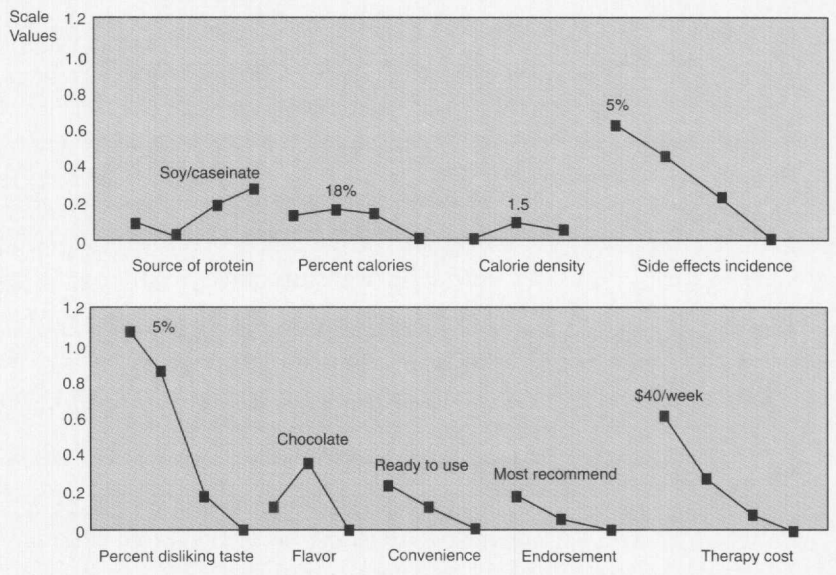

Exhibit 3 shows illustrative (averaged) part-worths for each of the attribute levels described in Exhibit 1. As noted, part-worths are often scaled so that the lowest part-worth is zero within each attribute. Strictly speaking, part-worth functions are evaluated at discrete levels for each attribute. However, in most applications, analysts interpolate levels of continuous attributes, such as price (when the part-worths enter buyer-choice simulators). Note that the scaling (vertical axis) is common across all attributes. This enables the researcher to obtain the overall utility of any profile, which can be composed from the basic attribute levels, as the sum of the appropriate part-worths.

Applications of Conjoint Analysis

Over the past 20 years, conjoint analysis has been applied to virtually every industry sector, both in the United States and abroad. Every major marketing research firm offers this service and a few firms specialize in conjoint (and related) techniques. Exhibit 4 on page 16 lists a wide variety

Exhibit 4

Sample list of conjoint applications

Consumer nondurables
- Bar soaps
- Hair shampoos
- Carpet cleaners
- Synthetic-fiber garments
- Gasoline pricing
- Pantyhose
- Lawn chemicals

Financial services
- Branch bank services
- Auto insurance policies
- Health insurance policies
- Credit card features
- Consumer discount cards
- Auto retailing facilities
- High-tech maintenance service

Industrial goods
- Copying machines
- Printing equipment
- Facsimile transmissions
- Data transmission
- Portable computer terminals
- Personal computer design

Other products
- Automotive styling
- Automobile and truck tires
- Car batteries
- Ethical drugs
- Toasters/ovens
- Cameras

Apartment design

Other services
- Car rental agencies
- Telephone services and pricing
- Employment agencies
- Information retrieval services
- Medical laboratories
- Hotel design

Transportation
- Domestic airlines
- Transcontinental airlines
- Passenger train operations
- Freight train operations
- International Air Transportation Association
- Electric car design

of conjoint applications, ranging from consumer nondurables to large complex industrial machinery.

Designing bar soaps: In a consumer products study conducted almost 25 years ago for the laboratory and marketing personnel of a large, diversified soap manufacturer, researchers related the psychological images of physical characteristics of actual bars of soap to end-use appropriateness. Although the designing of a bar of soap (by varying weight, size, shape, color, fragrance type and intensity, surface feel, and so on) might seem like a mundane exercise, the extent of industry knowledge about the importance of such imagery was woefully meager.

