

Guidelines for Market Research



August, 2003

Adopted by ARF Board of Directors

Copyright © 2003 The ARF. All rights reserved.

Table of Contents

– Introduction	1
Contributors	
1 – The Origin and Purpose of the Study	3
A. Link the research to the business need	
B. Clarify how client needs will be best served	
C. Connect research outcomes to business actions	
D. Make use of past research	
E. Use research to manage implementation and ongoing stewardship	
F. Identify roles and responsibilities of research firms	
2 – Return on Research Investment	6
A. Introduction	
B. Identify the decisions to be influenced by the research	
C. Assess the value of a research-informed decision over a decision based solely on judgment or experience	
D. Select the metrics to be used and gain consensus on their appropriateness	
E. Relate the cost of the research to the potential value of a better decision	
F. Delineate how the knowledge and learning will be used to increase research ROI	
3 – The Research Plan	13
A. Introduction	
B. Ensure that study concept and design will fulfill objectives	
C. Balance between realistic study context and need for control	
D. Appropriateness of study timing for the objectives	
4 – Respondent Considerations	17
A. Introduction	
B. Detractors to respondent cooperation	
C. Supports for respondent cooperation	
D. Measuring and reporting response rate	
E. Respondent rights (ethical and legal)	
5 – The Sample: Design and Execution	22
A. Introduction	
B. Defining the population or universe of a study	
C. The sampling frame	
D. Probability sampling methods	
E. Procedures for selecting units from the sampling frame	

- F. Assuring that the sampling plan is fully executed
- G. Evaluating the adequacy of the sample size
- H. Designating the respondent to be included in the study
- I. Incidence rates and their relationship to sampling measures
- J. Exclusions and how to treat them in sampling calculations
- K. Quota samples
- L. Special considerations when conducting sampling for qualitative research

6 – Data Collection: The Questionnaire 32

- A. The definition of questionnaire
- B. The purpose of a questionnaire
- C. Basic types of questionnaire
- D. Basic considerations
- E. Questionnaire length
- F. Establishing initial contact with the respondent
- G. The screener
- H. The main questionnaire
- I. Questionnaire appearance
- J. Constructing individual questions
- K. Ensuring good flow and control
- L. Quality control
- M. The questionnaire approval process
- N. Documenting the questionnaire
- O. Closing the questionnaire
- P. International surveys

7 – Data Collection: The Fieldwork 48

- A. Introduction
- B. Interviewer selection, training, briefing, and motivation
- C. Quality control procedures
- D. Fieldwork verification
- E. Information for response rate calculation dependent on field
- F. Ensuring that self-administered surveys are sufficiently complete and accurate
- G. Logic checks in computer-administered surveys
- H. Pretesting questionnaires to increase completion rates

8 – Data Processing 51

- A. Introduction
- B. Data entry and verification
- C. Editing and cleaning
- D. Coding
- E. Data integration
- F. Basic data tabulation

9 – Treatment of Data	55
A. Introduction	
B. Design weighting, sample balancing, and projection weighting	
C. Calibration weighting	
D. No-answer distribution	
E. Ascription	
F. Scaling and other adjustments	
G. Data overlay	
10 – Presentation of Findings	60
A. Clear, objective, and accurate presentation of findings	
B. Differentiation of data findings from data interpretation	
C. Explanation of data treatment	
D. Distinguishing between association and causation	
E. Disclosures	
F. Charting and graphical representation	
11 – Challenges of Specific Populations	63
A. Introduction	
B. Consumers	
C. Customers	
D. Business-to-business	
E. Employees	
F. Children	
G. Multiculture	
H. Multicountry	
12 – Limitations – Final Checklist	76
A. Is the study reliable?	
B. Is the study valid?	
C. Are the measures and experimental design sufficiently sensitive?	
D. Can the results be generalized?	
13 – References	79
Appendix 1 – CMOR Respondent Bill of Rights	80
Appendix 2 – CMOR Model Survey Openings and Closings	81
Appendix 3 – Guidelines Review Board	83

INTRODUCTION

This document is an update and extension of the ARF publication, *Criteria for Marketing and Advertising Research*, first published in 1953 and updated in 1984.

Over the past two decades, political and social changes and transformations in communications have reshaped the way the majority of people on the planet live. The marketing, advertising, and research worlds have changed significantly over the past twenty years, and as a result it was judged by The ARF Board of Directors that an updated document of “Guidelines” should be developed for today’s users and practitioners of market research.

One of the most significant changes is the increasing globalization of businesses and communication. The second major force that has dramatically changed our everyday lives, both professional and personal, including the way we can conduct market research, is the Internet. Therefore, these new guidelines address both multicountry research as well as online research.

Other forms of market research, not covered in previous versions of *The Criteria*, but which are now thought to be important enough to cover in these revised and more comprehensive guidelines, are Qualitative Research and Management Information Systems.

These guidelines are intended to be a useful aid for both users and practitioners of market research, for both novices and seasoned professionals.

More specifically, they are meant for anyone starting a career in research, at any level, either on the buyer or supplier side. They are also useful for anyone starting a new research project, particularly in an area they have little experience with, again buyer or supplier at any level. In addition, these Guidelines may be used as a helpful checklist when either preparing a proposal or evaluating a proposal to ensure that every detail has been thoroughly thought through, and that the proposed research will meet the requirements stated. The Return On Investment chapter should be beneficial to *everyone* in marketing research, to help justify why research is necessary and why it makes sound business and financial sense to do research.

These guidelines attempt to cover most eventualities that the professional will come across, but no guidelines can ever be truly complete or cover all situations and contingencies, present or future. Still, no matter what the situation, the underlying quality of the research depends on the basic functions and considerations outlined here.

These guidelines are presented under headings of eleven key considerations.

Chapter 1 concerns the origin and purpose of the study. Chapter 2 discusses the Return on Investment aspect of the research project, a matter of vital import when a research proposal is submitted to the CEO/CFO of the sponsoring company.

Chapter 3 discusses aspects of the overall research plan. Chapter 4 addresses the growing challenge of declining respondent cooperation. Chapters 5 through 9 deal with the

specific design and methods used to conduct the study, whether it is multicountry, qualitative, or online in nature. Chapter 10 covers the presentation of findings and overall quality of the study. Chapter 11 discusses additional issues that should be considered when designing studies of a particular nature – the challenges of specific populations (children, professionals, etc.), which are increasingly important today.

These new guidelines were developed by members of The ARF Board, ARF staff, and expert research professionals, under the chairmanship of Rosi Ware of Kantar, WPP. The experience of the members of this group represents all areas of applied marketing research, and this report was designed to draw on and summarize this experience for use by all those concerned with supplying and applying marketing research study information.

We acknowledge the dynamic nature of the forces cited above and of the research industry, and we recognize that these guidelines must be considered to be an ongoing, evolving document that will need regular review and revision. In particular, we believe that the value of these guidelines can be enhanced by the addition of country-specific chapters that address the needs and unique characteristics of those countries. Cultural and legislative differences and differences in the public information resources important to sampling and projection to populations are but a few of the country-specific topics that could be addressed in future additions to these guidelines.

We further acknowledge the important contribution of The ARF Review Board members who have provided excellent guidance to the authoring committee on matters of substance as well as style.

GUIDELINES CONTRIBUTORS
Rosi Ware, Kantar, WPP
Jane Brown, Independent Consultant
Al Baldinger, Ipsos-NPD
Jim Collins, Scarborough Research
Bill Cook, The ARF
Rob DuBoff, Boston College
Ted Dunn, Independent Consultant
David Pring, CLT Research
Ken Royal, Gallup
Gabe Samuels, The ARF
Marissa Sison, General Motors

-

Guidelines for Market Research

1. The Origin and Purpose of the Study

A. Link the Research to the Business Need

Research may have either decision-oriented purposes, e.g., address specific business requirements, or it may seek to provide more fundamental consumer/customer understanding. All research should address particular business requirements. Linking decision-oriented research to the business need is essential to setting the parameters of the research. Business issues need to be fleshed out thoroughly. Issues are rarely single-focused, so it is important to clarify and lay out the hierarchy of needs that the research will address. Cost and value need to be considered in describing the purpose, as each is integral to actionability of the findings. It is the researcher's responsibility to be close to the business in order to understand why and how specific research can benefit the management of that business. "The Research" should not be thought of in terms of a single study but in terms of how best to address the expressed need(s) of the business. Multiple studies, one study, or maybe even no study may be called for in a given situation. One should always consider the information at hand before creating new work.

It is necessary to articulate the origin and purpose of the research, as the following examples illustrate:

1. Marketing has initiated a new ad campaign; therefore, it is necessary to track the marketplace performance of that campaign.
2. Market share is declining; therefore, it is necessary to examine all impacting elements to determine and quantify the contribution of each.
3. Several proposed changes in customer service procedures are likely to improve profitability; therefore, it is necessary to determine which achieves the best result without alienating current customers.
4. A new global strategy is being considered; therefore, before proceeding, it is necessary to develop a research program to establish acceptability and preference over current and competitive strengths or weaknesses in key countries.

B. Clarify How Client Needs Will Be Best Served

All studies planned must be linked to proposed concrete actions in order to establish effectiveness and relevance of the work. The value of the research should be evident at the outset for the decision maker. It is necessary to establish the face value of the proposed research, but not sufficient, unless the decision maker perceives the value and is ready to act on the directed outcome. It is important for the researcher to establish a value-added relationship with the decision maker(s) and to ensure that there is alignment on both the issues and the way forward. The research planned should fit the decision needed to be made in

terms of cost and value. Two major criteria to consider here are the investment size and the level of risk involved.

Some decision makers will be well versed in research technique and the related benefits, but others will require a different kind of exposition. Examples of how such research has proven useful in similar instances or how the research reduces risk and uncertainty are important elements in securing client commitment.

C. Connect Research Outcomes to Business Actions

Drawing connections between the business decision and the possible outcomes from the research must be discussed and agreed to. Discussion of the various hypothetical courses of action based on the likely outcomes should reveal how this knowledge provided by the proposed research will enhance the business.

Quantifying how the research will improve the business outcome increases the success of project endorsement and its utility.

D. Make Use of Past Research

No research stands alone. Previous research findings should be used as a basis and may even provide a solution to the issues at hand. It is prudent to have a thorough understanding of previous design, sampling, prompts, methodological nuances, and likely outcomes prior to initiating any new research. Consistency for comparative purposes is paramount. If any change is desired versus previous work, an understanding of how the variation will affect the interpretation is necessary. Minimally, earlier studies should help establish the direction, design, and the current information needs of new research. Information gathered earlier may suggest the likelihood of success for a particular desired outcome.

E. Use Research to Manage Implementation and Ongoing Stewardship

In decision-oriented research, it is mandatory during the planning stage to draw a careful linkage between the results of the research project and the decision(s) to be made based on the results. This is often called an “Action Standard,” and it should be well-articulated in the research plan and project proposal. Evaluative metrics are preferred over diagnostic metrics, which are less statistically defensible.

The specific data, which will lead to the given decision, need to be specified. This process is useful in several ways. It helps ensure that a specific decision will be made based on the research. It helps ensure that the project’s timing is sufficient to allow for a decision to be made. If a survey is involved, it ensures that the questionnaire includes the appropriate questions that will be used to inform the decision. And, as a general rule, it ensures that the research expenditure has clearly defined value to its sponsor.

In the case of tracking studies, or projects involving ongoing measurement, these action standards may be slightly less precise to allow for adjustments in the action standards as new learning is gained over time. Still, even in such cases, it is important that the metrics, which will be used to link the data and the decisions, be specified in advance.

F. Identify Roles and Responsibilities of Research Firms

Identification of the primary research firm responsible for the design and/or the execution of the study should also be clearly stated in the research chart deck, written report, or other analytic output. In applying the results of research projects and surveys, it is important to understand and communicate the extent of the research firm's role and responsibilities in conducting the study.

Some research projects involve the use of multiple research firms, each responsible for separate parts of the research project. For example, data collection, data processing, statistical modeling and analysis can all be subcontracted. Specialists in sample generation can be used to supply samples; panel companies can be employed to supply samples by mail, phone, or online. In all such cases, it is incumbent upon the primary research vendor to be as forthcoming as is practical in supplying the names of the relevant subcontractors to the project's sponsor.

This situation can be particularly complicated when multinational projects are being implemented. Such projects can involve many data-collection methods and separate subcontractors performing various functions in the process from country to country. Again, it is important that the primary research company be as clear as is practical in specifying the necessary and pertinent information in these situations. In all of these cases, the primary company should take responsibility for ensuring a strict quality control of the research.

Furthermore, the responsibility for managing the stimuli remains with the primary company, although responsibility for approval of stimuli rests with the researcher and his/her client.

-

Guidelines for Market Research

2. Return on Research Investment

A. Introduction

Historically, researchers have not taken the initiative to measure the Return-on-Investment (ROI) from their work. However, as researchers recognize the need to be business-like in plying their craft, these calculations have become an important part of the ongoing effort to expand the value that research brings to the bottom line, particularly over the longer term.

This section discusses the processes and substance of assessing ROI on a variety of levels. One dimension, of course, is the potential ROI of a given research project. Another is on a more aggregate basis, such as the ROI of an entire research budget for a brand and/or business unit. From another perspective, one can look at a limited time frame, e.g., the contemporary impact of a research study on whether to launch a new product; or a longer-term horizon, e.g., the life-time value enhancement of research which yields new, more profitable customers.

Valuing research not readily related to a decision

It is important to note that not all research neatly fits into a model of decision support or improvement. Very important research can be conducted to produce information without an immediate connection to a decision, e.g., a buyer value study or qualitative research to define advertising strategy or to help develop creative or educate the sales force about customers. This research should not be stopped because the ROI computation is not readily related to any definitive actions. Projects like these have always been hard to justify and to keep funded when business is slow. They are best supported through value assessments based on the entire budget of a research function and where senior management is amenable to some investment for the sake of marketplace knowledge. This subject will be discussed later in this chapter.

Calculating ROI is a very tricky business, and it is complicated further by the need to separate the impact of the research from the product(s) or service(s) to which it may pertain and from the marketing and sales techniques used to promote the offering. If research suggests launching a product that ultimately fails, which is to blame: the research or the product, and to what degree? The same questions can be asked about the advertising or the distribution performance and other aspects of the marketing of the new product.

Too often complexity such as this leads researchers to avoid the task of calculating ROI. However, if researchers want their craft to be perceived as a key component of any business, then they need to make the effort. And, in fact, there is good evidence that businesses that use measurements in management perform better than those that don't manage by metrics.¹

Furthermore, as Len Lodish put it in *The Advertising and Promotion Challenge*, measurements that are "generally right" are far more valuable than those that are "precisely wrong."² Striving for valid measurement is critical, even if the

research is not accurate within a tight bandwidth – both for establishing the value of research and for providing feedback to the research team.

The best approach follows five steps:

1. Identify the decisions to be influenced by the research.
2. Assess the value of a research informed decision over a decision based solely on judgment or past experience.
3. Select the metrics to be used and gain consensus on their appropriateness.
4. Relate the cost of the research to the potential value of a better decision and identify ways to conduct the research to maximize its contribution.
5. Delineate how the knowledge and learning will be used.

B. Identify the Decisions to Be Influenced by the Research

It is critical for the researcher(s) to meet with the “client,” the ultimate decision-maker(s), to discuss in detail the issue(s) prompting the research in order to understand exactly how the research will contribute to the decision-making. This is good practice for the sake of the quality of the research as well.

It is also useful to uncover any concerns the client may have about using research so that these can be discussed fully.

The conversation(s) should also cover what decision would be made if the research were not being done and the reasons for favoring that option. By deconstructing the decision, the researcher can learn some of the variables and beliefs that should be examined as part of the research project.

