Sample Frames Vs. Data Quality: When Research Panels Are from a Client and a Research Firm

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Sample Frames Vs. Data Quality:  
When Research Panels Are from a Client and a Research Firm

Michael Latta  
Coastal Carolina University

ABSTRACT

Clients, academics, and marketing research practitioners are concerned about sample frames and their relationships to data quality. In addition, clients sponsoring marketing research surveys are concerned about data collection period length. Typically, brand managers pressure research suppliers to quickly find solutions to the research problem. This study provides real world data on a survey among 504 female consumers. Two sample frames were involved: 1) a Volunteer Access Panel (VAP) and 2) a Non-Volunteer Access Panel (NVAP). The use of two sample frames reduced the field time for the client, provided lower costs, and added value in meeting rapid response requirements.

INTRODUCTION

Many brand managers feel extreme time pressures when making decisions about promotion campaigns for target markets, and providing segment profiles to both ad agencies and upper management. This situation leads to a need for rapid response data collection methods. Increasingly, marketing research professionals have turned to multi-modal sample frames to obtain respondents for projects with short timelines. Surveys that took a month to deliver results are now expected in half the time or less. Multi-sample frame surveys provide broader access to specialized or target respondents in simultaneous field periods meeting rapid response requirements.

Recently, panels and client proprietary databases have been used to complete rapid response surveys. Some polling companies, marketing researchers, and academics have expressed concerns about panels creating professional respondents that are different from the average (Dennis, 2001). However, those concerns were not supported by the data in that study. On the political side of surveys, panels have received wide use including a great deal of research sponsored by the Federal Government (Fitzgerald, Gottschalk, and Moffitt, 1998), (Lillard, and Panis, 1998), and political research on elections (Bartels, 1999). Consumer panels have become available for both web and phone surveys provided by companies such as National Family Opinion and Greenfield Online. Product category specific databases have been built by companies for their own use through 800 numbers attached to customer relationship management programs, business reply cards from magazine and journal advertising, product website registration information, surveys, and other sources. This trend is reflected in reports of increased use of client supplied and third party supplied samples by marketing research companies doing field work for surveys.
In tracking the use of multi-sample frame surveys from 2004 to 2007 (Macer, and Wilson, 2008), research has shown a high use of client supplied (77%), and third party or access panels (74%) as sources of samples for multi-sample frame surveys. These high utilization rates are taken to indicate customer research is an important sample source for marketing research surveys with access panels showing the greatest increase in utilization (+18%) over the four year period. The present survey involved these two types of sample frames in a rapid response segmentation study.

Rationale for the Survey

The client company commissioning the study has been serving the consumer market with a ‘gold standard’ product since 1978. During that time many marketing research studies had been undertaken involving consumers in this market, but no research study had focused on segmenting the market. The company now wanted to better address social and psychological issues unique to the consumer target market.

The overall goals of this study were to understand consumer needs, information requirements, concerns and problems and to provide the client company with publishable results. More specifically, the objectives of this research were to determine consumers’ current knowledge of and attitudes toward their problems, to gain greater insight into common concerns products in the target market, to identify concerns and misunderstandings concerning the company’s product, and to identify methods and resources favored for communication by the target market.

METHOD

In order to meet the objectives of this research, a division of National Family Opinion Research (NFO), was commissioned to conduct a two-phased study. The qualitative stage consisted of five focus groups to define the survey instrument. For the quantitative portion, a survey was conducted among a national sample of 504 consumers. Results of Phase I (qualitative focus groups) research were utilized to structure content areas for quantification.

The quantitative consumer sample was drawn from two frames: a proprietary 800-line call in service database of 1,913 consumers maintained by the company and a 2,208 member NFO access consumer panel.

Respondents represent a random a mix from the above databases. Computer Assisted Telephone Interviewing (CATI) was used to collect data from consumers in this survey. Each interview lasted approximately 25-30 minutes and each respondent received an honorarium for cooperation.