The researchers formulated actual bars of soap in which color, type of fragrance, and intensity of fragrance were constructed according to a factorial design. All other characteristics of the soap were held constant. Respondents examined the soaps and assigned each bar to the end use that they felt best matched its characteristics: moisturizing facial soap, deep-cleaning soap for oily skin, women's deodorant soap, or men's deodorant soap. The data were then analyzed using conjoint analysis, which led to a set of psychophysical functions for each of the physical characteristics.

The study showed that type of fragrance was the most important physical variable contributing to end-use appropriateness. Rather surprisingly,

the type of fragrance (medicinal) and color (blue) that appeared best suited for a man's deodorant soap also were found to be best for the deep-cleaning soap. Deep-cleaning soap had previously been classified, for marketing purposes, as a facial soap and floral fragrances predominated. Fragrance intensity, however, played a relatively minor role as a consumer cue for distinguishing between different end uses.

New product concept descriptions: In many product classes—such as automobiles, houses, office machines, and computers—the possible design factors are myriad and expensive to vary physically for evaluation by the buying public. In cases such as these, the researcher usually resorts to verbalized and/or pictorial descriptions of the principal attributes of interest.

In an early application of conjoint analysis, researchers looking into automobile preferences found that gas mileage and country of manufacture were highly important attributes in respondent evaluations of car profiles. Somewhat surprising, however, was the finding that even large-car owners (and those contemplating the purchase of a large car) were more concerned with gas economy than owners of that type of car had been historically. Thus, while fully expecting to get fewer miles per gallon than they could get in compact cars, they felt quite strongly that the car should be economical compared with others in its size class.

Service descriptions: One of the most interesting application areas for conjoint analysis is in services. As a case in point, a large-scale study of consumer evaluations of airline services was conducted in which part-worths were developed for some 25 different service attributes such as on-ground services, in-flight services, decor of cabins and seats, scheduling, routing, and price. Moreover, each part-worth was developed on a route (city-pair) and purpose-of-trip basis.

As might be expected, the part-worth functions for each of the various types of airline service differed according to the length and purpose of the flight. However, in addition to obtaining consumers' evaluations of service profiles, the researchers also obtained information about respondents' perceptions of each airline on each of the service attributes for which they were given a choice.

These two major pieces of information provided the principal basis for developing a buyer simulation of airline services over all major traffic routes. The purpose of the simulation was to estimate the effect on share of choices that a change in the service configuration of the sponsor's services would have, route by route, if competitors did not follow suit. Later, the sponsor used the simulator to examine the effect of assumed retaliatory actions by its competitors. A procedure was also designed to update the model's parameters periodically by the collection of new field data.

Each new service configuration was evaluated against a base-period configuration. In addition, the simulator showed which competing airlines would lose business and which would gain business under various changes in perceived service levels. Thus, in addition to single, ad hoc studies, conjoint analysis was used to monitor (via simulation) consumer imagery and preference evaluations over time.

'Really' New Products

One of the most difficult research problems entails the development of product concept testing techniques for "really new products." Newness, of course, is a relative term. Typically, a really new product is one with which the consumer has no experience and finds it difficult to visualize what the experience would be like. The researcher must apply procedures that bridge the gap between current experience and how the new experience will look and feel.

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Researchers often employ learning aids, metaphors, and visual bridges from the familiar to the less familiar. For example, if the product concept is an electric car, researchers search for parallels (e.g., miles between battery charges vs. gas mileage) that the respondent can understand. We were involved in the development of a really new service, called EZPass, where particular attention had to be paid to respondent "education" as a prelude to obtaining attribute-level preference for the new service.

The EZPass Conjoint Study

In the Spring of 1992, a task force was formed among executives of seven regional transportation agencies in the New York-New Jersey area. The mission of the task force was to investigate the feasibility and desirability of adopting electronic toll collection (ETC) for the interregional road-

ways of the area. Electronic toll collection consists of providing commuters with small transceivers (tags) that emit a tuned radio signal. Receivers placed at toll booths are able to receive the radio signal and identify the commuter associated with the particular signal. Commuters establish ETC accounts that are debited for each use of a toll-based roadway or facility, thus eliminating the need for the commuter to pay by cash or token. Because the radio signal can be read from a car in motion, ETC can reduce traffic jams at toll plazas by allowing tag holders to pass through at moderate speeds.