Specific issues that should be examined in these discussions include:

1. What target(s) is the decision expected to impact?
 - Potential customers (which specific segments)
 - Current customers (which specific segments)
 - Employees (which specific segments)
2. What are the revenue projections? What is their basis?
3. How might the decision impact on long-term loyalty of the customers and employees?
4. How might the decision impact on the life-time value of targeted customers?
5. What might the impact be on the brand(s)? On the brand equity (if that is calculated)?
6. How might the decision impact on costs? Would it potentially decrease or increase costs vis-à-vis the current state?
7. What impact might there be on performance of any of the traditional marketing Ps?

Finally, it is best to discuss at the onset how the research can facilitate a decision (e.g., what level of results would be compelling), how could it help in guiding implementation (e.g., looking at channel alternatives in addition to aiding a “go/no go” decision), and how could it assist communications of the decision both internally and externally.³

C. Assess the Value of a Research-informed Decision over a Decision Based Solely on Judgment or Experience

The value of research is a contribution that is often discussed in terms of simple risk reduction, e.g., the probability of management’s choosing to pursue a given marketing option prior to research was 50%, but with the negative (or positive) research findings the probability has changed to near 0% (100%). It should also be recognized that research may add value by revealing the value of a marketing action that otherwise would have been rejected, or even by speeding a decision to act. In these instances, the value of the research contribution can be related to the avoidance of lost-opportunity cost.

In a similar vein, the cost of a wrong decision can be computed and compared to the cost of the research proposal. If the latter is greater than, or even close to, the former, the research cannot be justified. If the latter is a small fraction of the former, there is an equally clear outcome.

D. Select the Metrics to Be Used and Gain Consensus on Their Appropriateness

There are numerous ways to measure the value that research can bring to any specific decision.

At its simplest level, when appropriate, one can compare the actual performance of the product, brand, service, business unit and/or company before the research and after whatever might be done as a result. In other instances, the team needs to hypothesize or model an outcome without the research and then compare that to what happens with research.

In either case, it is important to document actual performance (or the hypothetical if necessary) and contrast that with the pre-research, or non-research, performance.

In other instances, the focus is on new advertising or other marketing communications. Here the best comparison is between the average impact of such communications in the past versus what the research helps launch. Please note, the measure need not be increased sales since that is typically driven by factors well beyond the research, such as competitors’ actions, channels, pricing, etc. Furthermore, the quality of the ads, while it certainly may be influenced by research, is not driven by it. Researchers cannot create an effective ad; they can only recommend the best among alternatives and/or suggest enhancements. Thus, better measures for the research could be persuasion scores in copy tests for the finished ad; awareness of the ad among the targets (assuming media spending

comparable to past/average campaigns) and/or intention to buy or a like survey-based question.

Valuing research projects that are not related to specific decisions and specific measures, while more difficult, is still recommended. Here are three concepts which are useful either to assess the value of a specific project or the potential of the impact of the research function as a whole.

Comparison to a competitor

The first approach is comparison to a competitor, or an industry if the data can be known. For example, an enterprise could measure customer results or customer loyalty or other variables against its competitive set.

Customer asset base

Second is the concept of a customer asset base. There are many methods and computation alternatives but essentially this means taking the life-time value of each customer (basically what revenues one might expect for each future year one would expect them to stay a customer minus the cost to serve that customer for each of those years). Once the formula is established (which should be done jointly by researchers, marketers, customer service and finance), a project can be evaluated by how much the research added to the value of the customers affected. If potential customers are the target then those converted (or those converted in excess of those who would have been without the research) can be computed.

Value of the brand

The third construct is the value of the brand, or “brand equity”. Again, there are numerous ways to compute this, the simplest of which is market capitalization minus tangible assets. An alternative is to measure the price premium the brand commands either from marketplace data or through research. (In fact, the research’s ability to successfully raise prices is another method to prove research’s value.)

Of course, most brands are not the name of a public company and many do not merit a premium, so other measures are often needed. It is certainly enough for ROI calculation purposes to agree on a key attribute or two (“a high quality brand,” “a brand I trust,” “a brand for people like me,” etc.) and use gains over time among specific target segments as the way to assess changes in brand equity either based on specific exposure to a communications or new service or in the aggregate on an annual basis.

The brand equity must be converted into money if it is attitudinally-based. This requires assumptions as to the economic value of a more valued brand. These metrics (customer asset value and brand value) can be used independently or together. Similarly, employee value can be used as well for internal research projects. As noted, these metrics can be used to assess the impact of a specific decision on targeted segments or on an annual basis to gauge the overall impact of market research in trying to improve the overall value of the enterprise.

Two points should be considered in the annual approach:

1. Marketing, sales and research can logically be evaluated together since they all contribute to how customers interact with the enterprise and the brand(s).

However, this is only appropriate where they team extensively and where research is embedded into enough of the marketing and sales decisions to make inclusion fair and reasonable. Otherwise, the measurements should be focused on issues that are more clearly the realm of research (e.g., using attributes such as “The enterprise - and/or brand - really understands me,” “it anticipates my needs,” “it communicates to me effectively,” etc.).

2. The aggregate approach has the advantage of allowing a research department to include non-decision focused research while keeping focused on the bottom-line. Knowledge-seeking studies can be justified by the long-term benefits of increasing insight into the future customer, employee and brand which over time increases the customer, employee and brand value even if such studies can’t be linked to a specific decision.

Identifying discontinuities

Perhaps it is an ideal at this time, but researchers and management could also estimate the value of having “no surprises” or, even better, correct identification of a discontinuity in the environment. The comparison point could be the performance of a relevant benchmark; for a major company, the comparison might be the average Fortune 500 firm’s performance over the next decade. Over two-thirds of those on the original list less than a half Century ago have faded from existence today. If the enterprise in question fares better than these competitors and research is an active participant, then there is a good inference of a positive ROI from research techniques focused on the future.⁴

Finally, in thinking about the metrics, it’s worth recalling the “generally right” dictate that the measurements are directionally correct. Whatever the metric(s) selected, it is important that:

1. Management, researchers and relevant others agree in advance on the metric(s) and measurement techniques.
2. The metric(s) be relatively simple and not overly expensive to develop and use.
3. They should be repeatable over time.

E. Relate the Cost of the Research to the Potential Value of a Better Decision

Value-driven research must ensure that the research contributes as efficiently and effectively as possible.

The cost of research is not hard to compute, though there is the need to add the value of time employees spend on research projects to the out-of-pocket costs.

For any significant research project, it is recommended that the research team estimate the potential economic return in advance to assure that the enterprise is likely to receive a positive ROI from the project. There is no set standard here. An enterprise might decide that the ROI estimate must be positive above a margin of error. Others could decide that if the upside is high enough, it is worth pursuing.

In any event, the value of the potential research should be expressed as a range since it is impossible to accurately pinpoint the value without working through the whole process. One possible, and useful, result can be scaling back the research in one of two ways. First, there can be a staged approach. For example, a set of focus groups might be used to preview what might be learned in a survey and then, depending on the qualitative findings, the ROI estimates can be sharpened. A second possibility is to accept less precise results. If the value of the research does not clearly outweigh the costs (and if one can accept a larger margin of error in projecting results) then a smaller sample size could be used if they make the ROI more positive by lowering the cost.

For the above, as with metrics, the key here is a meeting of the minds between researchers, marketers, and top-level management. A set of thresholds might be used (e.g., if the decision does not exceed a certain level, major research should not be conducted).

F. Delineate How the Knowledge and Learning Will Be Used to Increase Research ROI

The key step is to ensure that the total value is captured. First, as noted earlier, it is important to focus on a decision and how the research will explicitly be used in that context. Beyond that – and certainly for broader inquiries – it is vital that key learning from any study be recorded in some manner for posterity. Some enterprises use Knowledge Books to summarize what they know.

According to Medini, Charlot, and Chaillot (2001), "A knowledge book is a collection of diagrams drawn according to several sets of rules, each of which represents a specific point of view. Those points of view reflect know-how and knowledge related to a particular domain. The commonly used sets of rules are activities, tasks, concepts, and physical processes, but other sets of rules can be defined or used in knowledge books, depending on the project's requirements."⁵

Computing ROI is important to signify the value research can bring, but it is first necessary to use the research to derive some benefit. Similarly, while broader

learning about markets and marketing is often just a byproduct, it will be lost if it is not captured in some way. There is often more latent value in basic consumer or marketplace learning applied later than there is in the value of a better decision today.

Finally, all the learning should be captured so that a full post-audit can be done on the ROI. It can be helpful to look back a year or so after a major study and reassess the value as one observes the decision(s) made and also how the learning may have started to help in other directions. Formation of an oversight group (perhaps a Marketing Knowledge Team) is a good method to build-in the discipline of maintaining a Knowledge Book and rigorously assessing what has been learned and how the insights have (or haven't) been used to improve marketplace performance. A rigorous and ongoing scrutiny into ROI will make research ever more valuable – which is why the process is useful even if the numbers produced are not as rigorous as the marketing scientists might prefer.

Guidelines for Market Research

3. The Research Plan

A. Introduction

Research projects are conducted to address a wide range of possible objectives—both strategic and tactical. The design of the project needs to be consistent with the objectives, for the project to be of value to its sponsor. It is the role of the professional researcher to ensure that this is the case.

The research plan is often externalized in the form of a proposal. The specific plan may be part of a broader set of research activities that is being planned to address the business issue. In such a case, it is the responsibility of the researcher to incorporate that specific component into a larger plan of action.

The specific proposal should specify: the population under study; the sampling frame; the composition of the sample; the proposed data collection method; the rationale for the choice of data collection method; the geographic boundaries of the study; and the timing of the project. If quota sampling is used, the specific quota groups to be filled, demographically or otherwise, should also be enumerated within the proposal. In the case of low-incidence projects, estimated incidences should be included. All of these elements should be specified in the plan document, regardless of whether or not the project is quantitative or qualitative in nature.

These elements of the plan should also be included in the eventual output of the project, such as presentation decks, or written reports.

Issues which relate to the research plan therefore include:

1. Was the overall concept and design of the study sufficient to accomplish the objectives?
2. Was the context of the study adequately realistic?
3. Was the timing of the study appropriate for the objectives?

B. Ensure that Study Concept and Design Will Fulfill Objectives

Research design is an art as much as it is a science, and several alternative approaches may satisfy the objectives of the study. To assess the research design is to compare alternative approaches in order to judge if the approach selected is sufficient, given the constraints of time, budget, the potential value of the results, and the potential risk of incorrect information. It is important to recognize that different measurements yield different types of data and are amenable to different kinds of analysis. Study design should ensure that the data and analysis implied by the approach selected are appropriate to the research objectives. Overt linkage to the objectives can help instill confidence for the client.

Research projects can be classified many ways, but one useful way is to categorize projects in terms of their objectives – as either strategic in nature, or tactical. Strategic projects include: segmentation studies; market studies; brand

equity studies; behavioral tracking of market shares or media; and many qualitative projects, particularly when conducted as part of segmentation projects. Tactical studies are usually those conducted in order to make specific decisions, and include: copy tests; ad tracking studies; many media studies; product tests; service evaluations; customer satisfaction studies; pricing studies; simulated test markets; test market audits; or a variety of other research designs employing experimental designs.

In either type of project, the objectives need to be specified in the plan document, but the nature of the objectives themselves will differ widely. Strategic projects may be larger in scope and in cost than tactical projects and may take longer to accomplish. The researcher will need to be clear in the plan about how the balance between the cost and timing and quality will be maintained in the project, while also properly addressing the study's objectives

As noted in the previous chapter on ROI, the specific calculation of a given project's value may or may not be feasible. Projects should, nevertheless, always be conducted with ROI in mind. If the costs of a poor decision are high, or the strategic implications of the potential learning from a project are great, the project will automatically have greater value to Management. Its strong ROI will follow commensurately. If, on the other hand, it becomes clear during the planning stage of a potential project that its value or impact will be minimal, then the project should either be designed to adjust to this reduced value, or not conducted at all. In other words, research requires the expenditure of both time and money. Those often-limited resources should always be focused on those projects and activities where research will have its greatest impact.

When recommending a data collection mode, the researcher will need to carefully weigh the pros and cons of each. Some methods, such as online, may have advantages over others, such as door-to-door, in timing and/or cost. However, a door-to-door data collection method may offer the researcher a sample that comes closer to a probability sample. The researcher needs to clearly specify the rationale for choosing the recommended data collection method in the plan. The research methodology may be constrained by the country in which the study is to be conducted. For example, door-to-door is increasingly difficult to execute in the US, while it may be preferred in Mexico.

It is preferable to identify the study's sponsor as part of the interview. Response rates are typically higher and respondent cooperation greater when the study sponsor can be identified. However, for many studies, there may be a concern that sponsor identification could bias the results. This issue should also be carefully considered when designing the study and should be specified in the plan document.

C. Balance between Realistic Study Context and Need for Control

Advertising and marketing researchers may adopt a questioning procedure and use a person's memory to assess past behavior, or they may choose to create a test

situation in which behavior can be measured or estimated. If a test situation is to be created, behavior is ideally measured under “real-life” conditions where people react, respond, and make decisions in a situation that is similar to that in which the consumer normally interacts with the marketing product or activity under study and without consciousness of being measured. For the most part, this is not feasible, primarily because “real-life” conditions inherently involve many unpredictable and, therefore, uncontrollable variables which make it difficult, and often impossible, to measure the subject behavior. This need to exercise control over the situation while mimicking “real life” makes the practice of marketing research and, specifically, the use of experimental design, necessary.

In examining research that involves a departure from “real life” conditions, consideration should be given to the degree to which the measurement is based on an analog of actual circumstances: Did the conditions adequately reflect “real life” or offer choices to respondents that correspond to the kinds of decisions that they might normally make? In other words, to what extent do the conditions of the study relate to the actual situation of the market? Does the trade-off between experimental controls for reliability of measurement and the departure from reality limit the actionability of the measurement? In applying the experimental designs, are test conditions evident to the respondent, thereby introducing the possibility of response bias? To answer these questions, one should attempt to include in the research method a validity check that detects departures from “real life” respondent experience.

The most-common method of performing this function is to conduct a pre-test of the questionnaire, in which a small number of respondents are interviewed, prior to going “live” with the study. In this way, the researcher can judge the extent to which the study design is adequately simulating the conditions being addressed in the research.

These issues often come into play when the purpose of the study includes a stimulus which the consumer is exposed to in the real world. For example, if measuring media, is it possible to measure consumer preferences in a way that will not interrupt or bias the consumer’s normal media behavior? When testing products, is it possible to allow consumers to use products in an in-home setting? When testing television commercials, can in-home TV exposure be included in the design, or at least adequately simulated? Examples of validity checks might include: is the amount and nature of the media or product usage behavior in the test similar to that measured via standard, unobtrusive measurement systems?

In such cases, it may be both worthwhile, and necessary, to check some preliminary measures against independent measures of truth, prior to fielding the full study. In this way, the researcher can cross-check whether or not the research about to be undertaken is likely to adequately satisfy the expectations of its value and projectability.

D. Appropriateness of Study Timing for the Objectives

The period of time when the study was conducted can have a profound effect on the value or meaningfulness of the data. For example, biases may arise because of seasonality, day of week, or time of day in which data were gathered. In addition, the accuracy of responses in a study will be affected by the time interval between the study and the event being measured. Is copy effectiveness being measured at the height of GRP delivery, or is there a lag between ad delivery and the point of measurement?

When conducting tracking studies, it is generally preferable to perform behavioral measurements, or conduct interviews, on a continuous basis, rather than in periodic waves of interviewing. This is particularly the case where consumer exposures to stimuli, or their reactions to those stimuli, might vary over time, such as from day to day, or from week to week. If less-than-continuous interviewing proves to have cost advantages vs. continuous interviewing or is more aligned to the campaign expenditure and timing, the research plan should clearly spell out the pros and cons of the design options. Oftentimes the continuous approach that is used in the United States is not appropriate for smaller geographies with low and/or sporadic ad spend.

