Evaluation of Survey Methodology as a Basis for Business Intelligence

MEG

Market Enhancement Group, Inc.

Executive Summary

The Challenge

Businesses and organizations require highly accurate information about their customers and members to successfully carry out their mission. Because collecting up-to-date information can form the basis for decision-making — accuracy, reliability and cost are all important considerations in planning and executing a survey project.

With any survey effort, several factors can undermine the validity of the collected data. These negative factors include 1) self-selection that can produce skewed results, 2) unsupervised response sessions that can compromise survey accuracy and completions and 3) ongoing challenges with costs, logistics, and delays in producing reliable findings.

With proper planning and by selecting appropriate methodology, these negative factors can be greatly minimized or avoided all together.

Available Methodologies

Mail Surveys	Internet Surveys	Telephone Interviews	In-Person Interviews
Self-administered	Self-administered	Facilitated by trained interviewer	Facilitated by trained interviewer
Low cost; quick to administer	Low cost; quick to administer	Moderate cost; efficient administration	Higher cost; most complex, logistically
Low response rates and data quality; self-selection compromises results	Low response rates and data quality; self-selection compromises results	High response rate; rich information with opportunity for immediate follow-up and probing	High response rate; rich information with opportunity for immediate follow-up and probing
Can provide moderately representative findings	Can provide moderately representative findings	Highly representative findings	Highly representative findings
Suitable for collecting informal or preliminary information	Suitable for collecting informal or preliminary information	Recommended methodology for moderate cost, in-depth and highly accurate surveys	Alternate methodology for in-depth, highly accurate findings when higher cost is not a barrier

The Preferred Approach

At MEG Research, we have investigated the value of Internet polling compared with telephone and in-person surveys. We have looked at the advantages and disadvantages of these methodologies through the prism of a science-based regard for data integrity.

The concept of data integrity represents a touchstone for the appropriate selection, design, implementation and analysis of survey methodology. Only through the collection of accurate data and its preservation through the ensuing stages of the survey process can reliable findings be formulated.

Establishing and preserving data integrity requires strict consideration of the following:

- **Accuracy**
  Does the collected data accurately reflect the respondent's opinions, wants, needs, etc. What elements of the survey instrument or methodology are compromising the accuracy?
- **Response rates**
  As opposed to the overall *number* of responses, how high is the actual response *rate* — that is, the ratio of completed to attempted surveys? Only a high response rate can produce reliable results.
- **Quality**
  Does the survey allow for follow-up questioning and probing? This added detail could help extract a stronger understanding of the response data.
- **Completion**
  This is tied to response rate but also examines the barriers to achieving a higher completion rate. Are the questions easy to understand, are they relevant, and do they really address the topic being researched?
- **Bias**
  Through self-selection — which is especially the case with widely distributed, self-administered questionnaires (i.e., mail and Internet surveys) — the results can be skewed. For example, seniors and other subgroups are more likely to respond to mail and Internet surveys. This can distort the reliability of the findings because subgroups are over-represented in the collected data.

Conclusion

Data collection is a critical, early phase of the larger research process. The integrity of the data collected affects the validity of the eventual findings.

As consultants in the field of market research, our choice is clear: use inexpensive mail and Internet surveys to explore topics and collect first impressions but continue to rely on statistically reliable and quantitative methodologies, like telephone and in-person surveys, to gather data with sufficient integrity to generate actionable findings.

The Situation

Never before have businesses faced as daunting a challenge to ensure that the data they collect can be transformed into actionable business intelligence. After all, this intelligence then forms the basis for defining business practices, enhancing product or service quality, and/or boosting profitability.

This daunting challenge is equal parts irony and survival.

- Irony because never before have businesses had so many survey techniques available, yet been so ill-advised on what particular technique might be appropriate or even helpful.
- Survival because, in an age when traditional business marketing has been turned on its head to exalt customer and market behavior above all else, businesses that do not collect reliable data from their respective markets will struggle to survive.

The Business Landscape

Whether your target market consists of young adults, a membership roster, high-income consumers, or business professionals — there are certain realities of modern society that cannot be ignored in the pursuit of collecting reliable market data:

- Information overload is the rule
- Responses that are elicited may or may not actually have any validity
- The rush to impose meaning on a mass of data can be seductive yet must be resisted

Information Overload

All of us — whether we are mid-career, retired, a student or we are pursuing life and happiness in some other capacity — swim (and sometimes sink) in a sea of information. This barrage of information includes display advertising, blaring sound systems and TVs, print media, intrusive conversations . . . and email. In fact, email may represent the most invasive form of information and also the easiest for us to mistrust or ignore.

