

Getting Closer to Your Customers: Using Online Survey Panels to Support Program Design and Implementation

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Abstract

Utilities routinely conduct customer research to assess customer satisfaction, discover their opinions, and understand their behavior. Customer research also is critical to support the development of new utility services and pricing options. This is typically accomplished using traditional telephone surveys. However, with the advent of screening technologies such as caller ID, it is becoming increasingly difficult to secure a representative sample via the telephone. And as more customers move away from landlines and only use cell phones, telephone interviewing becomes even more challenging.

One approach for obtaining customer feedback quickly is through an online survey panel. Online survey panels are widely used in other industries, particularly consumer goods, to capture customer feedback regarding product features, pricing, and messaging. The energy industry, however, lacked experience with this type of market research and was reluctant to adopt this approach. In late 2006, PPL Electric Utilities joined with Energy Insights to develop an online survey panel. Since that time, eight other utilities have adopted the approach and many others are currently evaluating it.

Introduction

Utilities routinely conduct customer research to assess customer satisfaction, discover their opinions, and understand their behavior. Customer research also is critical to support the development of new utility services and pricing options. This is typically accomplished using traditional telephone surveys. However, with the advent of screening technologies such as caller ID and the decision by some utilities not to call customers on no-call lists (even though this is not expressly prohibited), it is becoming increasingly difficult to secure a representative sample via the telephone. And as more customers move away from landlines and only use cell phones, telephone interviewing becomes even more challenging.

In recent years, online survey panels emerged as a cost-effective approach for tapping into customer opinions on an ongoing basis – particularly because most households now have email and internet access. Other industries, most notably consumer products, have more experience using online panel for their consumer research and have become comfortable with them. Utilities, however, have not rushed to develop their own panels, the primary reason being that they have the obligation to serve all customers and therefore have concerns about comprehensive customer representation, not just customers with internet access. This called for survey approaches with a wider range. In the past, mail and telephone surveys were the best choice, but lately these approaches have shown their limitations. Although the issue of representation with online surveys still exists, internet penetration at 70 percent and increasing in many areas helps to alleviate the concern.

Since PPL started its panel with Energy Insights, eight other utilities are at various stages of development of their own research panels. Currently, the majority of the panels are residential, but we are now embarking on implementing business panels at three utilities. Since these panels are still in the beginning stages, the majority of this report covers residential. The approach outlined in this report for

residential panels is easily applied to business panels. Obviously there are some differences between the two types of panels, which we describe at the end of this report.

A Test Drive

In 2006, PPL's initiatives to develop new programs and services resulted in a growing need for timely, cost-effective customer research. The marketing team felt it could develop a proprietary panel that represented most demographic groups in the territory and could be weighted to represent the full population. At the same time, the panel would allow for collecting customer information more frequently at lower cost per survey. In fact, PPL wanted to survey its panel at least once a month and contracted with Energy Insights to build and maintain its own "Rapid Response Survey Panel." Since PPL's panel started in January 2007, eight other utilities identified a need for this type of research and are at various stages of implementation of their own rapid response survey panels.

Research Objectives

The key research objectives were to

- Gather primary data and customer opinions to support internal client needs;
- Develop a mechanism to track trends in customer preferences;
- Acquire customer input quickly on a growing list of issues;
- Better understand the "pros and cons" of electronic panels as research moved away from the telephone; and
- Reach audiences that are hard to contact by telephone, including young adults and high-income, highly educated customers – the group that PPL has identified as generally less satisfied with its services and other utilities have identified as the target market for various programs and services.

Panel Recruitment

Each panel is launched with a direct-mail campaign: The utility and Energy Insights send out a "pre-test" of a few thousand invitations to join the panel, using the utility's letterhead, window envelopes and the utility's return address. The letter includes a personalized message to the customer, a link to the signup page on the panel website, and a utility phone number to call for questions. Based on the response rate to the "pre-test" and the desired panel size, several thousand more letters are sent. The recruitment letter is designed to look like a bill from the utility. In our experience, the more the letter looks like a bill, the more likely the customer will open the letter and ultimately the more people will sign up for the panel. One utility tried using a non-window envelope and the recruitment rate for that pre-test mailing was significantly lower than the mailing that used window envelopes.