-

4. Respondent Considerations

A. Introduction

A critical challenge in research is talking to enough of the right people. In the next chapter we discuss sampling issues that affect the definition and selection of the “right people” and the means of obtaining the “right number” of people to survey. Here we address how to secure the cooperation of the people that we wish to have participate in the research, and why this is so critically important to producing valid research.

Before the escalation of telemarketing, and increased research contact attempts that characterize life in many developed countries today, it was common for market and opinion researchers to achieve 60-80% response rates in surveys. The ARF, AAPOR, and other associations regularly urged their members to pursue the goal of a 100% response rate. Low response rates mean that the research is more susceptible to sample bias due to inadequate response from some segment(s) of the desired sample universe. Additionally, reducing sample non-response bias lessens the variability from one survey to another.

B. Detractors to Respondent Cooperation

Today, the response rate for most market research surveys is less than 20%, according to an analysis of 544 surveys reported by participating companies conducted by the Council for Market and Opinion Research (CMOR). The average response rate for 256 random-digit-dialing telephone surveys was only 13%. This is a disappointing level of response and one which many professionals are working to improve. We urge the readers of these Guidelines to work with CMOR or their local associations to improve respondent cooperation.

Social trends

Several social changes have been suggested as likely to dampen respondent cooperation: a decline in trust in institutions; increased concerns about privacy; decreased respect for authority; an increase in the number of married couples with both spouses working; an increase in the length of the average work day; and more work brought home.

Technological barriers to respondent access

In the United States there has been significant growth in the use of telephone answering machines and caller ID services. According to a recent consumer survey by CMOR, over half of the respondents reported that they screen some of their telephone calls. In addition, cell phones are growing in use as a primary telephone, and cell phone users are far less likely to participate in a survey when they are paying for the call.

Telemarketing abuses outlawed, but continue

Many potential respondents have refused to participate in telephone surveys because they mistook a survey request to be a telemarketing pitch, particularly in the US, where telephone interviewing dominated the survey research fieldwork for over two decades.

Although many national and local jurisdictions have passed laws against selling or fund-raising under the guise of research, the practice continues. Consumers and lawmakers alike express outrage at the practice; however, the potential for punishment does not seem to be a sufficient deterrent.

Telemarketing do-not-contact lists have been legislated in a growing number of national and local jurisdictions, and consumers often fail to understand that these laws do not apply to legitimate research contacts. Researchers should diligently inform the public of the actual intent and extent of such legislation where it is established.

C. Researcher Abuses

Consumers in developed countries are frequently and increasingly requested to participate in a survey. Those increased demands have reduced respondent willingness to participate. Respondents are also turned off by poorly trained interviewers who misread questions or who inadequately answer questions. Overly-long or poorly-written surveys are irritating to respondents. People who terminate a survey because they find it an unrewarding experience are less likely to want to cooperate when asked to participate in the future.

D. Supports for Respondent Cooperation

We offer here and in Chapters 6 and 7 some steps that should be taken to attain higher levels of response rates.

Conduct detailed interviewer training

One of the most important steps necessary to help increase respondent cooperation is to ascertain that all interviewers are properly trained. Training should include:

1. Opportunity for each interviewer to carefully read and digest the screening and main questionnaires on their own
2. Sessions with interviewers at which the field supervisor, the research project director, or the client research person review each item in the screening and main questionnaires, typical respondent questions concerning them, the questionnaire flow, skip patterns, and answers to all interviewer questions concerning the interview
3. Interviewer practice in the roles of interviewer and respondent under the supervision of the field supervisor.

Monitor a sample of actual interviews

Interviews should be monitored to assure that not only is the interview proceeding properly, but that the interviewer is conducting it in a way that facilitates completion. Any problems should be addressed and corrected as early as possible in the conduct of the study.

Addressing respondents' privacy concerns

Respondents participating in a survey should be assured that their personally-identifiable information will not be shared with anyone. The CMOR "Respondent Bill of Rights" offers a useful model agreement between researcher and respondent (see Appendix 1).

Keep respondent goodwill in mind

The primary driver of interest in a survey is the relevance of the topic(s) to the respondent at the moment of contact. Shorter, more interesting sentences, as well as shorter questionnaires, will result in higher completion rates. Respondents treated in this way will be more likely to agree to participate in future surveys.

Response rates are higher when respondents are told the purpose of the study, the name of the sponsor, and the length of the survey. While it is not always possible to inform the respondent of all of these aspects of the survey in advance due to the potential for biasing the respondent's answers, it is seldom the case that some pertinent information cannot be shared with the respondent.

The opportunity to be helpful, to compare one's own opinions with those of others, or to make one's needs or thoughts known to leaders in business or government are often motivating to respondents. Interviewers should acknowledge the utility of such contributions, as it makes the respondent feel valued for their participation.

When interviewers inquire about the convenience of the timing of the call, and offer alternative times, respondents are more likely to feel that their time is valued. This and other useful tips are provided in the CMOR model opening and closing statements included here in Appendices 2 and 3.

Respondent incentives

Incentives can take various forms. Frequently, cash or items of established value are used as incentives.

Most incentives are based on simple participation – not completion or accuracy. However, we encourage researchers to explore the use of incentives for completion and accuracy as well.

Differential incentives are sometimes offered where compliance is more difficult to attain. Higher incentives should be tested to be sure they do not introduce bias.

E. Measuring and Reporting Response Rate

An important summary measure reflecting the adequacy with which the sampling plan is carried out is the response rate for the study.

The ARF defines a response rate as, “The proportion of sampling units originally designated for the sample that actually provide information for the research. In other words, the response rate is the percent of pre-designated units that are in the tabulated sample.”⁶ For purpose of this guide we define a response rate as *the number of in-tab interviews divided by the number of eligible units in the sample*. The formula for telephone and personal surveys shown below is a modification of AAPOR’s formula⁷ for calculating response rates:

$$RR = I / I + (R+NC+O) + e (U) \text{ And: } e = I / I+SO$$

Where:

- RR** = Response Rate
- I** = In-tab interviews
- R** = Refusals and break-offs
- NC** = Non-contacts
- O** = Other non-interviewed eligible cases
- U** = Unknown eligibility cases
- SO** = Screen Outs
- e** = Estimated proportion of cases with unknown eligibility that are actually eligible
(To calculate **e**, assume that the proportion of eligible and ineligible cases among those whose eligibility status is known applies to those whose eligibility is unknown. See above.)

Information needed to calculate response rates

1. The total number of interviews included in the tabulation of the study. **(I)**
2. The number of refusals and break-offs broken out (if known) by eligible, non-eligible, and eligibility unknown. Eligible cases go to **(R)**; non-eligible cases go to **(SO)**; and cases of unknown eligibility go to **(U)**.
3. The number of cases in the designated sample or list that were not contacted broken out by known and unknown eligibility. The number of non-contacted eligible cases goes to **(NC)**; the number of non-contacted cases with unknown eligibility goes to **(U)**.
4. Other cases known to be eligible but not interviewed. **(O)**
5. Non-interviewed cases whose eligibility is unknown. **(U)**
6. Cases known to be ineligible based on screening criteria. **(SO)**
7. Recommended disposition of frequently occurring conditions
(See AAPOR’s *Standard Definitions*⁸ for more detailed dispositions.)

Language Barrier: Treat as eligible only if survey is to be projected to a population including the language involved and place in **(O)**; otherwise place in **(SO)**.

Non-working phone numbers or no housing unit at location: Treat as ineligible and place in **(SO)**.

Fax/data line: Treat as ineligible and place in **(SO)**.

Because of the potential bias introduced by non-response, it is desirable for the study design to include an estimated response rate and provisions for overcoming non-response. Response rates are dependent on many factors including, but not limited to: the number of callback attempts to designated sampling units; the rotation of the days of week and times when callbacks are made; the topics covered by the survey; the length of the interview; the training of the interviewers; the amount of exposure respondents have had to previous surveys; and the incidence of the type of respondent with which the study is concerned.

The ARF-published study Arrowhead #12 “The Effects of Interview Attempts on Survey Results” may now be somewhat out of date given the recent growth in call screening and the general decline in response rates over the last decade. However, Arrowhead #12 found instances of significant under- and over-estimation, in certain instances when comparing respondents reached with fewer callbacks to those receiving more calls. Under- or over-estimations usually occurred when the subject matter being measured is related to the means of accessing the information. For example, questionnaires related to travel plans when conducted by telephone are likely to find different responses among those reached in fewer calls than respondents reached by additional calls because of the “Away-from-home” factor. The same is true for attempts to reach teenagers. Topics of general interest were found to be less sensitive to the number of callbacks necessary to arrive at stable findings.

F. Respondent Rights (ethical and legal)

Respondents should be advised that their participation in a survey is purely voluntary, and their identity will be kept anonymous. If a respondent chooses not to participate or to cease participation in a survey, his/her choice must be respected. If a respondent requests that his/her responses be eliminated, that request should be honored.

Many countries have laws that protect respondents’ privacy by limiting what personally identifiable information can be collected and preserved and under what conditions. It is important for researchers to be well informed about the privacy laws in effect in the country in which they are conducting research and to document the procedures needed to maintain compliance.

While the research suppliers involved must take the responsibility, it is highly advisable that the client also play an active role in complying with all applicable laws.

Guidelines for Market Research

5. The Sample: Design and Execution

A. Introduction

Numerous sources of inaccuracy in survey research lie outside the sampling process, and these will be dealt with in subsequent chapters. Consequently, there may be, sometimes, a tendency to overlook inaccuracy in sampling and to focus on the imprecision or random variation that sampling designs may introduce. In these guidelines, we want to address both inaccuracy, or bias, and imprecision.

Bias is introduced into sampling when the design involves an improperly- or inadequately-defined population for the business problem being addressed. For example, a study that addresses declining spending per customer by interviewing only current customers who spend more than a certain amount introduces bias by ignoring both former customers and customers who have reduced their spending. In addition, a sampling process that favors some sampling units over others has the potential to introduce bias.

The quality control processes and statistical tools that guide much of the practice of sampling design and execution originated in processes developed in manufacturing and agriculture. While these processes and tools are critical to our ability to make statistical inferences, it is often difficult to meet the conditions upon which they are predicated. In marketing research, we are seldom talking about stationary subjects such as automobiles or apples; rather our subjects are typically live, mobile, thinking, opinionated, often indecisive, and frequently uncooperative human beings. Such realities make the task of achieving a desired sample, to say the least, difficult. In the more-developed, western economies we have observed a high and growing level of non-response to survey inquiries, as discussed in the previous chapter.

Many people in the United States refuse to participate in market research because they often confuse it with telemarketing with which they are bombarded. Then, too, many people have been frequently exposed to survey requests and have tired of responding. A growing proportion of the populace in developing countries travel frequently and are less available at home to participate. Additionally, there is a growing use of answering machines and caller-identification systems to screen out unwanted calls. This practice is clearly adverse to telephone survey participation.

While people in less-developed countries may be more than willing to participate in market research studies, tools for developing sampling frames, such as area maps, telephone books, and tax or other community records from which to draw a quality sample may not be readily available to the researcher. In the final analysis the goal of sampling is to secure the best sample possible given the conditions in each country. Use of a random sample of sufficient size and an acceptably high

response rate will permit the researcher to project findings to a population at known levels of accuracy. The researcher must completely describe the sampling method employed in his or her report and indicate the sample quality as well as any limitations of the study created by any sampling deficiencies. This chapter describes the major elements of probability sampling that permit inferences to be drawn about a defined universe or population. In addition, it discusses non-probability sampling and special sampling considerations for qualitative and online surveys.

B. Defining the Population or Universe of a Study

Every sampling procedure entails drawing a sample from a defined population. Generally, the term *population* is used in marketing research for the consumer or business category or categories to be represented by the study. The *population* definition should be as tightly defined as possible and should directly reflect the target population, such as "18-49 year-old females who have purchased instant mashed potatoes in the past month" or "design engineers who have specified a high-strength engineering plastic in the last 12 months." A given survey may have more than one population of interest.

The *population definition* should correspond closely to the key prospects, customers, or target audience(s) who are the focus of the business issue or inquiry.

The "tightness" or specificity of the population definition usually has a significant influence on the cost of the study — the more restrictive the criteria, the greater the cost. Nevertheless, the population should be defined to address the appropriate target audience for the purposes of the marketing problem. The value of properly specifying the population will outweigh any extra costs associated with it.

C. The Sampling Frame

The sampling frame for a study provides the means of access to the defined universe, enabling the identification of sampling units. The sampling units for a study are the means by which we enumerate specific people, families, households, cluster of housing units, retail stores, business firms, or other entities selected to represent the universe for the study.

The sampling unit is the specific entity – person, family, household, cluster of housing units, retail store, business firm, etc. – chosen to represent the study population. The sampling frame is the vehicle used to draw the sampling units. It may be a list or set of files, such as telephone directories, files of charge-account customers, or subscription lists. It may be a set of maps along with population counts for units that can be located geographically. It may be traffic flow records, such as transactions at a supermarket checkout.

Since the sampling frame is the basis on which the sampling units are drawn, it must be appropriate for the defined universe and must be as complete and current as possible. Sampling frames are generally imperfect, requiring that procedures be built into their use to correct for the imperfections. Maps may be out of date and not show new housing developments. Telephone directories exclude people without telephones and people with unlisted numbers and include numbers that dial fax machines and computers. Lists of customers and subscribers include names and addresses that are incorrect, incomplete, or otherwise unusable. When telephone directories are used as the sampling frame, Random Digit Dialing (RDD) procedures are often used to reach unlisted numbers. But even RDD excludes people without telephones, which is a problem if the population is not defined by telephone ownership.

Sometimes a population is completely enumerated, as in all the employees of a company or all the graduates of a university. In such cases no sampling frame is required. The sampling units can be selected directly from the enumeration.

D. Probability Sampling Methods

It is desirable and conventional to use a probability sample for any survey which is designed to estimate or project, within determinable error margins, the absolute incidence and dimensions of a characteristic or behavior within a defined population—for example, to estimate the number of adults who drink wine coolers in a selected country; or to estimate the percentage of persons who watch television on the average evening. A probability sample provides a basis for making objective statistical inferences about the population from which the sample was drawn.

As a more specific example, with a probability sample, it is possible to state that a survey has determined that 10 % of the population reports usage of wine coolers and that this estimate is accurate within a margin of plus or minus two percentage points at the 90% level of confidence.

Non-probability samples are sometimes used when the goal of the study is to provide a relative comparison rather than an absolute estimate of a characteristic or behavior in the population, within a known margin of error. For example, non-probability samples are often used for small-scale studies designed to explore reactions people have to a new product idea or brand perceptions that people obtain from a new television commercial. Non-probability samples are also sometimes used in large-scale studies designed to track characteristics and behaviors over time in a defined population, where the goal is not to measure the absolute incidence at any one time, but rather the direction of change in the prevalence of some characteristic or behavior over time, e.g., changes in brand usage or consumer attitudes. It has to be understood that measures of such changes using a non-probability sample cannot be projected to the population.

The statistical procedures that permit the researcher to assess the degree of precision and bias associated with a probability sampling procedure are not applicable to non-probability samples. Consequently, where non-probability samples are used, external validation of the measures produced in the survey are required, together with more extensive statistical analysis. For example, a purchase tracking measure in a survey using a non-probability sample might be validated against an external criterion such as volume estimates from retail sales or manufacturer shipments data.

