

“Perspectives”

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Random Sampling v. Panel-Based Research

by Larry Fisher, Synovate

Larry Fisher offered his “Perspective” on Random Sampling v. Panel-Based. Larry is Senior Vice President and Director of Global Online Strategy for Synovate, Inc., based in the Chicago Americas office. Trained as an ethnographer and social scientist, Larry has broad experience in consumer panel research, ethnic research, syndicated tracking, and quantitative custom research both in the US and globally through his prior positions with TNS, The Test Marketing Group, and Information Resources.

1. For each method, what is involved in finding/putting together the sample?

Sample is compiled at two levels: during the construction of the panel, and during selection of sample for a particular study. A panel is usually recruited through the medium that will be used to capture data during the respondent’s tenure on the panel (e.g., telephone, internet, mail). The resulting panels are typically assembled for either “online” or “mail/telephone” data collection.

Recruitment is usually done in waves during an inaugural launch, with a constant watch during build-up of panel composition against sampling frame targets. Components of the population that are expected to be harder to reach, and harder to retain, will be over-recruited and may represent a disproportionate share of the resulting pool applicants. Subsequent recruitment waves will then be focused on improving the panel composition, not only to represent better the total population, but also to provide a basis for the most robust survey capacity. For a panel-based study a random sample of panelists is selected and the sample is invited to co-operate in the study. And although the sample is selected randomly there is often still a low response rate.

2. As a researcher, what are the advantages of both panel-based research and random sampling?

Panel results match random-sample results within established statistical guidelines while adding significant operational benefits. The inferential properties of RDD will be superior, as long as the level of non-response is small. Online research has increased dramatically in the last ten years based on its obvious benefits – the speed, the programming advantages, the elimination of interviewer bias, a predictable composition and lower cost. The lower burden and higher engagement benefits of online translate into higher response rates and better quality data.

3. What are the disadvantages of each?

Non-response bias in panel research is generally assumed to be inversely proportional to the reported response rate. It is impossible to estimate the true response rate for panel recruitment with online methods. Statisticians point out that non-response bias should also account for those who are made aware of the panel but choose not to join. The concern here is that people who join panels are not representative of those who do not, especially if panel membership is a self-selection process, encouraged by an incentive system that appeals to personal gain through sweepstakes, prize drawings, points, free services, or outright cash payments.

4. How does each method deal with decreasing respondent cooperation rates? Is one more likely to increase survey participation?

It's all about balance. Stratifying the sample outgo in order to get the right ending balance is the correct technique to employ. Everything being equal, of course we want higher response rates. But in successful panel work there can be an inverse relationship between optimizing the response rates (the higher the better) and optimizing the representivity (the more the better). My advice is not to take high response rates as the sole design objective. By inviting only the highest responders to take your survey, you will be improving your cooperation rate, but in all likelihood this gain will be at the expense of having produced a representative sample. Regarding telephone research, 'Do Not Call' legislation is more of an issue for non-panelists who occasionally accuse the caller of having made an illegal phone call. The interviewer must attempt to explain that the call is perfectly legal, coming as it does from a bona fide market research company that is not attempting to sell anything.

5. With the emergence of online research and its increasing popularity, is there a greater risk encountering "professional respondents" with one of these methods? And what can be done to remedy this problem?

Yes, there is admittedly a greater risk of "professional" respondents with the panel approach. That said, professional respondents are accustomed to taking surveys and are highly capable of orienting to survey format, skip patterns, and focusing on a task. Research indicates that some 20-23% of US adults account for 100% of survey responses in a given year, regardless of whether random sample or panel-based. That means that 77-80% of US adults are not reached by any sampling method. One remedy is to balance "hard" incentives that appeal to professional respondents with "soft" incentives that might include donations to charity and offering the straightforward opportunity to have one's opinion heard. And the resulting panel will be more reflective of all the motivations that drive people to share their views, including those who have non-professional as well as professional intentions.

6. Which method, in your opinion, provides the respondent with a more enjoyable survey experience and how does it do so?

Online panel research is most convenient for the participant who is able to choose time and location for completing the survey assignment.

Beyond the convenience of where and when the survey is to be completed, the significantly lowered intrusiveness of the self-administered online session facilitates respondent comfort. This in turn enables more candor in responses, especially to sensitive questions. An enjoyable survey experience leads to better quality data, regardless how the respondent sample is recruited.

In my view, quality questionnaire design is the single most important factor contributing to an overall enjoyable and satisfying survey experience. All questions will not make sense to all respondents. This is especially problematic if each question must be answered in order to advance through the questionnaire. Part of the legacy of face-to-face and telephone research is the ability to probe “don’t know” responses, so that no information is left on the table. Online data collection provides no opportunity to probe without re-contact, at least for most quantitative applications. There are legitimate reasons why a respondent may not know the answer to a question. By forcing answers, survey completion rates decline, and exasperated panelists may exit the panel entirely.

7. Which method is more conducive to online research? And Offline?

Many of the advantages we normally associate with online research are largely the benefits we get from panel. Online research requires a double opt-in recruitment step that makes a panel-pool of respondents fundamental to the design for consumer research. Offline research has more latitude in sample sourcing. Yet increasing difficulties in obtaining truly random samples, coupled with the dual needs for those contacted “randomly” (1) to accept survey duty, and (2) to complete the entire survey course without introducing sampling bias, in combination tend to negate much of the promise.