For PPL, which wanted to create a panel of 500 panelists, 5,000 invitations were mailed as the "pre-test." PPL experienced an incredible recruitment rate of approximately 8 percent, resulting in just under 400 panelists. The second mailing yielded additional responses, resulting in a final panel size of 672 panelists. Energy Insights recommended that PPL accept more than the target panel size of 500 due to attrition over the course of the year. For the other survey panels, recruitment rates have been more in line with what was originally anticipated, ranging from 3.5 percent to 6 percent.

During the recruitment process, the panelists enter demographic information as they sign up. This means that the responses to any individual survey during the life of the panel can be analyzed in concert with respondent characteristics.

After PPL's panel was recruited, PPL compared the composition of this random sample against a few key demographics for its service area – region, age, education, and income. The panel reflected PPL's population demographics fairly well, especially around region and age. As expected, it slightly under-represented the low-income, low-education, and minority segments. This situation is not unusual in polling, and analysts can "weight" the individual responses to more accurately reflect the customer population.

Incentives

Since panelists are queried repeatedly over a 12-month period, Energy Insights recommends using incentives to motivate panelists suffering from survey fatigue. The panelists earn points for each survey they complete, and when they reach a certain level, they may redeem their points for rewards or continue to accrue points for even larger rewards. Each utility tailors the reward incentives to their own budget and preferences. Incentives used to date include Restaurant.com coupons, energy-efficiency kits, premier energy-efficiency kits, Amazon.com gift certificates, drawings for larger rewards, and donations to select charities.

Response Rates

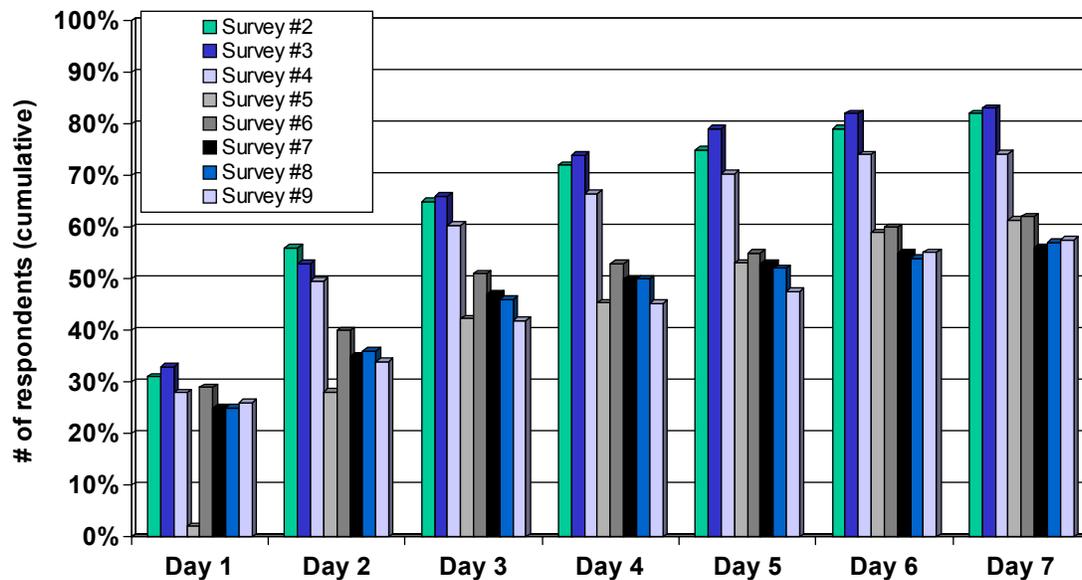
Originally, Energy Insights expected that between 30 and 40 percent of panelists would respond to each survey request. However, the utilities and Energy Insights have been pleasantly surprised with response rates that range from 60 percent to 85 percent. For PPL, the average response rate was 67 percent after 9 surveys. In addition to the high overall response rate, more than half the responses occur by the third day of being in the field. With the larger panel size and higher than expected response rate, PPL has been able to accumulate a rich database with almost 500 responses per survey – essentially equivalent to the targeted panel size.