E. Procedures for Selecting Units from the Sampling Frame

In probability sampling, once a sampling frame is established, sampling units – the individuals, businesses, households, etc. – are selected from that frame such that each unit in it has an equal or known probability of being chosen. For instance, the sampling unit may be a household, and the unit of analysis may be an individual living in the household. In this case the probability of selecting a given individual is not known in advance, because the number of people in the household is learned when the household is contacted. However, that number is obtained in the course of the fieldwork, and the probability can then be determined.

Generally, when the frame is a list of some sort, all units are numbered consecutively from one until the end. The units to be included in the sample are selected from a table of random numbers. When maps are available, starting points again must be selected so that each has a known or equal opportunity to be included. When telephone books are used as a frame, the starting page and beginning name on that page can be selected randomly and a skip pattern can be established through the book to obtain the sampling units.

There are many ways to select sampling units. Each procedure has specific cost and precision implications that should be taken into account in planning research. In this area, it is also important to recognize the relationship between the mode of interviewing and sampling selection. The mode of interviewing has to be appropriate to the accessibility of the sample universe.

F. Assuring that the Sampling Plan Is Fully Executed

The sampling plan may call for a distribution of interviews across time, geography or some other specification. In executing the plan, care must be taken to ensure that it can accomplish the distribution specified. The execution of the distribution should then be checked, from the fieldwork and an examination of the in-tab sample for:

1. Control of the sample selection by the central office of the research company
2. Distribution of the in-tab sample
3. Size and completion of sampling clusters

G. Evaluating the Adequacy of the Sample Size

The adequacy of a sample size in any study is associated with the type of behavior measured, the information goals for the study (for example, how many subgroups to be isolated and examined), and the estimated precision required in the study results. Decisions about sample size in a study plan may be affected by considerations of time and cost.

The adequacy of the sample size for probability samples can be gauged by standard error statistics for estimates derived from the study. For many probability sample designs, the standard error of the estimate is inversely proportional to the square root of the sample size. The smaller the standard error, the greater is the precision. However, not all sample designs are equally efficient. Other features of the design, such as stratification or *clustering*, can increase or decrease the degree of precision. Given a desired level of precision, the size of a sample necessary to achieve it can be obtained by using the same standard error statistics.

In some studies there is disproportionate sampling or supplementation of the sample in order to provide a sufficient number of cases representing a particular subgroup. In such cases, the size of the general sample without over-sampling, the size of the subgroup sample, and the equivalent simple random sample size all should be reported.

H. Designating the Respondent to Be Included in the Study

The research plan may specify that a single respondent in the household be selected when more than one member of a household qualifies for participation. An example would be the case where the objective is to interview one gasoline purchaser in every sample household when more than one person in a selected household is a driver. In such circumstances, a method must be developed and clearly communicated regarding which driver should be selected.

In probability samples, great lengths are taken to ensure probability selection of households, but it is also necessary to select the respondent from within the household on a probability basis. There are various techniques for doing this. The "next birthday" system is one such technique. In this system, the interviewer requests to speak to the individual in the household (who is otherwise qualified) whose birthday is next. This individual becomes the designated respondent. If that person is not at home, callbacks must be made until he or she is reached.

To fulfill the objectives of a research project, the best person to be selected in the household may not be the person whose name is provided in the list used to develop the sampling frame. For example, when a survey is conducted among customers of a service company (telephone, utility, etc.), the name of the "customer" may not necessarily be the name of the best-informed respondent or "main user" of the service. Therefore, it would be necessary to screen for the person in the household with the greatest familiarity with the service.

I. Incidence Rates and Their Relationship to Sampling Measures

Incidence is the percentage of persons contacted by an interviewer who meet all of the screening criteria for the survey, whether or not they actually agree to participate. Many people decline to participate before they can even be screened and therefore are not included in the incidence figures. In the example below, incidence is 50%, even though only 25% of those approached were actually interviewed.

Total contacts	5000	
Initial refusal	2500	
<u>Total screened</u>	2500	
Not qualified	1250	
<u>Total qualified</u>	1250	← Incidence = 1250/2500 = 50%
Qualified but refused/not interviewed	250	
Completed interviews	1000	

Every survey cost estimate makes an assumption about incidence, and most proposals explicitly state the incidence assumption. In order to minimize "unpleasant surprises," the incidence estimate should be as accurate as possible. Some common misconceptions about incidence are:

Market share or Brand Development Index (BDI) is an indicator of incidence
Market share is based on units or dollars, not people. A brand that appeals to heavy users of a category may have a high share but low incidence. Additionally, the incidence of a survey of the category itself has to be considered. For example, a survey of a brand with a high share of the ketchup category would most likely have a higher incidence than a survey of a brand with a high share of the dry cat food category.

Syndicated media studies are a good indicator of incidence

This is often wrong. Generally speaking, these surveys employ very general definitions of category and brand usage, such as use in the past year or "Do you use?" Incidence figures may well vary considerably from such studies, based on the actual questions to be used in a customized survey.

A more complete discussion of incidence is found in Incidence Guidelines, a joint publication of the Marketing Research Association and CASRO. This book is available at nominal cost from either organization.⁹

Some incidence parameters, especially for demographic criteria, can be found in Census data and other published secondary sources.

J. Exclusions and How to Treat Them in Sampling Calculations

In both probability and non-probability samples the researcher may wish to specify certain potential interviewees to exclude from eligibility in a study.

Most projects exclude certain respondents for *security reasons*. For example, the respondent may be excluded if members of the immediate family are employed in

advertising, marketing research, media, or a specific industry covered by the nature of the research.

If commercials, magazines, concepts, or packages must be read, it is best to exclude respondents who wear glasses, but do not have them at the time of the interview.

Past participation screening is important in order to avoid the use of "professional respondents" who "learn" the research process and therefore may not provide unbiased answers. Typically, potential respondents who have taken part in a research study that is not a political poll in the past three or six months are excluded. Specific exclusions will affect the net incidence of qualification, and, therefore, the cost of the data collection.

To prevent the use of "professional respondents," databases can be developed of respondents who have too frequently participated in research.¹⁰

K. Quota Samples

Many non-probability marketing research studies are conducted using *quota samples*. The sampling plan for such a sample specifies that certain numbers or percentages of various classes of persons are to be interviewed. As an example, a 50/50-male/female ratio or a certain age distribution would be specified.

Quota samples are used in non-probability sample studies to assure that the sample matches known characteristics of the population under study such as distribution by age, education, sex, ethnicity, or product category usage. The source of these known characteristics of the population may be US Census data, a syndicated survey based on a probability sample, or a proprietary study employing a probability sample. Demographic quotas are of vital importance in mall intercept studies because of the demographic skew of most malls.

A critical issue is the number of characteristics to be included in the quota sample since the inclusion of too many will make it difficult to obtain the desired sample. Therefore, care should be taken to specify only the most relevant characteristics for which quotas must be obtained.

The selection of samples based on population demographics only will not necessarily ensure that the samples will have the same proportions as the population on *other key characteristics* such as psychographics/attitudinal profiles or brand usage. This may be a very important consideration when one is trying to segment the market on the basis of psychographics, lifestyles, or product/service benefit dimensions.

L. Special Considerations When Conducting Sampling for Qualitative Research

Qualitative research, a research technique that primarily employs non-probability samples, is now considered a well-developed and valuable research method in the market research field. Mariampolski gives an excellent description of this approach as "research (that) seeks the meaning and motivations behind behavior

as well as a thorough account of behavioral facts and implications via a researcher's encounter with people's own actions, words and ideas." At the same time he cautions that, "qualitative analysis is grossly inappropriate for a variety of applications and issues best studied through other means. Estimates of market size, projections of market acceptance and optimal pricing for a product are examples of important questions which require probabilistic methods." ¹¹

Sampling in qualitative research is simply a matter of recruiting the desired types of respondents. The definitions of those respondents flow from a clear understanding of the objectives of the study. Suppose, for example, some possible consumer reactions to a change in a cell phone design are the objective. Then, men and women over the age of sixteen who are considering their first cell phone and those who currently own one may be appropriate subjects.

Subjects may be recruited by any one of a variety of systems any one of which has its pluses and minuses. These include:

Databases

Recruitment companies and qualitative research facilities usually maintain databases of people covering demographic and many other characteristics. Properly used, this approach can supply access to a variety of different types of potential qualitative research participants. However, care must be taken not to overuse individuals from databases lest they become "professional respondents" who are too anxious to please, are primarily interested in the incentive, and therefore may provide misleading information.

Commercial and client lists

Often clients have lists of the types of persons they wish to study. Commercial lists containing different types of people such as owners of various makes of automobiles are also available in many countries.

Referrals and recommendations

Sometimes current participants recommend friends or acquaintances that fit the research qualifications. The researcher must take care here that individuals with the same points of view and value systems are not overly represented. In cases where needed respondents are of a rare type, this method is particularly useful.

Intercepts

In this technique recruiters approach potential participants in malls or other heavily trafficked areas. It has the virtue of "sight" recruiting that permits people of obvious characteristics such as age, weight, height, presence of children, to be approached when needed.

Random calls

Of course, people can be recruited through the use of random telephone calls. However, it is costly and time consuming.

M. Special Considerations When Sampling Online

At the present time, sampling for online research is confronted with two major threats to quality:

1. The potential lack of representativeness of an online sampling frame for a population which includes individuals who are not online
2. The difficulty in selecting a random sample for an online survey

Challenges to the representativeness of online samples

Online participation varies by country, age, and income segments today. Consequently, when the population under study includes people without online access, the sampling frame will not represent fully the population of interest.

At some point in the future, we expect the penetration of in-household and in-business Internet usage to grow to a large enough proportion of the population to become “representative,” much as telephones have in the United States and Western Europe with over 90% household penetration.

Today, there are cases where the population of interest is itself limited to the users of certain online services, portals, or websites, and the online sampling frame is not an issue. For example, suppose AOL is interested in AOL subscribers’ reactions to and interest in purchasing a new service that they may offer. Since AOL has the e-mail addresses of all of its members, respondents can be randomly selected directly.

Challenges to obtaining probability samples

There are ways in which to obtain random samples of online respondents. One means is to recruit respondents, or a panel of future respondents, through offline means, such as mailed invitations or telephone contacts. Before we can draw random samples from an online sampling frame, we must uniquely identify the person, computer, or household of interest. Where email addresses are used as identifiers, the identifiability of a single person is highly restricted by the high percentage of the people online that use more than one email address. And the situation is made more intractable by our inability to measure the frequency with which each email account is used by that individual, or group of individuals.

Until these challenges are met, online samples are recognized as non-probability samples.

Some sources for non-probability samples on the Internet include:

Databases

Households or individuals are selected in conjunction with a database such as a large consumer panel. Potential respondents are first chosen based on their capability to access the Internet. A sampling frame is then developed from all of those having the desired characteristics for the study. The sample is selected randomly from the frame. This sample, however, is often not a probability sample since it may have been selected from a panel which itself is based on demographic quotas. Moreover, the proportion of persons originally designated for inclusion in the panel who agreed to participate is typically very low.

We recognize that some online survey services attempt to correct for the non-

random nature of the sample through weighting and projections systems based on demographic, attitudinal, and behavioral characteristics obtained in a separate survey using probability sampling. However, the use of such projection methods does not permit one to assess the error of the resulting estimates based on the probability sample-based statistical tools. Additional validation studies can address the predictive quality of the estimates, but only within the scope and quality of the validation program.

Websites

Some online surveys simply invite visitors to a website to participate in a survey. Those that choose to take part comprise a self-selected sample. Unless the resulting sample is somehow adjusted by variables related to the objectives of the survey it would be one of the least useful non-probability samples possible.

Email

The same is true of samples obtained by soliciting interviewees by email.

Owners of more technically oriented products and services are highly likely to have access to and use the Internet. Consequently, respondents to surveys involving such topics are more likely to be located via online research.

-

6 – Data Collection: The Questionnaire

A. The Definition of Questionnaire

The questionnaire is a vehicle for gathering structured, quantitative data from respondents to form the basis of subsequent statistical analyses of the information. It is the most important component of any market research survey.

B. The Purpose of a Questionnaire

There are two broad objectives to be achieved by the use of a survey questionnaire:

1. To accurately gather the required survey data from selected respondents to meet the client's informational objectives
2. To present as positive an image of market research as possible to the respondent such that they will not feel negatively toward the survey and have a high propensity to undertake surveys in the future.

C. Basic Types of Questionnaire

This document deals with active surveys, involving direct questioning of respondents. Other data collection instruments fall into what might be considered a passive category and include devices such as scanners, eye movement monitors, television meters, website cookies, etc.

Within the scope of active surveys, it is useful to think of questionnaires in terms of two basic objectives:

1. To screen and recruit an eligible respondent for a future activity such as a qualitative focus group or to take part in a more extensive survey which may immediately follow the screening and recruitment or occur at a later time
2. To administer a quantitative survey

There are three basic forms of questionnaire, each of which has variants:

Paper

These surveys may be administered in-person (face-to-face) by an interviewer or self-completed by a respondent – via the mail or at a specific location, e.g. following a hotel stay or transaction.

In-person interviewing is generally the best interview format overall, providing the interviewer is well-trained, and there is good post-interview editing. It facilitates longer interviews (up to 1½ hours with appropriate incentives) as well as the use of more complex questions and those requiring visual aids. An added advantage is that actually seeing the respondent can assist in screening, identification of miscomprehension and errors, and respondent fatigue. However,

this is generally the most expensive form of interviewing. In-person interviews are typically conducted in central location interview facilities, street intercept, in-home (a declining format), and place of work.

Self-completion interviews can either be in the presence of an interviewer or supervisor which offers the best control or remote. The latter is typical in the case of mail surveys and post-experience surveys such as hotel guest surveys. Self-completion surveys should be concise and with easy-to-understand instructions to avoid error and to encourage completion.

Telephone

These surveys may be administered by an interviewer either from a paper questionnaire or computer-assisted (CATI) administered via an automated system typically known as IVR (Interactive Voice Response).

Interviewer administered and CATI are by far the most common formats of surveys. In designing questionnaires for this format it should be borne in mind that respondents have to rely entirely on spoken questions and instructions that may not always be perfectly clear over the telephone. Surveys should be kept as simple as possible and generally not exceed 20 minutes due to potential respondent fatigue.

IVR is a relatively new and currently little-used format. It should generally only be used with a live interviewer introduction and screening to avoid high levels of refusal. IVR surveys should generally be confined to pre-coded responses easily entered via the respondent's telephone key pad and kept to a maximum of about 3 minutes total interview time. IVR can be expensive to set up, especially if it involves automatic voice response as opposed to key-pad entry; however, per interview cost is low.

Computer

These surveys may use the Internet – administered via an emailed invitation with an embedded dynamic link to a secure survey; or a website – administered via an intercept (pop-up) questionnaire at a site; PC (Computer Assisted Personal Interview - CAPI), kiosk, cell phone PDA, or similar hand-held device. These surveys are typically self-administered.

Internet surveys are the newest research data collection format. From a questionnaire perspective, while the underlying software can provide excellent quality control, the fundamental premises of self-completion questionnaires apply. Internet questionnaires should also be kept short (2-3 minutes for pop-up intercepts and 12-15 minutes for other surveys). Longer surveys are possible with good incentives although data quality may be jeopardized. Internet surveys are relatively inexpensive. All computer-based surveys should be designed in terms of complexity with the nature of the device, especially the screen display, in mind.

D. Basic Considerations

The following represent broad, overall issues to be considered in questionnaire development and deployment:

Honesty and respect

1. The questionnaire must be presented in an honest and objective manner.
2. Respondents must clearly, and as openly as possible, be informed about the nature and extent of the interview they are about to complete.
3. It must be made clear to respondents that their participation in the survey is, under all circumstances, entirely voluntary.
4. Respondents must clearly be asked their permission to participate.
5. Respondents must be treated with respect by the interviewer and by the nature, extent, and wording of the questionnaire at all times.