It became obvious that it would be necessary somehow to "demonstrate" a nonexistent service.

At the time the New York/New Jersey agencies were studying the service, electronic toll collection was already being successfully used in Texas and Louisiana. Even though several of the agencies had individually considered implementing ETC, they recognized that independent adoption would fall far short of the potential benefits achievable with an integrated interregional system.

The task force was most interested in identifying the ideal configuration of service attributes for each agency's commuters, and determining how similar or different these configurations might be across agencies. The task force identified a lengthy list of attributes that was ultimately culled to seven questions:

- How many accounts are necessary/what statements will be received?
- How and where one pays for EZPass?
- What lanes are available for use and how they are controlled?
- Is the tag is transferable to other vehicles?
- What is the price of the tag and possible service charge?
- What is the price of the toll with an EZPass tag?
- What are other possible uses for the EZPass tag (airport parking, gasoline purchases)?

From a marketing researcher's perspective, it also seemed important to assess commuter demand for the service. However, the task force was not convinced that it needed a projection of demand because it was committed to implementing ETC regardless of initial commuter acceptance. The task force considered its principal role to be investigating commuters' preferences for how the service should be configured *ideally*.

Representatives from the Port Authority of New York and New Jersey (who played a leadership role in the task force's investigation) recognized that setting priorities for service attributes and investigating level-preferences within attributes were issues uniquely addressable by conjoint analysis. Particularly important was the estimation of differences in part-worths (from commuters' perspectives) of attribute levels that incurred substantially different operating costs.

Creating a Virtual Traffic Jam

Allowing area commuters to help specify *how* the service should be configured was an appropriate way to make good decisions, but it also raised a perplexing problem: How could commuters be made familiar enough with the service concept that they could make meaningful choices between different configuration scenarios? No simple metaphorical examples were available, and the very mechanism of the service—the radio transceivers—was not in common use for any other products. Yet, each of the attributes to be tested required a knowledgeable customer to make realistic trade-offs.

It became obvious to the task force and the research team that it would be necessary somehow to "demonstrate" a nonexistent service. Some type of real-time demonstration could possibly have been created at a central location testing facility, but this would have been expensive to develop. More important, the size of the sample to be interviewed (3,000+) indicated that a real-time demonstration, administered to individual participants, would have been exceptionally time-consuming.

Instead, a unique medium for the demonstration was adopted. The high penetration of VCRs in the New York/New Jersey metropolitan area suggested that a videotaped demonstration might be used to describe the service to commuters. It was proposed that a videotape be produced that linked the service to a major (and dramatic) problem—traffic congestion—and then demonstrated exactly how the service would operate. The resulting 11-minute "infomercial" videotape became an important component of the research process.

Establishing Respondent Segments

Sampling for the study was another logistical challenge. Each participating agency desired a representative sample of their commuters be included in the study. And they *also* wanted a representative sample of customers from each of the facilities that they operated. (For example, the Port Authority operates the George Washington Bridge and the Holland and Lincoln Tunnels—all trans-Hudson facilities—as well as three bridges to Staten Island.) Sub-samples of commuters of each facility needed to be included in the study so that preferences of each facility's commuters, ultimately, could be read at the facility level.

As might be imagined, not all agencies knew who their customers were at each of their facilities. Ultimately, a sampling frame was established for each agency by combining those commuters, if any, known to each agency (a relatively small number) with commuters identified through random digit dialing (RDD) within the area as daily users of one or more of the facilities within the study.

Study Design

The adopted study design entailed a phone-mail-phone sequence. Commuters using each agency's roadway facilities were identified through RDD; when usage of one or more of the facilities by a member of the household was confirmed, an attempt was made to recruit this member into the study sample. Each recruited commuter was promised a survey kit in the mail, and commuters who were already known to several of the agencies were contacted to verify their mailing address and secure their willingness to participate.