Now, what are the odds that respondents who receive your emailed invitation to participate in a survey will even see it, much less seize the chance?

The Gremlin of Self-selection

Generally, individuals protect their free time and are disinclined to complete a survey. Yet there are individuals who will take the time to complete a survey. But how well do they represent the larger population? How reliable will that body of data really be?

The more widely distributed a survey, the less control there is over who completes that survey. When self-selection plays too big a role in data collection, there is a problem.

Only a representative sample can produce accurate data that can, in turn, generate reliable findings.

Although Internet surveys can throw a very large net and elicit impressive numbers fairly quickly, the gremlin of self-selection looms large in this methodology. Internet surveys may be suitable for revealing initial impressions or "taking the pulse" on certain issues, but creating a body of reliable data (from which generalizations can be drawn) is typically beyond recommended use for mail and Internet surveys.

The Rush to Judgment

The phenomenon of "jumping to conclusions" correlates to the information overload we mentioned above. We are overloaded with information because we too often confuse information — or raw data in all its forms — with results. The journey from raw data to business intelligence reflects a carefully crafted process. At any point in this process — that is, turning data into business intelligence — a wrong turn, a short cut, a non-scientific procedure or a miscalculation can put the entire study in jeopardy or worse, can generate false results.

Available Data Collection Methodologies

In the next section, we look at four prevailing survey methodologies: mail surveys, Internet surveys, telephone surveys, and in-person surveys — and evaluate them across a number of dimensions.

Data collection comprises a foundation for the process to follow. A mistake in this part of the process threatens to compromise all that follows.

Data collection methodologies matter because, at this critical stage in the process, there are several considerations that must be taken into account:

- Statistical integrity
- Quality of information
- Depth of information
- Accuracy of information

> ***"As the twig is bent, so is the tree inclined."***
>
> ***— Alexander Pope***

All of these considerations have to fit together much like a jigsaw puzzle. If one piece is missing, the puzzle can never be completed.

Available Methodologies

	Mail Surveys	Internet Surveys	Telephone Interviews	In-Person Interviews
Statistical Reliability	Low	Low	High	High
Amount of information from each respondent	2 to 3 minutes	3 to 5 minutes	15 minutes	30 to 45 minutes
Speed	Slow	Fast	Fast	Slow
Completion rates (i.e., the ability to get hard to reach survey respondents to participate in the research)[1]	Low	Low	High	Moderate
Cost	Low	Low	Moderate	High
Quality of information	Low	Low	High	High
Ability to monitor and establish rigid quality standards	Low	Extremely Low	High	Moderate
Ability to gather accurate information	Low	Extremely Low	High	High
Likelihood of getting rationalizations instead of real reasons	Yes	Yes	No	No
Ability to get a representative, geographical sample	Moderate	Low	High	High

[1] Response rates for mail surveys are rarely higher than 15%. Typical telephone completion rates are 76%-82%.

Data Integrity

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Data Accuracy

With the rise of the Internet and the ease of e-mail, many businesses and organizations have come to rely on online surveys that can be quickly and easily created and save on costs. An online questionnaire can cost as little as 5 to 20 percent of a regular campaign. Whole companies have sprung up around the concept. The real question then is, will the data you get back be accurate?

Response Rates

Well-designed Internet surveys average a response rate of less than 10% — a 30% rate is only achievable when there is a strong emotional tie between the survey respondent and the issue or the organization conducting the Internet survey.

Lacking this strong emotional tie, response rates often drop below five percent, meaning that your survey does not represent your membership or target audience.

Most Internet surveys get less than a 10% response rate. One of our customers had a 0.46% return rate on a recent email survey done on their own. That means the vast majority of people you are trying to reach, for their feedback, are not getting back to you. Response rates can be even lower when there are no pre and post notifications.

Additionally, there is no way to account for variables such as spam filters, bounce rates and how a survey is displayed on a computer if a respondent opens the e-mail. According to David Walonick, Ph.D. and President of StatPac, Inc., ". . . after questionnaire design, response rate is generally considered the single most important factor in determining the validity of a sample."