Respondent identification

1. All respondents' identities, and any survey information that could indirectly lead to discovery of their personal identity (or the identity of their company or organization in the case of non-consumer surveys), must be kept confidential. In this respect, a respondent's identity must not be conveyed to the client without the clear and explicit permission of the respondent. Note that this is critical with respect to international research and particularly European data privacy laws. In cases where respondent-identifiable information is required by a client for matching with existing data records (such as in the case of client customers), the relevant national and international code of practice (e.g., CASRO, ESOMAR, etc.) and all relevant national laws should be observed.
2. Respondents should be assured that their answers will be kept confidential.
3. Special attention needs to be given to identifiable information collected from children. All national, state, and local laws as well as other research industry codes of conduct need to be fully observed. In the case of Internet surveys, special attention needs to be given to compliance with the Children's Online Privacy Protection Act (COPPA) of 1998, which is applicable to anyone under the age of 13 years.

Disclosure

All undertakings made to respondents, including but not limited to, interview length, subject of survey, type of questions, tasks to be undertaken and other requirements, information privacy, subsequent (re)contact, and incentives /fees must be clearly stated in the questionnaire introduction/preamble and honored.

Questionnaire style

1. The questionnaire must respect the nature and extent of the survey objectives and informational requirements set by the client within the parameters suggested by these guidelines.
2. The style of the survey, its flow, subject presentation, question format, and language should be as engaging as possible to the respondent. This means that style, wording, visual aids, and general flow, as well as instructions (directly to the respondent or via an interviewer) should avoid ambiguity and irrelevance, and invoking boredom. The aim should be to cover the knowledge and agenda of the respondent as well as the survey objectives, to meaningfully engage and interest the respondent at the start of the questionnaire, and to continue this level of engagement throughout the survey. The aim should be to leave the respondent in a state of mind and cooperation that they would be willing to participate in another research survey in the future.
3. Questions and pre-coded responses should always:
4. Be clear and easily understood by the respondent
5. Ask one question at a time (i.e. do not compound a question such as “What do you think about the flavor and texture of this product?”)
6. Be phrased in a way familiar to the respondent’s way of thinking, within their frame of reference and using language that the respondent would normally use.
7. Avoid leading the respondent towards a particular answer
8. Be designed to meet the objectives of the client and result in interpretable data without subjectivity, introducing bias or compromising integrity.
9. Introduce sensitive topics with respect to their sensitivity and where possible via indirect means.
10. Provide the opportunity for a respondent to decline to answer the question.

E. Questionnaire Length

A questionnaire has to balance the need to meet the study objectives and client expectations, which often add to questionnaire length, with respondent interest and cooperation, which are often improved by shortening questionnaire length.

It is critical to obtaining initial participation in the survey, avoiding break-offs and promoting future cooperation in surveys that the preamble and introduction in a questionnaire clearly and honestly state the anticipated interview length.

It is realized that the length may depend on respondent qualifications, survey flow, answers to specific questions, and other factors; however, the respondent should be informed of the potential minimum and maximum length of the questionnaire.

To determine the minimum and maximum length of the questionnaire, the research company should ideally pretest the questionnaire in terms of all major

routing structures and flow patterns and in the environment in which the survey will eventually be deployed (i.e., a web-based survey should be tested on the web rather than using pencil and paper).

Questionnaire length will ultimately be determined by the need to meet the informational objectives agreed with the client. However, researchers should avoid long and overly repetitive questionnaire formats. It should be noted that during the questionnaire development, testing, and review process, length rarely decreases and more often than not extends beyond the originally agreed-on parameters. There is a tendency under such circumstances to deploy the questionnaire in this extended condition and “see what happens” rather than prioritize the informational requirements and trade-off that which is essential versus “nice to know.”

The following are generally accepted maximum survey lengths to deter the loss of respondent goodwill, the likelihood of a drop in data quality, and significant break-offs:

- Screening interview – 2-3 minutes maximum
- Telephone – 20 minutes
- Mail – 30 minutes
- Door-to-door (where possible) – 30 minutes
- Mail – 20 minutes of working time
- Internet – via email invitation to a survey website – 15 minutes
- Internet – intercept at a website via pop-up with interview overlaying the website (i.e.) respondent is not taken from the site – 5 minutes
- Internet – intercept at a website via pop-up with respondent taken to a secure survey website – 10 minutes.

While interviews beyond these times are possible, not only should careful consideration be given to their negative impact on response rates but also to the increased need for rewards and incentives for respondents.

Wherever possible, respondents should be informed at periodic intervals during the interview how much more time will be required of them. With Internet-based surveys this can be accomplished via a sliding elapsed/remaining time bar. In situations where an interview is likely to go beyond the time originally promised to the respondent, they should be informed and a re-estimate made.

F. Establishing Initial Contact with the Respondent

When contacting a potential respondent, the questionnaire introduction should not mislead about its purpose. It is realized that, in some circumstances, it is necessary for methodological purposes, generally to avoid bias, to disguise certain specifics about the study. However, this should be done sparingly and should not be implemented to deceive the respondent deliberately. (See Appendix 2.)

Upon initial, and any subsequent, contact the respondent must be informed of any use of audio recording or monitoring of the questionnaire. All national, state, and local laws must also be complied with respect to recording and monitoring. The respondent should be informed that his/her information will be kept confidential.

In the questionnaire preamble and introduction, the following should be clearly stated:

1. The name of the research company undertaking the survey
2. That the survey is in no way connected with the selling of products or services
3. The estimated length of the survey
 - i. If asked, the interviewer should be able to provide a free call phone number and the name of a person to contact at the research company to handle any questions or concerns that the respondent may have.
 - ii. For Internet surveys, the opening survey window (page) should contain:
 4. a dynamic link to a Privacy Statement relevant to the survey
 5. a dynamic link to any Official Rules in operation governing any contest or prizes associated with the survey
 6. an email address and a free call phone number and the name of a person to contact at the research vendor to handle any questions or concerns that the respondent may have

G. The Screener

Typically a questionnaire will divide into two parts, a screening section and the main survey. The screener is where it will be determined if a respondent qualifies for the survey and is willing to participate. If so, he/she is recruited for the main survey. The main survey may then be applied to qualified respondents immediately or at a later time.

The screener should ensure the following:

1. That the respondent is honestly informed as far as possible on the nature of the survey.
2. The respondent is informed of the likely length of the screener. Note: if it is likely to take more than 2-3 minutes, consideration should be given to whether the screener has been optimally designed.
3. The respondent is informed of the likely length of the full survey. This can be done at the end of the screener to avoid bias.
4. The respondent is informed of any incentive for participation in the full survey. This can also be done at the end of the screener to avoid bias.
5. Any potential further obligations beyond the full survey should be told to the respondent at the end of the screener at the recruitment phase, unless this is likely to adversely bias subsequent responses.

6. Screener questions should be kept to an absolute minimum and should comprise only questions necessary to screen and recruit respondents to the survey. Questions that do not impact the screening or recruitment should be reserved for the main survey.
7. In virtually all cases, since respondents are not rewarded for participating in a screener, it is essential that they do not feel that their time and cooperation has been wasted or abused.

It is recognized that in order to prevent bias, it may be necessary to disguise certain aspects of the screening and recruitment in order that potential respondents cannot self-select based on the nature of the questions. In such cases, the respondent must not be deliberately misled and must be informed of the broad subject matter, e.g., a screener should not be worded such that a respondent believes he/she is being surveyed and recruited about grocery shopping when the ultimate subject matter is personal hygiene.

Every research project is different and to this extent will have different requirements in terms of screening question content. While actual question phrasing, style, and order is likely to vary depending on the nature of the survey and the survey designer, there are several areas of screening that are typically utilized. These include:

1. Past survey participation in a survey during a specific time period and/or on a specific subject
2. Employed or connected with competitive industries or companies (e.g., market research, advertising, etc.)
3. Gender
4. Age (note in Internet surveys, due to the COPPA requirement, it may be necessary to apply this question as the very first in a screener)
5. Income
6. Geographic location
7. Ethnic origin

Business-to-business surveys might also include:

1. Company size (\$ and employees)
2. SIC code or industry description to enable SIC coding
3. Job title

Note: for online or Internet surveys using emailed invitations to a screening process, or directly to a main questionnaire in the case of pre-qualified online panel/database members, one-time password protection should be integrated into the process in order to prevent unauthorized or repeat access to the questionnaire.

It is generally recognized that participation in a survey is improved if questions of a more personal nature, such as age, income, ethnicity, etc., are minimized and only asked toward the end of the screening process, or reserved for the main questionnaire if that is viable.

In any face-to-face interviews where respondents are being asked to self-complete a survey or visual aids are to be shown, it is prudent to ask respondents whether they have their eyeglasses available if they wear them.

H. The Main Questionnaire

In many cases, the main questionnaire will be administered directly following the screening questionnaire. In such cases, establishing the link between screening and main data at the respondent level should be relatively straightforward. Nevertheless, the need to ensure that a common identifier, such as a respondent or interview number, is used for both parts of the interview is imperative. In situations where there is a hiatus between the screener and the main questionnaire, for example, to quota or stratify the sample, it may be necessary to conduct additional re-screening and, in addition, the necessity of correlating the screener data with the main survey is therefore even greater.

I. Questionnaire Appearance

“Less is more” stated the world renowned architect Ludwig Mies van der Rohe. That is never truer than in the context of questionnaire design. While it is important to get the words right, it is equally important to make the questionnaire legible and with sufficiently interesting design to hold the respondent and the interviewer’s attention.

Look and feel

Keeping questionnaires clean and simple-looking is key to aiding comprehension of both the respondent and the interviewer. However, bland black and white questionnaires can be boring and lead to confusion and loss of concentration and disinterest on the part of the respondent where self completion is involved.

Try to minimize the amount of words used on questionnaire pages, both in terms of questions and instructions. The use of graphic devices such as arrows, lines, boxes, and shading can be more conducive to quality and less confusing than words. Where instructions are necessary, keep them to a minimum. There is always the tendency to place instructions into a survey for every eventuality; but this can lead to significant word-crowding.

With formats that require the respondent to see the questionnaire, visual aids, or be involved in specific tasks, specific attention should be given to layout and graphic design. The underlying premise should be to create a layout that is as pleasing as possible to the eye to aid concentration, tracking, and comprehension. The use of white space can be beneficial and adding an additional page or two in paper and Internet surveys can aid completion.

For online surveys, all designs should work in the main browsers MS Internet Explorer and Netscape Navigator (currently version 4 and higher for both) as well as AOL’s browser and should be scaled to the principal resolutions.

The Use of color

Certainly with online surveys, and potentially with any paper self-completion questionnaire, the use of simple color and design elements can assist in comprehension and appeal. Try not to use more than two colors (three at an absolute maximum) and white can, of course, also be used. Constrain color choice generally to pastel shades and avoid bright or incompatible colors where possible, especially for backgrounds and shading bars, etc. For questionnaires deployed via the Internet or direct via a PC it should be remembered that the type of monitor, screen resolution, and screen settings on each individual respondent's computer will affect what is seen.

The use of color and lines can assist in directing the eye around the screen and separating key elements of the questionnaire. For example, it can be helpful to shade alternate rows of a questionnaire to help the eye separate the elements. Generally, the eye will first settle on the top left of the web page and has to be directed around the page from there.

Graphic images

Graphics images should be incorporated sparingly, and only if they are relevant to the survey and not distracting. The same applies to a client's logo, which should only be applied to work where the respondent is taken from a client's website, recruited by or on behalf of the client, or it is appropriate for the research to reveal the sponsor.

Font selection and type guidelines

Ensure that all fonts used are simple and within the standard. Times New Roman and Arial, although relatively unadventurous fonts, are the most commonly used in printed documents. Verdana and Courier are the most common fonts used on the web. Serif fonts (those with small horizontal lines at the base and top of each letter) such as Times New Roman assist the eye in reading, especially wide pages, more than san-serif fonts (without the horizontal lines) such as Arial.

Proportional fonts (Times New Roman and Arial are both proportional) space the letters based on their width and are generally easier to read. Monospace fonts, such as Courier, use the same amount of space for each letter. While it is somewhat easier to line up words in monospace, it can conversely cause annoying gaps.

Try not to use more than two alphabets' worth (approximately 50 characters) in a single line, otherwise the eye can wander. NEVER extend a web-based questionnaire so far to the right that text is cut-off or the respondent has to scroll horizontally.

Do not make excessive use of UPPER CASE (capital letters) or large amounts of **bold** text, since it becomes more difficult to read. Capitalize and bold sparingly.

Do not make the leading (distance between lines of text) too tight or spaced out. Generally leading should be set at “single” spacing.

Type should be left justified (line up on the left), not on the right. Left and right justified text can stretch out lines of text and should be avoided, especially with short lines where excessive space between words can result.

Use space prudently. Negative (empty) space can help, but it is more problematic in a web environment since different screen sizes, resolutions, and browsers handle space in different ways, and it can also impact wrap-arounds and pagination.

J. Constructing Individual Questions

There are clearly many types and formats of questions and their selection should be guided by the need to meet client objectives, the ease of the task for, and comprehension by, the respondent and the interviewer. The following basic tenets should be considered.

Basic premises

Questions should be practical to administer, avoid complexity, and be as short as possible.

Tedious and repetitive question formats should be avoided, since they are more likely to induce loss of attention and interest, and induce fatigue or outright rejection on the part of the respondent. Such questions are also likely to reduce the attention paid by the interviewer.

Balance should be created in terms of the types of questions such as simple pre-coded questions, rating scales, complex grids, sorting tasks, and open-ended responses.

Question design should also be mindful of the data results and the subsequent analysis and interpretation. Questions that do not meet the objectives or that are unlikely to be analyzed or used (typically the “nice to know”) should be eliminated to reduce survey length and complexity and to promote goodwill with the respondent.

Selecting the correct question format

Selection of the most appropriate question form (for example, the application of say a four- versus five- or ten-point scale) will depend on need, experience, and preference. However, the researcher is encouraged to consult relevant literature where necessary to establish the merits and demerits of a proposed question format.

Scalar formats

There has been much written about the development and use of pre-defined statements relating to opinions, attitudes, image, personality, etc., typically associated with scalar measures. It is recommended to the user to consult the relevant literature on the subject if in doubt on the appropriate formats to employ. However, in any battery, it is generally suggested that both positive and negative statements be used and that double negatives be avoided.

Open-ended (verbatim) questions

The use of open-ended (verbatim) questions should be carefully considered. Depending on the nature and extent of the overall survey and the question itself, open-ended questions can be very useful in eliciting deeper and more spontaneous responses than structured (pre-coded) questions. However, there are situations where their use can also be fairly unrewarding. Where a questionnaire is interviewer administered, good objectives-probing is essential. It should generally take the form of “what do you mean by that?”, and following a respondent’s comment should be accompanied by a probe such as “is there anything else...?” Typically this probe should be asked twice. For self-administered questionnaires, it is important that the introduction and required detail of response is clearly explained in the question preamble.

Clarification of responses

Attention should be paid to the provision and use of “Don’t Know (D/K)” and “No Answer (N/A)” categories. While they are appropriate for certain questions, their presence can also create an opportunity for respondents to avoid answering a question.

In situations involving technical terms, abbreviations/acronyms, potential new ideas and concepts, or any other issue where the survey respondent may not understand, fully comprehend, or misinterpret, a simple explanation should be provided. If that can be done in a few words, such explanations can be embedded within the questionnaire, perhaps introduced in terms of “by this we mean ...” Longer and more detailed explanations may require an accompanying glossary for the respondent and/or the interview as appropriate.