The survey kit was designed to appear as "friendly" as possible. It contained the demonstration videotape, a self-administered questionnaire (with a glossary of all terms used), and a small set of full profile scenarios describing different ways that ETC might be used. Although there were actually 28,800 different possible combinations of feature levels, the fractional factorial design reduced this huge number to a much more manageable set of 49 profile cards. Still, split-sampling had to be used to limit the number of cards that any individual participant had to evaluate. The final configuration had each participant evaluate seven cards with an eighth, base-level calibration card also included. (The purpose of this eighth card was to allow the preferences for the other seven cards to be aligned properly with preferences of every other participant.)

Exhibit 5

Importance of EZPass features

Feature	Importance rating
What lanes are available for EZPass and how they are controlled	21%
Price of toll with EZPass	18%
How and where you pay for EZPass	17%
Price of EZPass tag and any service charges	15%
Number of accounts necessary/number of statements received for multiple facility usage	13%
Is the EZPass tag transferable?	12%
Other potential uses for the EZPass tag	4%
	100%

Interview Sequence

The sequence of the self-administered interview was clearly identified for participants. They were first asked to view the videotape. Then they were asked to complete the self-administered questionnaire and sort the full-profile scenarios in order of preference. Finally, they were given the option of either waiting to be contacted by the telephone interviewing staff or calling an 800 number at their convenience to complete the interview. A modest incentive was offered to induce them to complete the process speedily.

An in-tab sample of 3,250 respondents was needed, and the targeted interviews were easily completed within three weeks. Of the 6,500 commuters recruited and sent kits, 3,369 were ultimately interviewed.

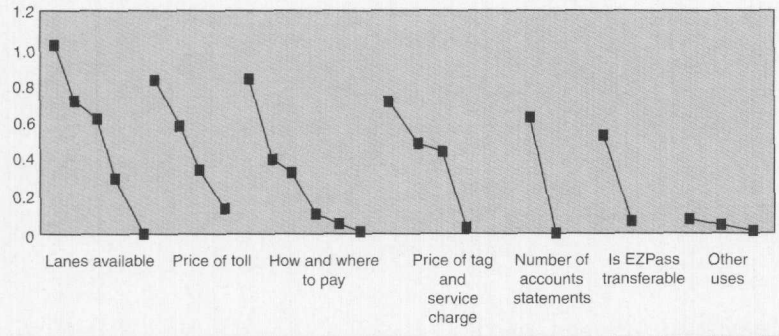
Analysis and Findings

The sponsoring agencies worked with the research team not only in specifying the attributes but, more importantly, in discussing possible levels for each attribute. The very act of defining combinations of attributes and attribute levels for the research helped the task force members reconcile some of their initial biases for or against particular levels of certain attributes. As the survey results were reported, several of the empirically identified preferred attribute-level part-worths agreed with those anticipated by the study designers, but this provided independent confirmation.

Attribute importance: The general order of derived importance for the attributes is shown in Exhibit 5, though the results differed slightly by

Exhibit 6

Average part-worths from conjoint model



agency and by facility. The number of lanes available for EZPass and the control of these lanes was of primary importance—rated even higher than the cost of the service. This is interesting because some of the levels of the lanes-available feature would have considerably diminished the potential value of EZPass, and this was obviously understood by commuters. A pre-research focus of concern, the price of the EZPass tag and associated service charges, was seen to be less important to commuters. The least important of all of the attributes was alternative uses for the electronic tag. Commuters' clear message was to focus the technology on its main advantage of easier commuting—don't dilute it with fringe benefits.

Each attribute had between two and six options or levels. Not all of these were "monotonic attributes," so it was not easy to anticipate the commuter's preference ordering of the levels for all attributes. On features for which attribute-level ordering could be anticipated (e.g., a 20% discount would be preferred to a 10% discount), there were still some learning opportunities, namely, how *much* more the more desired levels would be favored over the less desired levels. Exhibit 6 depicts the range of part-worth judgments. Notice that pricing and service charges display less variability than do the lanes and control features.