Response rates vary across surveys. In general, longer surveys will have lower response rates, so it is best to keep surveys to within 5 to 10 minutes. If the survey asks several questions about one topic, such as a survey about appliances and fixtures, we suggest breaking it up into smaller pieces. PPL had a saturation survey where they wanted to ask about the type of heating and cooling system, the number of portable heaters, window air conditioning units, and fans, the number and type of lighting fixtures and the presence and use of home electronic equipment. In order to ease respondent burden, they split the survey into 2 surveys. The first survey addressed heating, cooling and lighting. In the second survey, they asked about home electronics.

As expected the response rate drops off somewhat over time, but as shown in Figure 1, the response rates are still significantly higher than the 30-40 percent originally anticipated. And things seem to have stabilized somewhat, with most of the decrease in response rate happening by the fifth survey.

Figure 1 shows the PPL response rates across the life (so far) of the panel. The x-axis represents the number of days after the survey is sent to participants.

Figure 1: PPL Rapid Response Survey response rates across surveys and days



Customers are clearly engaged and anxious to participate. As part of its fourth survey, PPL asked panelists about their experiences with the surveys, and the responses were overwhelmingly positive. When asked how satisfied they are with their experience on the panel, 65 percent of panelists gave a response of 8 or higher on a 10-point scale, and the average score overall was 8.1. In response to a question regarding why they chose to participate in the panel, 61 percent said they are interested in energy issues, 46 percent want to help PPL, and 40 percent want to help make changes in the utility industry (multiple responses were allowed).

Drivers for Using Rapid Response Survey Panels

Demand Side Management

Utilities around the country are aggressively pursuing new energy-efficiency and demand response programs. In recent years, market research efforts focused largely on customer satisfaction, so there is a lack of current data to support program design. Proprietary online survey panels are a good option for quickly gathering customer preferences on program elements.

PPL launched its Rapid Response Survey Panel in January 2007, just as the company was planning to file for a rate increase. The company was embracing the need for more energy-efficiency programs and wanted to gauge the interest in various options and programs. To include these programs in the rate filing, PPL needed customer input fast. The survey found high levels of customer interest in rebates for energy-efficient equipment and compact fluorescent light bulbs, as well as demand side management education and time-of-use rates. With the panel providing the ability to collect survey results in less than a week, PPL developed programs preferred by its customers and included them in its rate filing.

A large utility in the Pacific Northwest sought to set up a panel to explore customer feedback on in-home display devices. The ultimate goal was to develop a business case that identified the optimal investment in the in-home display aspect of their advanced metering infrastructure (AMI). The surveys sought to glean the most valued benefits in-home displays enabled for residential customers.

Some utilities get entrenched in time-of-use (TOU) and critical peak pricing (CPP) rate design before considering how customers may react to these designs. Energy Insights worked with a large IOU in Southern California to sort customer preferences for various TOU and CPP rate options.

Increasing Revenue

A mid-western IOU is recruiting and using panels to conduct a needs-based segmentation of its entire residential customer base. This segmentation will then drive its approach to new product and service development, design, and communication. The initial surveys sent to the panel will be designed to identify the segmentation that will enable the utility to better target products and services. Subsequent surveys will take the pulse of segments on preferences for various product service ideas. The impact should be higher penetration results for these new products and services.

Access to Hard-to-Reach Customers

Recruiting online panels captured a previously hard-to-reach customer segment: higher-income and better-educated residential customers. This group does not tend to answer the phone, but has access to and uses computers. Since this is an important customer segment, especially for new products and services, using online panels to reach this segment will be a growing driver for utilities. Several utilities have identified the inability to reach all market segments with their current survey methods as a driver to start a panel.