K. Ensuring Good Flow and Control

The questionnaire flow should, wherever possible, be logical and progressive from the respondent’s perspective. This does not have to be in the order of the survey objectives. Particular question sequences may, however, be necessary in order to avoid bias. Where necessary, linking phrases or “soft” introductions should be employed in order to keep the respondent engaged. In this respect the researcher is encouraged to flow chart the questionnaire to establish that all objectives are being met, that the flow is logical, and that questions of a related nature are grouped together. In sum, one should optimize the overall design to ensure that efficiency is maximized while length is minimized.

For questions that require external prompts, products, or information to be associated with them, it is essential that the reference points are clearly identified to the interviewer and/or the respondent as applicable and that such links are exhaustively checked prior to survey deployment. In particular, the following points should be considered:

Where visual aids such as concepts, drawings/diagrams, and pre-coded response lists are to be shown to the respondent via interviewer-administered questionnaires, they are to be clearly coded and fully checked in terms of the questions they apply to.

In product or concept tests, the items must be clearly coded using codes that will not bias response (e.g., avoid coding schemes such as A1, B2, etc.) and will ensure that not only are the correct items shown but that what is actually shown is correctly recorded on the questionnaire and preferably also on a separate control form.

L. Quality Control

It is often difficult to recover missing or incomplete information fully once a data collection has been completed. It is therefore imperative for the integrity of a survey that all potential problems are thought through, that relevant instructions for the respondent and the interviewer are in place, and that there is thorough testing of the questionnaire. It is likely to be more prudent to spend additional time on the testing phase than to rush a questionnaire into the field. Extra days taken here can often avert later time-consuming problems.

M. Preventing Question and Order Bias

Biases can occur due to the use of fixed orders in lists, statements, and the presentation of products, concepts, and visual aids. It is important, therefore, that controls be placed in the questionnaire to prevent such biases. Typically such controls will involve production of different versions of the questionnaire with different orders or rotations of potentially biasing items and questions. It is critical that all such product/concept testing orders, questionnaire versions, and rotation of questions be recorded on the questionnaire where there is interviewer administration. For self-completion surveys (including online), ordering, versioning, and rotations should be controlled and recorded by the most appropriate means. It is critical that there is thorough checking for completeness and appropriate documentation to ensure that subsequent data coding and processing can account for any versioning and “de-rotate” item and attribute lists, etc.

N. Instructions

Whether questionnaire instructions are designed for an interviewer or a respondent, they need to be simple and unambiguous. There is often a tendency to be too wordy and to cater to every eventuality, which can result in instructions not being fully read or in being misunderstood. It is also important that, while

there may be a requirement for instructions to stand out, use of bolding and all capitals can in fact have less impact and not aid reading. It is generally far better to distinguish instructions by position, the use of a box, or color.

Testing the questionnaire

Questionnaires should be thoroughly tested as follows:

Alpha: In-house with a researcher or person with relevant experience playing the role of the respondent. This test should be regarded as an initial de-bugging, flow, and timing check.

Beta: Via a pretest or pilot test typically among a limited number of real respondents (people with the same profile as those expected to complete the live survey). This should endeavor to check comprehension, flow, completeness, and timing. It may be appropriate also to qualitatively interview the respondent to clarify issues, especially to ensure that no question areas or potential responses have been omitted.

All skip or routing patterns should be thoroughly tested. This is often best accomplished by flow-charting the question sequences against all potential respondent categories and responses.

Data for quality control

As part of the interview quality control process, it may be appropriate to analyze response patterns by interviewer to ensure that instructions and controls have been followed. In such cases, provision for additional coding may be required.

To aid in the Q-and-A process, all questionnaires should contain the following standard identifiers:

- Date and time interview commenced (and recommenced if more than one session)
 - Length of time to complete
 - Interviewer who administered questionnaire
 - Geographic location of respondent (state, region at minimum, full address preferable)
 - Time zone (for Internet and telephone surveys)
 - A point of respondent recontact such as telephone number, email address, etc., to permit verification and authentication
2. Questionnaire/respondent/survey number (as appropriate).
Note that this is a key identifier for analysis and should be entered on the screener as well as any subsequent questionnaire parts and any other item, such as self-completion grids, that are not firmly attached to the questionnaire.
 3. Relevant coding for concepts/products tested, versions/ordering, and data processing.

O. The Questionnaire Approval Process

While it is the researcher's responsibility to design, test, and deploy the highest quality of questionnaire, it is essential that the client "sign off" on the final iteration prior to deployment in the field. This approval process should be made with respect to the following considerations:

1. The questions meet the needs and objectives of the survey. These might have changed to some extent from the original RFP and proposal.
2. The likely responses from the questions, individually and via integrated analysis, are actionable.
3. There are no omissions of questions or potential responses (such as pre-coded responses or mechanisms to capture responses).
4. There are no errors such as illogical questions or sequences, grammatical/spelling, technical terms, etc.
5. There are no bad questions that might potentially generate un-analyzable, contradictory, or contentious responses.

Note that no additional questions should be added to the survey that are not seen and approved by the client, except in multi-client surveys or with prior agreement.

P. Documenting the Questionnaire

It is important that the final version(s) of the question and all related key control documents, instructions, visual aids, and a report of terminations and break-offs by question should be provided to the client. At minimum the (core) screener and questionnaire should also be appended to the report and/or presentation deck.

With tracking surveys, it is imperative that a complete log of all changes to the questionnaire over time be maintained to ensure continuity and integrity.

Q. Closing the Questionnaire

It is good practice and indeed a source of beneficial learning for future surveys to ask each respondent one final question about his/her level of enjoyment of the survey.

It is critical that each respondent is thanked at the end of the survey and that any fee, reward, or incentive that has been promised is then provided. In situations where this is not possible, such as with a prize drawing, respondents should be provided with all necessary information on when they will receive their incentive or how they can find out if they were a winner in the case of a drawing.

With online, Internet surveys, the technology is so inexpensive and easy to deploy that a "thank you" email should be sent to each respondent after a survey has been completed.

R. International Surveys

International questionnaires have to balance and compromise the needs and objectives of the survey and the approach that might typically be used in the

United States with the practice of the local country(ies). It should be acknowledged that while many market research questionnaire approaches are fairly common country-to-country, there are local differences. The general rule should be to accommodate such local differences unless it is felt that they will jeopardize the fundamental integrity of the research. As far as possible, it is always better to have local research agencies, especially their interviewers, working with a familiar format rather than an unfamiliar approach that is more likely to create misunderstanding and errors. This is, of course, easier to implement when deploying a survey in a single country, as opposed to multiple countries, and especially in circumstances where standard questions are necessary for comparative data.

As with any study, pre-testing of the questionnaire is always advised, and this is especially true for international surveys. Where opportunity affords, it is also preferable to stagger the start of main data collection and let one or two countries (e.g., one English-speaking and a non-English-speaking) act as ‘leads’ to facilitate problem detection over-and-above that undertaken in the pre-test.

Key questionnaire design issues to consider with international surveys include:

1. Wherever possible, allow the local agency to utilize its more familiar layout. Note that most of the world utilizes metric-sized paper, which means it is sometimes difficult to keep to the exact pagination of a US questionnaire.
2. Also allow the local agency latitude in terms of the nature and extent of inclusion of instructions within the questionnaire.
3. Translations are usually the most problematic issue.
4. Initially a US English questionnaire needs to be translated (forward translation) into the local language. As a general rule, the local agencies are able to provide better initial translations (US English to local language) than either a professional translator or a national of the country/speaker of the language in question who might be a resident in the United States. There are two principal reasons for this: local researchers, providing they are adequate English speakers, know not only the local language but also the research question format (professional translators rarely do), and they are also current with idioms and usage. Do not, for example, assume that a UK national living in the United States is totally familiar with current English as used in UK survey research.
5. It should be borne in mind that an English language questionnaire, when translated into many foreign languages, can increase in length by up to 15% due to the syntax and construction of some languages.
6. When translations are undertaken, the most problematic areas are likely to be scales and attributes since some languages do not have exact equivalents to the English word or concept. Indeed, a language such as German is more likely to have several words covering one English word, each with a different nuance.

7. Once the initial translation is complete, there are two ways in which the translations can be validated. A formal 'back translation' comprises taking the local language questionnaire and translating it directly back into English. This is typically undertaken by an independent translator (not the forward translator), who does not initially refer to the original English version. While this is the more complete approach, it is also the most expensive and time-consuming. The alternative is 'back-checking', whereby an independent translator compares the local translation with the original English version and looks for errors, omissions, and points of difference.

Although a post data collection issue, the handling of open-ended question responses in foreign languages can also be problematic. Full translation of open-ended questions is not encouraged since it is not only expensive but can result in nuance being lost in the translation, as well as placing the frame building and interpretation on a central English-speaking coding resource. It is far better to initially develop the code-frame from the US English questionnaires (or another key country) and then distribute it for use by each local research agency that codes its questionnaires before shipping. Provision should also be made for the addition of codes to accommodate local issues.

7. Data Collection: The Fieldwork

A. Introduction

The physical collection of survey data is commonly referred to as “fieldwork,” a designation reflecting the origins of survey research when data were primarily collected by door-to-door personal interviewers, or “fieldworkers.” Throughout this chapter the terms “fieldworker” and “interviewer” are interchangeable.

But, regardless of the method of collection, fieldwork is the one area of research that incorporates a good deal of art in addition to science. Measuring and quantifying the quality of fieldwork is, therefore, a difficult challenge.

Furthermore, fieldwork is the study element that is furthest removed from the supervision and control of the study sponsor and the primary research supplier and furthest removed from examination by the report user. This is due, in part, to the fact that fieldwork often involves a series of contractors and sub-contractors. This multi-tier system makes it more difficult to determine where research is well – or poorly – executed.

Given such challenges, fieldwork is likely the most difficult part of the research to evaluate. Consequently, nowhere in the process of research is transparency more important. Clear, complete, and auditable plans must be provided to the end user. Field checks should be conducted by the research firm and the client.

B. Interviewer Selection, Training, Briefing, and Motivation

In selecting interviewers, care must be taken to address potential bias issues. Language, social strata, age, gender, and other demographic characteristics can play a large role in influencing respondent cooperation and responses. The interviewer selection process, therefore, must clearly and objectively spell out the job requirements and specifications. Preferably, some pilot interviews should be administered to assess the type and magnitude of bias that can be introduced by the interviewer.

The type and amount of training needed to adequately prepare fieldworkers will vary by type of study and the method of collection. Since different types of studies (e.g., qualitative, telephone, personal in-home) require special training and experience, one is advised to ask whether the fieldworker is qualified for or accustomed to the type of interview being used in the study and, if this is not the case, to request that the appropriate training, or interviewer selection, be provided.

Briefing is necessary to ensure that each fieldworker knows the specific details and problems that might arise in the conduct of the elements of the project. The content of the briefing will depend upon the sample design, the content and complexity of the questions, and the way the field instruments are designed and administered. It is advised that practice interviews be conducted with each interviewer as part of the briefing. These are particularly necessary where the

survey involves technical language, rotations, intricate skip patterns, or other elements of complexity.

Incentive plans may be deemed critical in achieving the required response rate and in securing properly completed, usable survey responses, but incentives can be a source of bias. Given this potential to be a double-edged sword, some investigation is required prior to fielding any study. Unless the survey is very similar to others conducted previously, pre-testing is recommended, particularly for large-scale or complex surveys.

C. Quality Control Procedures

Quality control is important as it provides assurance that the data are gathered carefully and by systematic, unbiased, planned procedures. It is important to have in place a system to monitor day-by-day, and interviewer-by-interviewer, the quality of the fieldwork. This is especially critical for large-scale studies over extended time periods. Records should be kept to provide objective evidence that data collection procedures are followed, and they should be reviewed frequently with proper feedback, positive and negative, as warranted. .

In multicountry research projects, quality control procedures are more difficult to put in place and to manage but are even more critical. For a more detailed discussion of multicountry research consult the chapter on Challenges of Special Populations (Chapter 11).

D. Fieldwork Verification

The purpose of fieldwork verification is to determine whether the interview was actually conducted with the designated respondent and whether the proper mode and sequence of questioning was used. Sometimes checks are also made of factual information obtained in the interview, particularly respondent and household classification data.

Ideally, a third-party firm independent of both the sponsor and the research supplier for the study would implement verification; but the research supplier's own verification process may be considered adequate if it is clearly established prior to the start of fieldwork and is properly supervised and reported on.

The percentage of fieldwork verified varies from study to study. Many studies have a minimum verification requirement of at least 20% for an interviewer's work. Then if errors are found for any interviewer, 100% of that interviewer's work is verified. Simultaneous monitoring and checking of telephone interviewing work, if properly done, may greatly reduce the need for verification.

E. Information for Response Rate Calculation Dependent on Field

Calculation of response rate is addressed elsewhere in these guidelines. Nevertheless, it is important to note here that the data necessary for the response rate calculation is entirely dependent on the interviewer and fieldwork management. The supplier must therefore ensure that these data requirements are

clearly written and that verification of the procedure for collecting these data is properly executed.

F. Ensuring that Self-administered Surveys Are Sufficiently Complete and Accurate

There is no good substitute for careful writing of instructions and pre-testing of the questionnaire. Additionally, there has to be a procedure in place to continuously monitor that the expected completion rates and accuracy of responses are achieved.

Interviewers often need training, instruction, and incentives to encourage them to check for skipped, or incorrectly completed, items in self-administered questionnaires. Where the respondent is asked to mail a portion of a survey, highly-visible and clearly-written instructions can encourage the respondent to check over the questionnaire for completeness.

G. Logic Checks in Computer-administered Surveys

Computer assistance in the data collection process can take many forms. For example, in the last few years, online surveys have received much attention.

And there are also off-line computer assisted interviewing methods such as telephone interviews with a “CATI” (computer assisted telephone interviews) program, and personal interviews using a notebook computer instead of paper and pencil instruments.

There is a good deal of literature available on this subject, but not too many hard rules. The practitioner is urged to ask him or herself the questions posed above and provide himself/herself and the end user with reasonable answers.

G. Pretesting Questionnaires to Increase Completion Rates

By self-administration, we refer to either computerized or paper and pencil surveys. Survey completion rates for self-administered surveys can be increased by pre-testing the questionnaire to ensure the clarity of the questions and the ability of the respondent to comply with what is asked of him/her. Critical and costly surveys deserve elaborate and exacting pre-testing. In all cases the self-administration process requires careful planning and clear disclosure of the plan.

8. Data Processing

A. Introduction

The data processing function serves to transform raw data from source materials (e.g., survey, diary, sales transaction records, transcripts, etc.) into market and/or media information. The basic phases of data processing usually include: data capture/entry; editing/cleaning; coding; and basic data tabulation. In addition, as multiple sources of important market and media data are emerging and as the challenges of collecting extensive measures in a single source are increasing, a growing number of research-related products involve the integration of multiple sources of data into a unified dataset. While the means and ends of such data integration are varied, the integration techniques invariably involve substantial processing procedures and as such are discussed herein.

B. Data Entry and Verification

Processes for transferring data from the survey instrument to a format compatible with data processing should include verification and checking procedures. Whether data transfer involves manual key entry or optical scanning, some portion of the source material should be reprocessed and comparisons made between the two resulting datasets to verify the integrity of the data transfer process. In cases of optical scanning, it is often important to verify the accuracy of the scanning by independent means, usually key entry. Moreover, in cases involving complex question logic, crowded layouts or other challenging data capture conditions (both manual and automated), higher levels of verification are advisable. In cases where the survey completion and data entry are unified (e.g., Computer Assisted Self Interviewing – CASI), etc., the underlying scripts should be thoroughly tested prior to the launch of the survey to assure that the data are captured fully and accurately.

