RESPONDING TO THE SURVEY NEEDS OF BUSINESS

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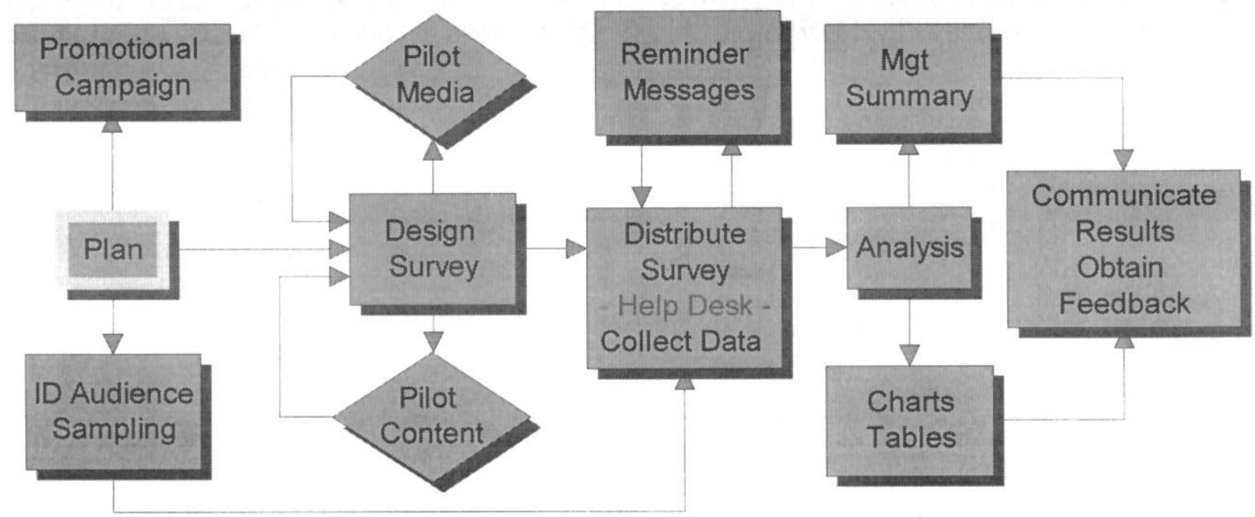
I. Introduction

Surveys come in many forms and purposes, and are typically designed to meet a specific business need. While no one-process model will precisely fit every survey, the model presented herein contains elements common to most. Any survey is just as likely to require an extra step or two, as it is to lack a component or require a variation in the project path. Obtaining accurate, reliable, and timely information is critical for making any business related decision.

II. Survey Process

A survey is a process of questions designed to elicit information from respondents on a set of topics. The Ernst & Young Survey Center begins each survey engagement with a plan to help insure a successful project, by facilitating management of items which effect delivery time, quality, and cost. We have based our plans on the methodology developed by Don Dillman and Priscilla Salant.[1] The Basic Survey Process is shown below.

Basic Survey Process



The Plan addresses the purpose, charter or mission statement, deliverables, a well-defined scope, budget, time frame, resources, and sponsorship.

The Promotional Campaign conveys information to potential respondents to encourage their survey participation. It is a critical step to motivating a response. We discuss any possible incentives or motivations for completing the survey. With the client we determine the distribution and return dates of the survey and create an announcement message when appropriate. This announcement message is communicated via appropriate media, e.g., newspaper, radio, e-mail. We begin initial discussion of a backup strategy if the response rate is unacceptably low

[1] Salant, Priscilla and Don A. Dillman. *How to Conduct Your Own Survey.* New York: John Wiley & Sons, 1994.

Correct identification of the survey audience determines the population of interest, and which individuals within the population are to be surveyed. How many of the target population to survey are influenced by such factors as:

- Sampling vs. Census,
- Level of confidence and accuracy desired,
- Type of sampling, e.g., stratified random, random, with or w/o replacement, and
- Availability of necessary target information, e.g., names, addresses, e-mail.

Sampling is a best practice in survey work for many reasons and is suggested by E&Y whenever appropriate. The business considerations are that fewer targets make it easier to follow up with non-respondents to maximize the response rate and credibility of the survey. If the client plans on repeating the survey, sampling helps maintain high response rates by reducing over-exposure to their surveys in the population. Such a practice constitutes responsible corporate behavior. There is also a cost savings associated with fewer targets to survey.

Surveys are usually designed to benchmark, obtain action items, or to obtain ideas. The different purposes influence creation of the survey instrument. Other factors to consider in survey design include:

- Content should relate to deliverables and purpose.
- Cognitive psychology: clearly worded, unambiguous questions, which do not lead or beg a politically correct answer.
- Length of survey, keeping in mind impact to response.
- Pretending to have answers to questions can serve as a check as to actionable content.