Typical completion rates for different methodologies are presented below:

- Telephone surveys: completion rates range from 40 to 80%
- Mail surveys: average 5%or less completion
- Internet surveys: 1 to 30% completion; average less than 10%

With such low response rates and uncontrolled variables, it is hard to determine whether the answers are valid or not.

Response Quality

In interviewing parlance, quality refers to the depth of information and the richness of the response. Open-ended and follow-up questions, for example, can produce not only more information but can also reveal intention, context, and personal attributes of the respondent. This can only be achieved by trained interviewers, skilled in listening to not only the response but the overall tonality of the interviewee and the flow of the conversation. This in-depth probing cannot be achieved through internet, mail or other self-administered surveys.

In telephone surveys, people will say more than they will write in a mail survey. With Internet surveys, they will type less than they will write (mail surveys) or say (telephone surveys).

With Internet surveys, there is simply no way to tell if respondents read or understood the questions. When they do answer, there is no opportunity to either probe further and or to find out what they meant.

Response Completion

A common mistake in research is to evaluate a project's accuracy solely by the number of respondents in the study. Also important is the response rate — that is, what proportion of the people you contact actually provide you answers.

Telephone surveys should provide response rates of at least 40%, and often up to 80%. This means 40% of the people you reach by telephone will participate in the survey. Mail and Internet surveys usually bring much lower response rates, which means the study has a much higher chance of not truly representing the people it is supposed to.

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Some mail surveys — particularly those which "ride along" with other mailings, such as your newsletter or a fundraising letter — can result in response rates as low as 5 to 10%. When the response rate is this low, it means there is a very high likelihood that you are not truly getting a representative sample — in other words, that the data is misleading and essentially useless. There is a much greater danger of this with mail and Internet surveys than with telephone.

Response Bias

Response bias is a major part of the problem. This refers to one type of person being more likely to respond than another type of person. Seniors, for example, are consistently more likely to respond to mail surveys than are Gen-X, Gen-Y or Boomers.

Business and organizational executives are among the least likely to respond to mail and Internet surveys. Good researchers balance for this type of response bias, or else the accuracy of the study is compromised.

Low response rates in telephone interviewing usually mean interviewers get survey respondents who are easier to interview — often those with lower income, lower net worth, less education, less institutional power — that is, the ones least likely to help your organization's balance sheet, sales or brand.

Conclusion

The four survey methodologies that we have included in this discussion all accomplish one critical phase of market research — they collect data from respondents within the population of interest.

If this one phase were the only criterion for success, one methodology would not rise above the others. But data collection is not the complete process — it is a component of the larger research process. The integrity of the data collected — its accuracy as well as the response rate, quality, and bias — all affect the validity of the eventual findings.

Mail and Internet surveys, characterized by self-selection bias and hard-to-control variables, have lower data integrity overall and by extension, create a weaker foundation for developing business intelligence that can guide policy, inform decision-making and enhance profitability.

As consultants in the field of market research, our choice is clear: use inexpensive mail and Internet surveys for exploring topics and collecting first impressions but continue to rely on more statistically reliable and more quantitative methodologies like telephone and in-person surveys to gather data that has sufficient integrity to generate actionable findings.

The Bottom Line

At MEG Research, there are times when we have integrated an Internet component into our research. But these are in very specialized situations when there is a strong emotional tie between the respondent and the issue being evaluated.

Our company is built around a promise to deliver accurate, precise data to our clients. We have found that standalone Internet surveys cannot deliver the accurate data our clients require.

Businesses that rely on us need to feel completely confident that the information we give them is right and truly reflects the mindset of the sample population we talk to. To that end, we found there was no way we could make that guarantee with purely online surveying.

At MEG Research we are utilizing the tried and true methods developed over more than 40 years. Our team uses phone and in-person interviews with response rates that average between 70 to 90% and where we can control the variables.

Is there a place for Internet surveys? Yes, there is. If you are trying to get a general feel for a given topic or quick feedback, then a well-designed online survey can help you get answers quickly. An Internet survey can be appropriate, even recommended. But if you are looking for in-depth analysis and you need to make strategic decisions based on the results, then the proven and statistically robust, telephone or in-person survey method is still the best.

To learn more about how MEG Research works with real estate professionals please visit our website at http://www.meg-research.com.