C. Editing and Cleaning

Raw research data are generally collected from one of three sources: 1) self-completed paper questionnaires, 2) self- or interviewer-aided computer assisted surveys, or 3) automated and primarily passive methods. The purpose of the editing/cleaning phase of data processing is to ensure that data, however captured, are rendered as accurately, consistently, and completely as possible. Moreover, editing/cleaning should preserve as much as possible of the original meaning and integrity of the data as provided by the respondent.

The first way to realize consistent and complete respondent data is to provide clear instructions to respondents. This is particularly important for research employing self-completed questionnaires. Such instructions serve to minimize the amount of editing and cleaning required afterward.

Data collected through paper questionnaires lack any means to ensure correct response entries, so they always have to be edited and cleaned afterward. These procedures will vary with the survey design. Editing and cleaning rules constitute the functional equivalent of the questionnaire's respondent instructions. In cases of computer-assisted interviewing, much of the editing/cleaning function is incorporated into the actual survey instrument (e.g., respondents are allowed only to select valid response options). For data collected through passive measurement means, e.g., Portable People Meter (television and radio) or Radio Watch (radio), editing is essential to ensure that the data stream is intact and respondent cooperation is being maintained.

Editing and cleaning rules must ensure that the data are 1) structurally coherent, 2) factually coherent, and 3) when necessary, complete. Structural coherence is achieved when the data violate no survey rule, e.g., only a single response is offered for a single-response question; factual coherence, when responses are not factually consistent (e.g., Shopped for clothes in the last 30 days – No, Bought clothes in the last 30 days – Yes). Depending on the study design and purpose, completeness may or may not be required. In some cases a separate category, like “missing value,” is used to handle incomplete responses. When the study design requires that all questions/variables be completed, some method must be used to “complete” or ascribe these data. Generally, methods used to ascribe data employ information from other completed questions to predict a likely response to the “incomplete” question. Various statistical or heuristic techniques may be employed to determine the predictive value of variables used to ascribe the “missing-value” data. Irrespective of the technique employed, the rules and procedures for the assignment of “missing values” should be fully described in the technical documentation provided to the users.

A report should be provided that summarizes each edit/cleaning and “missing value” ascription rule, and how many times each data point was altered by an edit/cleaning or ascription rule. Such a report shows what parts of the survey caused problems for respondents and offers the analyst insight into what final data may be problematic. In the case of “missing values” attribution, a summary of the predictive value of each ascription variable helps show how much the completion process may have distorted the original data.

D. Coding

Coding is the process whereby raw responses (usually after editing) are identified by response or analysis categories in preparation for subsequent tabulation and analysis. Whether performed manually or through the use of specialized software, the purpose of coding is to provide a scheme whereby open-ended responses are objectively translated into a predefined set of categories. Most questionnaires are pre-coded, thus eliminating variations due to individual coders.

The goal of any coding scheme is to classify survey responses having individual differences of expression into coherent and informative categories. The coding

scheme must allow each response to be classified reasonably and accurately and define categories relevant to the particular research interest.

A survey pretest can be used to develop and validate a coding scheme. Usually this involves developing a preliminary coding scheme using a more manageable number of questionnaires. By analyzing pretest data, both the coding scheme and questionnaire alike can be revised to more accurately measure and articulate the character of the phenomena of interest. To minimize bias it is often helpful to have several schemes developed independently and then compared for consistency.

In cases where no pretest is conducted and where information from a large number of respondents is involved, separate sub-samples may be used to develop a coding scheme – one to develop a preliminary coding scheme and another to validate its reasonableness and completeness.

Research involving respondents from different cultures, nations, or language groups presents unique coding challenges in that potentially different cognitive frames are involved. With respect to language it is important that coding categories be developed by researchers who are fluent in the language of the respondent and can explain differences of nuance and expression to others involved in developing codes. Even subtle differences in how respondents from differing cultural or language groups can lead to fundamentally different survey responses. Thus coding schemes designed to categorize respondents from different cultural and/or language groups need to be fully verified. To this end it is imperative to pre-test and refine coding schemes using sub-samples of respondents from all significant groups.

E. Data Integration

The increasing need to understand complex sets of consumer and/or media behaviors while avoiding overburdening respondents has increased the need to integrate data from multiple sources. Techniques of integration include: merging data for particular individuals from multiple sources; fusing data from different respondents from different sources; and calibrating one set of measures to levels derived from others. Irrespective of the technique employed, suppliers of integrated datasets must thoroughly describe the original data sources and the integration techniques employed as well as provide metrics to access the quality of the integration. For more on this topic, please consult the ARF Data Integration Guidelines.

F. Basic Data Tabulation

Basic data tabulations generate summary counts for each response or analysis category. They are useful tools for verifying data integrity and validity and for developing preliminary findings. Computer-assisted interviewing and questionnaires make it possible to perform real-time tabulations during fieldwork and afford the opportunity to track responses on a continuing basis. Trial runs of

tabulation programs should include checks to ensure that the data are consistent and complete and the tabulation specifications accurate. Where possible, tabulations of a sub-sample of the data are useful in verifying the accuracy of the tabulation program.

9. Treatment of Data

A. Introduction

The term “treatment of data” denotes any mathematical or statistical procedure performed on raw respondent data beyond simple tabulation. Categories of data treatment include:

1. Design weighting, sample balancing, and projection weighting
2. Calibration weighting
3. No-answer distribution
4. Ascription
5. Scaling and other adjustments

The following sections treat these categories in turn.

B. Design Weighting, Sample Balancing, and Projection Weighting

When population estimates are desired, the respondent sample conventionally is weighted by means of a multiphase procedure.

Design weighting attempts to account for the differential probability of selection among the survey’s respondents. For example, in an RDD sample, households with more than one phone number are more likely to be contacted than households with a single active line. To avoid biasing the sample by over-representing such multi-line homes, a design weight is imposed on each respondent to equalize his/her probability of selection.

Sample balancing involves weighting/factoring to account for differential non-response. For instance, in a study with an 80% response rate, a weight/factor of 1.25 ($100/80$) would be imposed on each respondent, while for a study with a 60 % response rate the weight/factor would be 1.67 ($100/60$). Such weight/factoring is employed within individual sample cells (e.g., demographic, geographic) to account for their differential non-response bias.

Projection weighting is employed to align or balance sample projections with known population estimates. Generally this form of weighting is employed when it is important to produce absolute population estimates of the behavior(s) of interest. Projection weighting is frequently done using a set of demographic and/or geographic population targets (e.g., sex, age, education, geography). The technique typically proceeds as follows:

1. A set of population targets is developed (e.g., Sex, Age, etc.)

2. Any design and/or non-response weight is attributed to each respondent in the sample or each respondent is given an initial weight (usually of 1)
3. Successively through each of the population targets, starting with the least important, each respondent with a particular target attribute (e.g., age 18-34, age 35-65, age 65+) has his/her initial weight multiplied by a factor such that the sum of these weights is equal to the target. To avoid attributing excessively large or small weights to individual respondents, it is advisable to impose upper and lower limits on these weighting factors.
4. Since balancing individual respondent weights to successive population targets disrupts the weighting for previous targets, the procedure is repeated until little or no adjustment of previous targets is needed after successive targets have been aligned.

Computers simplify data weighting and permit simultaneous design, non-response, and projection weighting, although these steps still may be performed separately. That said, the normal sequence of raw data treatments is design weighting first, sample balancing second, and projection weighting third.

While projection weighting certainly is useful, it is no panacea. It decreases the effective sample size, which inevitably increases the sample variance. This is most often evident in crosstabulations where the weights for individual table cells may be very different. As such, the tolerances of the cell estimates of projected data are usually larger than for comparable unweighted tables.

C. Calibration Weighting

In calibration weighting generally a higher quality measure from one survey is used systematically to calibrate or adjust a lower quality one from another. For example, one higher-quality survey, e.g., one with a superior sampling design, questionnaire design, etc., and potentially the ability to measure a few phenomena with a high degree of accuracy, while another survey may measure the same phenomena, plus many others as well, with less accuracy. The respondents in the second survey can be weighted to those of the first on the phenomena measured in common. The assumption of such a scheme is that by aligning the two commonly measured values that the related values in the second (lower quality) survey are adjusted to more accurate levels.

In general, projection weighting and in particular calibration weighting should be used with caution. The best way to measure any phenomenon is to use a high quality sampling technique and a carefully designed data-gathering procedure, to achieve the highest possible response rate. It is imperative that all weighting schemes be fully disclosed and their potential biases and uncertainties clearly acknowledged.

D. No-Answer Distribution

A classic problem in survey research is how to treat missing values, questions for which respondents give no response and thus provide no data. The treatments available range from rejecting all the data from respondents who fail to answer all questions to the imputation of the missing values by some predictive means.

In many cases, missing values are left as a part of the respondent data set and are included as separate categories in analyses. In fact, there is a substantial literature associated with treatment of missing values in statistical procedures. In some cases, however, including missing values cannot be justified, and thus some means of missing value imputing them must be developed.

A number of different procedures have been employed to impute values in place of missing ones. These range from regression and simulation to neural networks. An exhaustive discussion of each of the important techniques is beyond the focus of this work, but what follows is a general predictive strategy which accounts for the basic elements of missing value imputation procedures.

1. For any question having missing values that must be imputed, identify the donor and the recipient respondents (e.g., those who did or did not provide complete responses, respectively).
2. Within the donor group, identify the independent variable(s) which is(are) the best predictor(s) of responses to the question for which missing values are to be imputed (dependent variable).
3. From among the donor group, determine the responses to the dependent variable with respect to the independent variable(s). As appropriate, develop a regression for a regression equation, a set of weights for a neural network, a set of probabilities for a simulation, etc.
4. For each respondent in the recipient group, impute a response to the dependent variable (missing value) using the predictive scheme from step 3 and the independent variables from step 2.

While missing value imputation does not increase the information content in the dataset, in practice the convenience of “complete” data may offset the error associated with predicted rather than actual responses.

E. Ascription

In multiphase survey research some respondents may complete some phases, but not others, so the information associated with the missing phases will assume missing values. The treatments available include discarding all information from “incomplete” respondents, leaving the incomplete values as missing, and imputing these values. The first alternative means discarding “incomplete” respondents from the completed as well as the incomplete phases of the survey. Leaving as missing those values for the incomplete phase(s) has the same advantages and disadvantages as noted previously in the missing values section.

Imputation of one or more phases has the same advantages and disadvantages as imputation of missing values.

When imputing all missing values for an individual survey phase, two alternatives are possible. The first is to impute all the values missing from a phase individually, possibly at the expense of important relationships between them. The second is to ascribe complete sets of values from phase-complete respondents to phase-incomplete ones, possibly at the expense of individual values within them. Generally, these broad data ascription strategies follow much the same course as discrete missing values imputation, but complete sets of data are imputed to “incomplete” respondents rather than just discrete values.

The researcher can assess the added value of complete-phase imputation over individual-item imputation by comparing the inter-correlation of items among those respondents completing all items in the phase with the inter-correlations where complete-phase imputation was used or where individual-item imputation was used.

F. Scaling and Other Adjustments

Often, in reporting a survey, responses to several questions are combined to produce a single measure of each respondent. When this is the case, it is important to know which items or questions were used and how their values were manipulated.

One such manipulation is to build a composite score from ordinal data, such as with sliding scale responses (e.g., “strongly agree,” “agree somewhat,” ..., “strongly disagree”). A composite score may be valuable – it may summarize concisely the perceptions of an entire respondent base. However, it makes two potentially problematic assumptions. One is that the discrete ordinal categories are points on an interval continuum to which specific values can be assigned (e.g., “strongly agree” = 5, “agree somewhat” = 4, etc.). Actually, such data is merely ordinal in character, and, therefore, the equality of the intervals between response categories is not assured. A second, and potentially more problematic, assumption is that both the category values and the “distances” between them are perceived as the same or relatively similar by all respondents. In fact, respondents’ perceptions of the measures of such ordinal scales are highly subjective, differing in meaning from one respondent to another. This issue is potentially more pronounced in research involving respondents from differing language and/or cultural groups.

Thus, in the attempt to develop broad and potentially useful understandings of the relevant phenomenon, the strength of the actual data has been assumed to be greater than in fact it is from a formal statistical perspective. Consequently, knowing the nature of the general phenomenon being studied, the populations involved, and the particular questions employed in examining the phenomenon are all critical to the development of appropriate and reasonable conclusions.

G. Data Overlay

The growing need for information is clashing with the social environment in which research is conducted. Cooperation and completion rates are generally declining at a rate not easily offset by additional respondent incentives. Consequently, both marketing and media research are more than ever developing research-oriented datasets utilizing a variety of third-party sources in combination with traditional data collection techniques.

Data available from third-parties include demographics, product purchase, and financial data. Some uses of third-party data sources include:

1. Increase cooperation rates and reduce recruitment costs through more efficient respondent selection and targeted incentive programs.
2. Reduce the respondent burden by shortening the survey and using instead behavioral information (such as transactions) that may have higher accuracy than comparable self-reported measures.
3. Supplement and/or update information from previously completed research without the extra cost or time involved in recontacting respondents.

While the use of data from third-parties offers great potential, researchers and their clients must recognize certain limiting factors such as:

1. Some information from third-party sources may have legal limitations on its use (e.g., financial and health data).
2. The timeframes for the third-party data and that collected directly from the respondent through research may not coincide.
3. The third-party data may not be sufficiently up-to-date.
4. Some third-party measures may result from modeling or other imputation processes.
5. Many third-party datasets include (only) household-level data from which it may be difficult to extract information relevant to the particular research respondent.

It is imperative that the strengths and limitations of third-party data be well understood by the researcher and clearly communicated to the research consumer.

Guidelines for Market Research

10. Presentation of Findings

A. Clear, Objective, and Accurate Presentation of Findings

Research conclusions must be represented clearly, objectively, and accurately. It is important to retain the integrity of the research findings, i.e., separate from the interpretation and recommendations. Those measures against which the study are to be judged should drive the conclusions, followed by the diagnostic measures.

Research data may lead to more than one conclusion. Each conclusion should be developed using the data as factual grounds for the viewpoint espoused. The final recommendations will take the interpretation of the data to an actionable business plan. This should be aligned with study objectives. (For example, if two potential cost-reduction formulae are tested against current and each meets an action standard of parity with no alienation, a discussion of total savings and timing of savings plus longer-term sourcing of ingredients should influence the one recommended alternative.) Furthermore, a careful examination of the diagnostics and various subgroups should look for any sign that longer-term issues should be included in the interpretation.

B. Differentiation of Data Findings from Data Interpretation

The findings should be presented in tabular or graphic format, indicating the question number and actual question verbatim. The sample definition, sample size, and the statistical level of confidence employed should be indicated.

The interpretation of the data should be presented in narrative form and should be aligned with the facts, rather than bent to accord with a preferred opinion or a “politically correct” point of view. All data need not be used as support, but care must be taken not to ignore meaningful information in order to slant an opinion.

The design of the report and/or client presentation should follow the format approved by the subscriber/decision-maker of the research. Oftentimes a presentation is all that is called for. This format makes it easier to obscure the facts and to introduce bias in the interpretation. It is the researcher’s responsibility to ensure that all research findings are aired and examined to validate the proposed course of action.

C. Explanation of Data Treatment

In many research projects, the findings and conclusions are based upon not only the straightforward percentages found in the study, but also a variety of statistics, like indices, that compare data from different groups. Comparisons may be made to separate datasets altogether, such as Census statistics or normative databases, if the project is done within the context of a standardized procedure or proprietary model. Various scores may be combined to form a composite score, if it adds value to the data.

In all such cases, it is incumbent upon the vendor to explain the statistical procedures employed. For example, if composite scores employ data from multiple questions, the questions themselves should be identified, the base sizes for each question should be specified, and the methods employed to combine the questions should be disclosed fully.