RESULTS

Sample Demographics

Because of the nature of the client’s marketing interest, all respondents were women and approximately 60% of the sample is between 60 and 75 years of age. Half of the consumers
have a high school education or less. Six in ten are married; about one in four are widowed. The bulk of these consumers have incomes below $40,000. Four in ten have incomes less than $20,000 while a similar number have incomes of $20,000 to $40,000. Ethnically, the consumers in this sample are primarily Caucasian (91%). The minority population is somewhat underrepresented by African American (4%) and native American (4%) women. Respondents cut across various residential settings. Slightly over four in ten live in the suburbs, one-third live in urban areas while about one-fourth classifies their area as rural.

Survey Performance Measures

The four standard performance measures of survey sampling appear in Table 1 below. As can be seen from the data in the table, the NFO Consumer Access Panel (NFO-CAP) was more efficient in converting dials into contacts (43% vs. 39%) and converting contacts into completions (63% vs. 35%) compared to the Company 800 #.

Figure 1 below presents the cumulative dials, contacts and completes for the NFO-CAP sample pool. As can be seen in the rapid growth of completes, the survey was finished in three days.

Figure 2 below presents the cumulative dials, contacts, and completes for the 800 # sample pool. This sample pool was not as efficient as the NFO-CAP since it took four days to obtain the desired number of completes from this sample frame.

DISCUSSION

Academics and practitioners alike are concerned about respondent origin and its relationship to data quality. For example, it has argued (Krosnick, 1999), that survey research methods need a change in standard operating practices (SOPs) such as systematic, representative sampling and high response rates with post-survey weighting used to maximize representativeness.

On the practitioner side, the Chief Statistician at Knowledge Networks, argues that survey researchers need to be clear about the nature of the access panel used for sampling (DiSogra, 2008). The differences in data quality between Volunteer Access Panels (VAPs) and Non-Volunteer Access Panels (NVAPs) are real and important according to this argument. Clearly, the data reported here indicate the quality of the NFO-CAP (NVAP) sample frame was better than the company 800 # (VAP) sample frame.

The Director of Respondent Cooperation at the Council for Marketing and Opinion Research (CMOR) has argued that data quality issues related to respondent cooperation, respondent engagement, respondent coverage, and presence of professional and fraudulent respondents are all connected to the origins of the consumers in a sample frame (Glazer, 2008). Consistent with CMOR, practitioners of marketing research strive to meet the new standards of operation adopted by the research industry including:

- Improve the representativeness of access panel samples
- Decrease the field time for a survey
Lower the costs of research to deliver higher value
Be concerned and protective of privacy of access panel members
Comply with any privacy legislation

In the context of the survey performance reported here, these concerns seem to be more intense for the company 800 # sample frame than the NFO-CAP sample frame. However, use of both sample frames reduced the field time more than likely and leveraged the company sample frame in providing lower costs and greater value in meeting rapid response requirements.

REFERENCES


ABOUT THE AUTHOR

Michael Latta holds a Master’s and Ph.D. from Iowa State University. He joined Coastal in 2005 and is an Associate Professor of Marketing and the Endowed William J. Baxley, Jr. Applied Business Professor in the E. Craig Wall Sr. College of Business Administration. Research interests include new product adoption, small business survival, and effects of promotion on demand. Most recent consulting assignments have focused on Predictive Analytics as a method of business process improvement.
Tables and Figures

Table 1
Overall Performance of the NFO-CAP and 800 # Sample Frames

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>NFO-CAP</th>
<th>800 #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Completions</td>
<td>354</td>
<td>150</td>
</tr>
<tr>
<td>Total Disqualifications</td>
<td>145</td>
<td>174</td>
</tr>
<tr>
<td>Total Dials</td>
<td>1269</td>
<td>1092</td>
</tr>
<tr>
<td>Total Contacts</td>
<td>554</td>
<td>424</td>
</tr>
</tbody>
</table>
Figure 1
Cumulative Performance for the NFO-CAP Sample Frame
Figure 2
Cumulative Performance for the Company 800 # Sample Frame