Misunderstood or misinterpreted questions yield poor data at best, and can lead to erroneous conclusions at worst. Phrasing a question so that it is clearly understood, not leading, and yielding optimal information is a skill essential to creating a quality survey instrument. We have designed and implemented a worldwide employee survey encompassing 12 countries and eight different languages for a major bank.

Our recommended plan to clients includes the conduct of a pilot. This helps refine the survey instrument by using a group of potential targets to identify troublesome areas. A pilot helps identify items, which respondents could misinterpret or find difficult to understand or answer. It can also identify items that respondents feel are redundant; topics that perhaps should be present in the survey, but currently are not; as well as determine whether answer choices are appropriate. Depending on the nature of the pilot we can also obtain an indication as to the length of time required to complete the survey and check the survey implementation logistics.

We offer several survey media for clients to choose from. We often use more than one media for a particular client. These media include:

- Hardcopy/Paper - manual data entry
- Scan Form - generic, custom OMR / OCR
- E-mail using Survey Tracker or Lotus Notes
- Internet / Intranet - with or without online reporting
- Interactive Voice Response (IVR)
- CATI - Computer Assisted Telephone Interviewing
- Face to Face / Intercept

The E&Y Survey Center helps the client determine the best medium for delivery, and plans the layout and features to be utilized. We discuss with the client the advantages and disadvantages of the various survey media and help them choose wisely. We discuss that multiple media tends to maximize the response rate. With the client we suggest colors, fonts, graphics, and layout considerations. As part of the consultation we help identify and suggest appropriate instruction sets; and features, e.g., security, edit checking for electronic media.

III. Client Interaction

Often in our interactions with clients we need to dispel common misconceptions about surveys for our clients to reap maximum benefit. These include the concern that you need to survey the entire audience to get really good results. We explain that surveying everyone is often less accurate than obtaining a high response rate from a representative random sample.

With smaller samples you can focus on increasing the response rate by using reminder messages. We have found that reminder messages typically increase the response rates by 20 to 40 percent. They are well worth the effort and several reminders may be warranted.

We work with the client to determine a schedule for reminders and the content of the reminder message(s), and any signee(s). Depending on the survey mode the reminder messages may be administered using a different media: post cards, e-mail, phone, voice mail, fax, Fed-Ex. We often consider redistribution of the survey to non-respondents with a revised cover letter and a CATI follow-up with non-respondents.

We often have to dispel the notion that anybody can write a good questionnaire. We constantly encounter serious flaws in client drafts, such as leading, and poorly worded questions, which would yield ambiguous results at best. Fortunately, our survey professionals craft questions so that the client's expertise is directed to working the right client problem(s).

Unlike academics where one frequently has the luxury of analyzing data as one sees fit, in business, clients must be convinced of the value an analysis will bring, before they approve funding. When clients have little or no statistical background, and have correspondingly little comfort with technical jargon, the successful statistician must also be a salesman. He or she must be able to communicate the value of any proposed analysis to a client in clear, simple, non-technical terms. This can prove somewhat challenging for many a statistician, when the most complex terminology a client is willing to tolerate is a "sum" or a "mean", and you need to sell them on a multivariate analysis of variance, or a factor analysis. Simply telling a client that an analysis is valuable, or that it is needed, is usually not sufficient to sell the work. One must have the talent to be able to open the client's eyes so they see the value for themselves. Perceived value sells work.

In a similar vein to selling a statistical analysis, one must also sell data interpretation and associated graphics to reap full value of all but the simplest analyses. In the world of business, nothing is a free ride. Every bit of work must be cost justified to the client. When the client accepts the proposed analysis and treatment of the data, it is a very pleasing occasion. On the other hand, it can be a disheartening experience for the statistician when the client either does not see the value of the work proposed, feels the work is not cost effective, or worse yet, realizes the value but does not have the budget for it.

Often our clients are not comfortable with quantitative results and feel that survey results may be overwhelming. They are afraid that surveys can yield reams of item frequencies and cross-tabulations. When part of the project, the E&Y Survey Center summarizes the results through the use of applied statistics and charts, as well as interprets and renders them into a powerful management summary. This summary provides a quantitative study of the survey data to obtain understanding and value. It often includes:

- Summary descriptive statistics;
- Charts which display statistically significant differences between groups;
- Forecasting;
- Clustering to determine if groups of respondents replied to the survey in a similar manner; and
- Exploratory analysis / data mining.

We interpret a client's data with respect to their business purpose and presents findings. We determine the audience and write to that audience, i.e. business presentation or technical journal. Our presentations tell a story. They follow a logical, non-statistical progression, and do not just present data. Concise powerful wording is key to many business managers. We include graphics and tables to best display the findings. At the Survey Center, we have established an effective methodology so that survey myths do not occur. Our clients get quality information they can use to make better business decisions.

