Conjoint Analysis on the Internet

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Client Project Background Report

How can we optimize market penetration and maximize revenue in a rapidly changing environment with several new competitors poised to enter the industry? A major telecommunications company asked this question with regard to its high-speed Internet access product. As such, it was necessary to understand consumer demand and price elasticity under various pricing and product configurations.

There were several components that comprised the total cost of the high-speed Internet access service. They included installation costs, equipment costs and the monthly service cost. It was also important to understand the impact of brand on consumer demand.

The issue at hand for the telecommunications company was to develop an intermediate pricing strategy for its consumer segment. The pricing strategy was to be developed as part of a marketing strategy that focused on "conversion" of current on-line subscribers to a high-speed service as opposed to acquisition of "new" on-line subscribers. Therefore, current dial-up subscribers were the primary audience of interest for the study. While non-subscribers were also of interest, they presented a longer-term target segment. Given the rapidly changing landscape of the Internet industry, it was determined that research would be conducted with this consumer group at a later date.

Further, it was necessary for the research to assess perceptions of consumers who reside within the company's service area, where the high-speed Internet access service was available, while excluding current customers.

Vendor Field Report

The measurement objectives clearly called for some sort of conjoint analysis. Because there were relatively few attributes and because pricing was a key objective, we focused on either full profile conjoint (Sawtooth Software's CVA™) or Choice-based Conjoint (Sawtooth Software's CBC™). The client's budget was modest; there were only four weeks until the analyzed findings were due. The stimuli were sufficiently complex that telephone interviewing would not be possible. Computer assisted self-administered interviews (CASI) were considered but there were not qualified field agencies located within all of the six geographic required by the client. Further the budget would not permit recruiting current Internet users for central location interviews.

The Internet was a logical means to interview people about an Internet service. So we choose to implement the study using Sawtooth Software's CVA Internet Module. It was a learning experience for us and we would like to describe twelve critical steps we identified during the project.

1. Use Sawtooth Software's *CVA System Internet Module*™. The Windows® system uses a template, fill-in-the-blank approach that makes questionnaire development very straightforward (easier to program). We used an Internet service provider (ISP) that gave us the permissions necessary to run the interview on its server. (Some ISPs do not permit users to run programs or to collect and store data on their servers.)
2. Study a universe appropriate for a web-based survey. Despite higher claimed estimates, real web access penetration is only 20%.
3. Obtain an appropriate sample. In our recent study, we focused on only 5% of ZIP codes; these reflected the geographic areas in which our client would soon launch its service. Survey Sampling (www.ssisamples.com) was able to provide names and phone numbers of Internet subscribers within our targeted areas.
4. Recruit and screen participants by telephone. Recruiting can be accomplished by a brief CATI survey, screening potential respondents for Internet access along with topical and security screens. A successful recruit resulted in verifying the respondent's name and obtaining e-mail address. Aiming for a final survey sample of 500, POPULUS obtained the names and e-mail addresses of 1,000 qualified respondents, assuming 50% cooperation for a completed interview.
5. Train interviewers to properly record an e-mail address. Even the best of interviewers are accustomed to record open-end answers for meaning rather than precise wording. Interviewers must be instructed to read back an e-mail address, character by character.
6. Send personalized e-mails within 24 hours to each recruited respondent. Otherwise people can quickly forget what they've promised to do.
7. Create a unique password allowing each respondent access to the web site. The Sawtooth CVA Internet module allows for the creation passwords. Respondents use the password to begin the survey. If necessary, a respondent can leave the survey and use the password to resume the survey at a later time. However, once a respondent had completed the survey, the password is rendered inoperable, preventing repeated access to the survey site.
8. Use an e-mail package such as MailKing® (http://www.mailking.com), a software program used to send personalized e-mail messages to each respondent. Each e-mail message should contain a hyper link to the survey web site and the respondent's unique password. Each morning, simply load the results of the previous evening's recruiting into a spreadsheet, add a password to each record, and MailKing does the rest.
9. Offer a generous incentive. In our case, respondents were informed that of those who completed the Web survey, one person from each of the six service area cells would be randomly selected to receive a check for $100. Notify winners via e-mail.

10. Assume a 50% cooperation rate. POPULUS sent out 1,057 e-mail messages along with follow-up messages. Of these, 162 (15%) were returned as undeliverable. Completed surveys were obtained from 482 respondents within two weeks of the first e-mail mailing.
11. Monitor the site regularly: daily, even hourly. It's easy to keep clients up-to-date regarding the number of completed web site interviews.
12. Download interim data frequently. Use the Sawtooth DOS CVA program for the conjoint analysis and any statistical package for the rest of the data. Schedule the top-line meeting with your client the day after the survey site is closed.

The project was completed on time and on budget. The client's only concern was a reluctance to utilize the CVA simulator. After some initial resistance was dispelled, the program and data files were zipped up, appended to an e-mail, and installed five minutes later.

Client Analytical Report

Personnel changes at the communications company resulted in having to bring a new manager up to speed on the project. The change came after the data collection and initial topline findings for the study were presented to the internal group who sponsored the study.

At first, the new manager relied heavily on POPULUS to field additional requests for simulations. The Sawtooth CVA simulator is very different than other simulators that had been used at the company to analyze conjoint results. The other simulators the manager was familiar with were mainly Excel spreadsheets where each scenario is entered into a very friendly front-end one at a time and the result calculated. Once trained though, he found that the main benefit of the Sawtooth CVA simulator was that it allowed the running of multiple (up to 30) scenarios at once. Given the volume of simulation requests he received for the project that function became very valuable. The only problem he encountered with the simulator was the inability to print the results of a simulation batch directly after the simulation was run (i.e. the results file had to be first saved to a directory, and then opened in Wordpad, and then printed). Additionally, the results had to be re-entered into a spreadsheet for purchase intent discounting—a step not needed with other simulators he used.

Aside from the minor mechanics of running the simulations, the data was well received and used by various organizations in the company. The data become part of a larger model (using Crystal Ball software) being constructed to optimize the pricing configuration for the high speed data product. In conjunction with internal data on costs to serve, assumptions about the population, retail alliances and other factors a model was built that allowed the sponsor group to configure its pricing to maximize penetration and revenue while maintaining a control on costs.

While some at the company were skeptical of online methodology (due to concerns about representativeness), the sponsoring group for this project expected an online component for the research due to the target audience for the product. The initial

telephone recruit combined with 48% response rate served to allay any concerns others may have had. In fact, the telephone recruit was a new twist in the way online research had previously been done by the communications company. For the most part, prior online studies used e-mail to customers or a syndicated online panel to generate traffic to a survey web site. The telephone recruit to an online site will probably become a model for future studies—for this product line—that target online consumers beyond the company's current customers.