Paradoxically, a private-sector marketer's dream prompted considerable uneasiness among task force members.

Addressing Management's Concerns

Initially, participating agencies were promised a computer simulation model so they could experiment with different configurations by specific facility. Diskettes containing the calculated part-worth utilities for each facility, as well as Green and Krieger's SIMPRO choice simulation program, were provided to each agency. These diskettes allowed managers to review probable "demand" for the EZPass service configured in every possible feature-by-feature combination among each agency's commuters. In this way, an agency could estimate the loss or gain of commuter approval by varying the levels of any and all features.

As task force members became more comfortable with the attribute levels, they (belatedly) began to recognize the estimation of overall demand by commuters as an important finding. This had earlier been downplayed in the specification of the research. The expense of setting up numerous traffic lanes at hundreds of toll plazas as well as the expense of ordering pre-specified quantities of electronic tags from the manufacturer made task force members eager for better demand estimates.

Because the research team believed from the start that a demand forecast would be important, some data external to the conjoint model had also been collected. These verbal "likelihood of using EZPass" judgments provided a second option for estimating demand above and beyond the "market share" prediction of the simulation model.

But both approaches produced what appeared to be very high "take rates." Even though the research team tried several different calibrations, the simulator continued to predict that 38%-50% of various agencies' commuters would adopt EZPass. Using only the "top-box" response to the verbal likelihood scale lowered the estimate, but still yielded an "uncomfortably high" 25%-35%. Paradoxically, a private-sector marketer's dream prompted considerable uneasiness among task force members. The research team was repeatedly asked to "factor down the take rate."

In addition, even though the primary research focus had earlier been on "commuter adoption," the issue of tollway "transactions" was ultimately posed as an alternative unit of analysis. This need was partially addressed by weighting each consumer's answers by his or her known frequency of travel.

The Situation Four Years Later

Although commuters expressed overwhelming enthusiasm for the service, the implementation of EZPass has encountered more hurdles than had been envisioned. Four years after the survey, only

three of the seven original agencies have implemented EZPass. Five agencies—two more than those who supported this research—are expected to initiate the service within the next two years, making EZPass the standard from New York state through Pennsylvania. At the Verrazano-Narrows Bridge in New York City, one of the first facilities to adopt the service, EZPass customers reportedly constitute 40% of the rush-hour traffic after only six months of operation. The 40% figure is not far off the take rate predicted in the study—and is considerably higher than that anticipated by agency personnel. And, the 38%-50% adoption rate predicted by the model was predicated on a fully regional, multi-agency implementation of EZPass, which is still at least two years in the future.

The Bottom Line

As we have tried to illustrate, conjoint analysis adds a certain element of customization to the attributes and levels of a specific project. Costs per project generally exceed (sometimes by a wide margin) those of traditional product concept testing. But so does the detail of information related to the questions of optimal product design and pricing strategy. Then, too, in the case of high-tech products and really new products/services, conjoint analysis has few—if any—competitors. (As an example, imagine attempting to use traditional concept testing in the EZPass application.)

In the 1990s, conjoint analysis has moved from the market research manager's desk to the corporate board room. Today's leading consulting firms, such as McKinsey, BCG, Andersen Consulting, Bain, and Mercer, are no strangers to this set of techniques. Not only is the methodology still evolving and improving, but business consultants are also beginning to appreciate the role that conjoint methods can play in higher-level market strategy and customer-driven product and service design.

Management reaction to conjoint analysis as a sophisticated type of concept testing has been highly positive, particularly in high-stakes decisions where the product/service context reflects complex issues. Marketing researchers clearly need to develop competence in these methods and exploit their potential for strategic product or service positioning and segmentation. ■

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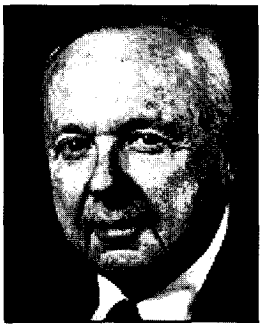

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