A utility in the Pacific Northwest is using the panel to test interest in purchasing utility gift cards to give to friends and family, as well as to donate to charity. They have identified the higher income and better-educated segment as the largest user of the program. Using the panel, the utility is able to gauge interest, explore how the gift cards would be used, and preferences in ways to purchase the gift cards.

Timing

The need to obtain feedback on a variety of customer satisfaction issues close in time to key events has been noted as an important driver. If a utility can gather opinions close in time to negative publicity, or positive announcements, then the data gathered should more accurately reflect how opinions are shaped by those events.

PPL used the panel to ask about customer reaction to the Governor's Energy Independence Strategy for Pennsylvania. His plan includes a Systems Benefit Charge (SBC) to help fund clean energy activities in Pennsylvania. The SBC would include a very small charge on customers monthly electric bill – an average of about 45 cents per month. The survey was used to gauge customer reaction to the Governor's plan and to provide feedback on what types of activities customers would like to see funded with the SBC.

Quick Turnaround

An increasing number of utility market research departments are dealing with internal clients that need customer data in a time frame that is impossible without online access to customers. For some utilities, the internal client is asking for assistance so late in the relevant time cycle that they need results quickly in order for the effort to be worthwhile. At other utilities, expectations are simply mounting for market research to deliver results in a shorter time frame.

For example, PPL decided to set up a residential panel in the face of increasing demands from internal clients for faster results. While they were still recruiting the panel, one internal client came to market research needing customer data to support a rate case filing. Seeking to add direct customer feedback

on energy efficiency program preferences and time-of-use pricing options, the market research team stopped recruiting, set up the panel with the recruits they had at the time (672) and fielded the survey in order to have results in time for the filing two weeks later. This would not have been possible without the online customer panel in place (or at least already substantially recruited).

In subsequent surveys, this same utility tells the story of internal clients huddling around the computer to monitor results in real time as data comes in just days after fielding surveys. This shows a desire, if not a need, on the part of internal clients to see results faster than ever before. Online panels can deliver completed survey results in 5 to 10 business days.

Stretched Resources

Depending on executive management's vision, market research may or may not be well resourced. Where it is not, the current increase in need to gather the voice of the customer to help shape programs and services puts a squeeze on limited market research resources. Even simply the project management requirements for outsourcing single surveys from time to time can cause constraints.

One Midwestern IOU detailed how important surveys were not getting out into the field. The utility's market research department was still conducting its regular surveys, but new requests to gather customer feedback on critical new product and service development ideas kept coming up. These requests were lingering, undone. The turnkey nature of these Rapid Response Survey Panels appealed to the team so they could avoid internal resource constraints and show immediate progress. In addition, having a panel set up for subsequent survey needs avoided facing the constraints each time additional requests arose.

Survey Topics

Based on the business needs underlying these drivers, each utility has developed a list of survey topics to cover using the rapid response survey panel. The following list covers the survey topics that have been fielded for the various utilities through December 2007.

1. Interest in energy efficiency programs
2. Interest in online energy information for their household
3. Support for local energy utility taking a more active role in environmental issues
4. Support for local utility economic development activities
5. Reaction to new TV commercials for the local utility
6. Satisfaction with current communication with local utility
7. Awareness of and reaction to various local utility names and brands
8. Reaction to account information available on the local utility website
9. Concern about climate change
10. Reaction to rising electric prices
11. Interest in online outage information
12. Interest in including energy use information on monthly bills
13. Interest in in-home energy use information
14. AMI—Customer interest in programs where utility control appliances
15. Interest in participating in demand response programs
16. Community involvement – What customers want their utility to do to benefit the community.
17. The usefulness and value of online energy efficiency information and tools
18. Increasing adoption of online bill payment
19. Feedback on naming new products and services
20. Rating customer service and outage communications
21. Interest in utility gift card program

22. Appliance saturation

Auxiliary Data

Some of the utilities have extracted billing data for the panel participants as part of the startup process. This allows the utilities to assess how well the energy use of panel participants matches the general customer population and enables analysis of the panel responses in the context of customer energy consumption, rates, and billing amounts. This can also answer questions about how high-use customers differ from low-use customers in their attitudes and behaviors, as well as enabling consumption analysis such as conditional demand studies to estimate individual appliance energy use.