The survey project does not end when written or electronic deliverables are presented to the client. The client is encouraged to share results with survey participants, and others who would be interested in the results. Sharing results with participants is a vital way to thank them for their cooperation. Not sharing tends to breed apathy and poor response rates on future surveys. Individuals who participate in surveys but are not informed of results typically develop a mindset that they wasted their time completing the survey, since their response seems to have gone into a "Black Hole", i.e., to their knowledge, nothing productive was gained from their time investment. This observation then tends to work against future survey efforts.

When necessary, the statistician must not only deliver results to the client, but also be able to encourage and advise the client in how to communicate news of the findings to an audience. This is usually an easy matter when survey findings are positive. It is much more challenging to communicate bad news or controversial items to an audience, so that the information will be accepted without causing adverse reactions.

IV. Some Best Practices for Deployment

Just as proposed survey work must be sold to the client, the survey itself must be "sold" to the target audience. Make it easy for the respondent to comply with the survey. Some ways to help "sell" or "encourage" participation from an audience are listed below:

- **Keep survey length to a minimum.** Shorter surveys will almost always land you more respondents. Every question asked in a survey should be evaluated on the basis of what information it will provide, the usefulness of that information, and is that information necessary.

- **Survey layout and navigation should be user-friendly** and require little to no instruction for the user to understand and complete. Busy individuals often do not have time to read instructions, much less complete a survey. If the survey does not look real easy to complete, it will often be discarded. If instructions are critical to obtaining good data, better make sure they are kept short and are presented in a manner which grabs the user's attention, e.g., font size, color, use of key words such as **"IMPORTANT – READ THE FOLLOWING".** If the survey is e-mail or web based, make sure response time to any keystroke or command is immediate or near immediate. Individuals have developed a very low tolerance for "slow" software.

- **Pilot the survey to ensure correct understanding of content and to optimize user-friendliness.** Pilot subjects can tell you whether the survey is too long, too complicated, or unclear. Ask them, listen, and react. Obvious problems will show up very quickly in a pilot.

- **Make it easy for a target to obtain and submit the survey.** Some clients specifically ask for a paper-based survey. If so, we allow the respondent to fax it back or at least enclose a self-addressed stamped envelope (SASE) for easy survey return. Many surveys are now available through the web or via e-mail. E-mail surveys are often easier than web based for a target to receive and return, as they are delivered to your mailbox, and usually do not require an active server connection to complete. A click of a button typically places the completed survey in the respondents' outbox for automatic return. Web based surveys must attract a respondent to a web site where the survey resides, and if identity is important, usually requires a password for survey participation. To minimize the effort needed to reach the web site and login, such surveys may be delivered to an e-mail address via a link in the cover letter, and a unique password may be embedded within the link, so that the survey is password protected without requiring the respondent to learn or manually key-in a password. One "click" on the link does it all. Where feasible, consider deploying the survey in more than one medium, for example paper and electronic, to provide the user with more options to comply.

- **Conduct a sample rather than a census, where appropriate**. One of the first steps in any business survey is the identification of the target universe, the quality of any lists or frames for that target universe, and whether a sample or census of the target universe should be selected. We make this recommendation after consultation with the client about their goals for the survey, their budget and timing constraints, survey mode, and incentive considerations.

- **Provide an incentive for compliance.** A discussion that takes place during the initial planning stage of a business survey is what motivation does a likely respondent have for completing the survey. Will their interest in the subject motivate them to respond? Will the respondent's sense of 'civic' duty encourage them to respond, as is common in many government surveys? Is the sponsor a trade or membership organization where the respondents may have some financial implication for themselves that may motivate them or will some incentive need to be provided?

V. Reminders

Reminders to complete a survey are critical to obtaining good response rates. Dillman's standard methodology recommends the use of reminders in nearly all survey implementations. Reminders do not have to be the same media as the actual survey. We have used phone reminders for a lengthy mail out survey. In other situations we have used e-mail reminders for surveys of various modes. Reminders range from a post card that reminds and thanks the respondent mailed shortly after the survey is first distributed to a phone call verifying receipt of the survey and reminding the respondent to complete the survey.

VI. Examples

The Survey Center has been conducting a monthly e-mail satisfaction survey for a client this past year. There are about 600 surveys each month with three e-mail reminders. The final monthly response rate has ranged from 41 to 59 percent. The first reminder has helped to more than double the response rate in half of the months. The second reminder has generally caused the response rate to increase another ten percent. The third reminder has increased the response rate an additional seven to ten percent.

Other Examples

Survey Type	Medium	Response Rate
Ratings	Survey Tracker E-Mail Survey	61
Recruiting	Internet	58
Questionnaire	CATI	80
Questionnaire	Paper	32
Satisfaction	Survey Tracker E-Mail Survey	54

VII. Conclusion

We have some excellent results using good sampling techniques, advance and motivational letters, well-designed survey instruments, and targeted follow-ups to provide clients with results that allow them to make well-informed decisions.