One utility has gone a step further, and is using their AMI system to collect interval data for all panel participants. This will allow for analysis not only of total energy use, but also of energy use across time and individual peak demands as they relate to survey responses.

Strengths and Weaknesses

There are some limitations to using proprietary online survey panels, but overall, the market research teams at the utilities are pleased with the approach. Although it has minor weaknesses, its strengths beat or complement telephone interviews. Moreover, because the majority of the cost is up front, the cost per survey is extremely low. Another plus is the ability to learn more about the utility's customers while learning a new methodology that is becoming state-of-the-art.

The pros and cons of online surveys include:

Pros

- Allows you to survey your own customers exclusively on your own topics.
- Offers quick turnaround and lower cost than other approaches.
- May ease access to traditionally hard-to-reach populations (such as the younger, more affluent, better-educated groups).
- More sophisticated and interactive questions than with telephone/mail surveys.
- Enables visually displaying stimulus material and reduces data entry error.
- More convenient for respondents.
- More consistent responses across multiple surveys.
- Allows for more advanced analysis such as conjoint analysis.
- Ability to compare and correlate individuals' responses to different surveys.

Cons

- Excludes customers without internet access, which may under-represent some segments of the population, such as the elderly and poor).
- Respondents are more likely to manipulate the qualifying criteria in order to join the panel.
- Panelists may view this as an opportunity for income, if the rewards are attractive.
- Further probing on individual questions can be easier in a telephone survey.
- Overuse may generate skewed responses due to familiarity.

PPL's market research team has promoted the panel project through all levels of the organization and many departments have expressed interest, particularly the executive management team. In addition to being cost-effective, management has found survey findings to be timely for regulatory matters and other hot issues where customer input is critical. With completed survey results within a week, the survey findings enable business managers to make quick decisions with customer input, and have the potential to validate or change the utility's position on many business initiatives.

Business Panels

The approach used for creating residential online panels can also be applied to establish a business panel to gain insight into the commercial or industrial customer's mindset, with a few changes. The recruitment will start with a direct-mail campaign sent to the person that opens the utility bill. The letter specifically asks that the letter be handed to the person that is knowledgeable about the day-to-day operations and energy requirements for the facility. If the person that receives the letter is not the correct person they are encouraged to give the letter to the appropriate person. The appropriate person is once again directed to a website that has a series of screening and firmographic questions.

With small and medium business panels there is an additional hurdle of getting people to set aside the time to complete the survey. Therefore respondents receive an incentive for simply completing the screening survey. Since some companies have policies prohibiting its employees from accepting gifts of any kind, Energy Insights also offers the option of making a donation to charity in the respondent's name.

Since we are still in the startup phase of the business panels we do not have any experience with recruitment rates. However, we expect it to be about the same as residential panels when respondents are rewarded by completing the screener survey.

Once the panel is recruited, the incentives are also structured in a slightly different manner. In order to encourage continued participation the panel member is rewarded after completing a few surveys and once again with a larger reward if they complete all of the surveys. This results in a higher reward cost than with the simpler residential approach, but will provide much better ongoing response rates.

Several of the drivers for residential panels are the same for business panels, including increasing revenue, timing, quick turnaround, and stretched resources. For a business panel, the small and medium sized customers are typically the hardest to reach. A medium-sized IOU in the Midwest sought to improve communications and design of energy efficiency programs for small and medium business customers. This combined with the segment being hard to reach led them to establish a business panel.