If scores are being derived from a modeling procedure, which the vendor regards as proprietary, that fact must be clearly stated. To the extent possible, the vendor must explain whatever limitations might be appropriate to the interpretation of such statistics.

If normative databases are used as the basis for comparison, the size and composition of those databases should be clearly stated.

Where multivariate statistical techniques are used (i.e., multiple regression, discriminant function analysis, factor analysis, cluster analysis, correspondence analysis or mapping, multidimensional scaling, conjoint analysis, discrete-choice modeling, etc.), their use must be clearly stated. Limitations in their use or interpretation must also be included. If multiple techniques were tested prior to the selection and use of a given technique, this, too, should be disclosed.

Where differences are stated in terms of statistical confidence limits, the vendor should make available to the client any underlying assumptions and techniques that are necessary for proper interpretation. For example, if the stated confidence limits assume that a probability sample has been employed, but a non-probability sample has been used, the client should clearly understand the limitations of the applied procedures.

D. Distinguishing between Association and Causation

Unless a controlled experimental variable has been changed deliberately to elicit a resulting change in response (as in a copy weight or price test), it is important not to infer causal relationships from the data.

E. Disclosures

Presentations and written reports often become the only reference source used to identify the procedures, questions, and methods used to generate a particular dataset or analysis. As such, they often become historical documents, used by subsequent readers not involved with the project at the time it was conducted.

It is therefore vital that such presentations and reports include detailed information about bases sizes, study sponsors, sampling procedures, the companies, and people involved in executing the project, the precise dates of fieldwork, and the exact questionnaire(s) used. Interview lengths and incentives, if any, should also be disclosed.

In the early days of Market Research, it was possible to generate extremely high response rates from random surveys. Response rates, therefore, often became indicators of data quality. Today, response rates may or may not be an appropriate indicator of data quality. However, it is still important to calculate and report response rates, in accordance with industry standards.

Since response rates are subject to a variety of complex definitional issues, it is essential that the vendor provide a complete and accurate description of the method and the component measures used to calculate the response rate. For example, response rates calculated from within a panel-based sample may differ substantially depending upon whether or not the original panel recruitment rates are accounted for in the response rate calculation.

F. Charting and Graphical Representation

Graphics may provide a highly effective means of communicating the findings of a research study, or they may obscure even simple relationships by overwhelming the audience with poorly designed, visually distracting displays. Simplicity of design and consistency of format should be rigorously applied with emphasis given to clarity of communication over “cleverness or originality.”

It is important that all of the documents connected to a project include the information necessary to proper interpretation of the study findings. Where a PowerPoint® presentation becomes the primary or sole deliverable of a project, it may be necessary to include an extensive methodological section, or Appendix, so that pertinent methodological and analytic components are properly and fully disclosed.

11. Challenges of Specific Populations

A. Introduction

Every type of population surveyed has its own unique challenges. These challenges vary from study to study depending on the objectives of the research and the type of methods used for data collection. It is difficult to determine specific rules or principles for measuring specific populations because each study is different and general categories of populations often overlap (e.g., a study can simultaneously be multicountry, multiculture, and among customers). To date, academic conclusions on research methods have focused more on determining principles for different modes of research rather than for different target populations. Thus, most of the common practices and guidelines suggested in this section are garnered from practical experience rather than from academic findings.

B. Consumers

Consumer research generally refers to studies among potential buyers or users of a particular product or service, whether or not they are currently buyers or users of that product or service. For example, if doing research on the brand awareness and advertising awareness for a particular brand or type of soup, the target population of consumers may include both those who have eaten the soup and/or those that have not eaten it.

Defining the target population

The first challenge of consumer research is defining the target population as something meaningful to the study's objectives. Defining a target population can be particularly difficult when researching new or relatively unknown product and service categories. Careful consideration is required to determine how the target population for consumer research should be defined. A discussion of the challenges regarding defining and selecting appropriate samples in consumer research is contained in the chapter on Sampling in these guidelines.

Issues with targeting a population

Another challenge with consumer research is that the incidence of the population that is targeted, and sub-sets of that population, may be very low. The use of listed samples may be a practical necessity. In such cases it will be important to scrutinize how the lists were compiled, their limitations, whether any type of target consumers might be excluded from the lists, and to what degree non-targeted consumers might be included in the list.

Gaining cooperation

The sponsor of consumer research is typically unknown or "blind" to respondents, though it can be revealed at the end of the survey. Keeping the sponsor unknown

is particularly important for brand and advertising consumer research because revealing it can bias awareness questions and comparisons to other brands. Thus, a key challenge of consumer research is recruiting participants even though they do not know for whom the research is being conducted. Unlike customer research, which can be easily positioned as being in the respondent's interest by describing the survey as an effort to improve future service to them, prospective participants in consumer research should be informed in advance that the survey will be short and interesting, if that is true. In-person or telephone methods are less likely to be refused by respondents because doing so requires rejecting the person making the appeal. A monetary or other incentive is also often helpful. While it can be expensive for large quantitative studies, it may be necessary to use incentives to achieve the desired response rate and sample quality.

An appeal for participation based on improving the category of products or services being offered is typically not very convincing. It is important to appeal across a wide spectrum of the consumer population being targeted, including those who are not strongly attached to the category.

Another challenge with "blind" surveys is that consumers will often think that the survey is for sales purposes rather than research purposes. To overcome this concern it is important to mention immediately that the research will be completely confidential and that it is not a sales call. It is best not to ask respondents their names and, of course, honoring the promise of confidentiality by not re-contacting them without their permission is essential, even if they show an interest in the product or service being measured. Where validation of the interview through a follow-up contact is needed, it may still be desirable not to collect the respondents' names in order to avoid the erroneous perception that the call is part of a sales or fund-raising effort.

C. Customers

Customer research generally refers to studies among the current or past buyers or users of a particular product or service. For example, if doing research assessing or improving the opinions of a particular soup, the target population of customers might include only those who have purchased or eaten the soup.

Defining the target population

Often the definition of a customer is simple. For example, you either have an insurance plan or you don't. For other products or services it can be more complex. If someone has been to a theme park, for the purposes of research, are they still a customer one year later? How about ten years later? To be considered a customer for the purposes of research, respondents should have had an experience with the product or service within a reasonable time frame to be able to recall that experience and judge it.

Where research is conducted among customers of one product or service, it is critical to recognize that any assessments of competitors obtained will not likely

be representative since it excludes what non-customers of the selected brand/service think of the competitors. An assessment obtained under these conditions is generally biased toward the sponsor over the competitor. If the customer study is not “blind,” there might also be a bias in favor of the sponsor because the respondent may want to provide the responses the interviewer expects to hear. This is not to imply that competitor information should not be collected on customer studies, since such information can be meaningful (e.g., to know whether customers think competitors are improving or if they are considering switching), only that such information should not be considered representative of all consumers or competitors’ customers. Interpretation of such measures is best made on a relational basis such as a series of measures gathered in a tracking study.

It is also important to realize that customer studies exclude defectors, those consumers who have tried and rejected a product or service. The opinions of these former customers are likely to be quite different from current customers.

Issues with targeting

Depending on the product or service, it can be easy to obtain a customer list, thereby lowering research costs and mitigating the challenge of defining a customer. For example, an insurance company would be expected to have a good customer list with names, addresses, and phone numbers, while restaurants would have difficulty in compiling such lists. Some companies have created customer loyalty programs where customers sign-up to receive discounts. These lists are often used for research, but are highly unrepresentative because they contain those customers willing to sign-up for such programs, and are likely to over-represent frequent customers.

Companies that do not have good lists of their customers, but are interested in conducting research among their customers, have recently been employing interactive-voice-response (IVR) surveys. Unlike comment cards, which are available at the point-of-purchase to all “interested” customers, IVR surveys are generally conducted among a random sample of customers by programming a cash register to print an invitation for a small subset of customers (e.g., every 100th customer). These customers are given an incentive (often a coupon or discount) that is valid only after a short survey is completed over a touch-tone phone.

When customer lists are used for a sample, researchers should be prepared to answer the question: “Where did you get my name?” It is always best to be honest. If the customer study is “blind,” it may be necessary to answer the question at the end of the survey.

It is wise to exclude individuals who may be sensitive to their names being on a customer list that is provided to a researcher or third-party organization to do the research. For instance, in health care research, although the interviewer may be

unaware of the prescription or illness of the customers being interviewed, the customer may not be confident that his/her privacy has not been violated, and it is best not to risk the perception of betrayal.

Gaining cooperation

If the customer research focuses only on one brand or product, unlike consumer research, it is not usually as important that it be “blind.” The trade-off of informing the customer of who the sponsor is and thereby obtaining a higher response rate is often worth the bias that may occur because the respondent knows for whom the research is being conducted. One important exception to this generalization is brand/advertising awareness research, in which competing brands are compared with the customer brand. Even if not “blind,” it is still important that brand/advertising surveys be positioned as confidential in order to ensure that respondents do not favor the sponsor.

Often in customer research the respondent will ask that specific information be given to the sponsor. Plans should be made in advance for such contingencies. It is often optimal to suggest this option in the survey when the customer mentions they have received particularly poor service or if something illegal may have occurred in their relationship with the sponsor. This will give the sponsor the opportunity to follow-up and resolve the situation to the benefit of the customer and the sponsor. It is critical, though, that if this option is provided that the sponsor is prepared to follow-up quickly.

D. Business-to-Business

Business-to-Business (B2B) research refers to studies regarding products or services used by businesses or other organizations rather than among consumers for their own private needs and desires. For example, if doing research on brand and advertising awareness for the corporate services division of an accounting firm, the target population would be business professionals rather than individual consumers.

Defining the target population

Since B2B research is a broad term, the target population for a given study needs to be defined very specifically to address that study’s objectives. The challenge for B2B is defining both the type of company to be included in the research and the type of person to contact within those companies.

To continue with the accounting example, should the target population be further defined to include only businesses within certain industries (usually defined by Standard Industry Codes or SIC)? Should they be defined by size (revenue and/or number of employees)? There are many ways to determine the type of company to include in B2B research, but industry type, employee size, and revenue are probably the most often used parameters.

As with individuals, it will be important to decide whether to interview current customer companies or any company who could become a customer. It is also necessary to decide whether to call companies only at their headquarters, or include all of their locations as part of the sample base. One also must consider whether to include subsidiary headquarters and other subsidiary locations, as subsidiaries often make decisions on their own.

Once the type of company has been chosen for inclusion in the study, it is just as important to determine who will be the target within the organization being surveyed. Other than c-level titles (CEO, CFO, CMO, CIO, etc.), it can be difficult to screen for a specific title because the titles used and their meanings vary widely among organizations. Rather than screen for titles, it is usually best to screen for “the person who...” (for example, “the person who makes decisions regarding which accounting firm to use for auditing SEC financial statements,”) or to provide a list of activity descriptions from which the prospective respondent can select the appropriate responsibilities.

Depending on the objectives of the study, it may be critical to speak with a decision-maker who approves contracts rather than a user of a product or service. For example, there are usually just a few people at a company that choose which express shipping company or companies to use. These are the contract decision-makers, but they rarely actually ship something or decide which service to use for shipping a particular package. The mailroom personnel, on the other hand, do not negotiate or approve contracts, but they decide which service to use for individual packages and their opinions often play a role in deciding with which companies the decision-makers contract.

In some studies, it may be worthwhile to speak to more than one person in the same company in order to understand the range of perceptions and opinions of people in different roles, even in the same company. Sometimes a company offers different products and services to different parts of a single company, and there is not one decision-maker or user who can speak for everyone. In other studies, the number of customer companies that can be interviewed is so small that it is important to have more than one interview per company in order to make quantitative conclusions (e.g., there are a handful of top accounting firms, so quantitative studies of this target population necessitates multiple respondents per company).

When more than one person at a company is interviewed, careful consideration should be given to how the data will be processed. Should each respondent be treated equally, or should multiple respondents for the same company be “rolled-together” to have the same weight as the respondents from another company? The huge range in employee size and revenue from one company to another further complicates weighting for B2B. Weighting schemes considering the number of employees interviewed per company and the importance of the

company to the sponsor warrant extensive thought and expert judgment prior to data collection.

E. Gaining Cooperation

Since business executives are so busy, and they are typically being called for B2B interviews at work, extra care must be taken to recruit and keep business respondents participating for the entire interview. While getting a report of the findings may be an adequate incentive for some respondents, others may need a monetary incentive. The amount of a monetary incentive for business respondents varies greatly depending on the type and level of the person targeted. For respondents whose companies do not allow them to accept incentives or gifts, an alternative is to offer a donation to a charity in their name.

While it is generally true that recruitment and full participation in a study becomes easier as a survey becomes shorter, it is particularly critical for a survey among business people to be as short as possible. The higher the level of the respondent, the shorter the interview should be. Generally, B2B interviews should be no longer than 10-15 minutes.

It is often useful to send a letter, or call to arrange a time to conduct the interview; particular care should then be exercised to keep that appointment with the respondent. It is also important to provide contact information and telephone numbers in case there are any questions. Some B2B respondent types can be particularly challenging to recruit and gain cooperation. It is advisable to be very flexible with these hard-to-reach populations. Providing more than one mode for completing the interview (e.g., phone, web, mail, in-person) may be necessary, but in such mixed-mode surveys, analysis must address the possibility that response mode may affect the measures obtained. Similarly, while flexibility of where a phone interview is obtained will improve response rates, care must be taken that alternative settings do not affect the measures being obtained.

The process of defining and finding the correct respondent, getting through the gatekeepers, as well as recruiting and conducting an interview with a business executive is much more difficult than calling someone at home for a regular consumer or customer interview. B2B interviewers need to have much more training and experience. When choosing a company to do B2B research, it is a good idea to look for a data collection service that specializes in B2B or that has a separate department of interviewers trained for it.

F. Employees

Employee research refers to studies among a sponsoring company's employees (for example, doing research on how engaged the employees are in providing customer service).

Defining the target population

When conducting employee research, it must be decided who should be included, based on the research objectives and what is appropriate. It is usually best to conduct a census of employees, since conducting the survey among a sample gives some employees the impression that their opinions do not count. In addition, it is usually not possible to report at the workgroup level unless a census is conducted. Where certain employees are omitted from an employee survey, the employer or HR representatives should be advised to communicate the rationale to them while the survey is being conducted.

If contract or part-time employees are included, extra care must be taken to make sure they realize that they are supposed to respond. Also, for legal reasons, it is advised to differentiate contract from non-contract employees, with a cover letter or survey instructions; otherwise, the company might later be held liable and required to treat them as regular employees in other ways, such as dismissals and benefits.

If union employees are to be surveyed, it is proper to inform and discuss the survey with the union representatives before conducting the research. Union representatives' buy-in and assistance will be critical to having a high response rate.

Issues with targeting

Although it would seem easy to find an organization's employees, in fact, developing a good employee sample list is often the most time-consuming and difficult element of this type of study. With acquisitions and mergers now a common occurrence, HRIS (Human Resource Information Systems) programs are often difficult to integrate from one business unit to another, and the employee information included in an HRIS program is often out of date.

An employee or manager sample list should include relevant information regarding the organization's structure, e.g., who reports to whom. This can be particularly complex for matrix organizations, where there is not a linear hierarchy and someone can report to more than one supervisor. Other information to consider including on an employee list can consist of date of hire, age, gender, union status, race, ethnicity, location, and employee type (exempt, non-exempt, seasonal, contract, etc.).

Gaining cooperation

The primary challenge of employee research is gaining the confidence of employees that their participation will be both meaningful and confidential. In addition, successful employee studies require strong post-survey communication plans that fit the culture of the organization.

The best way to gain employee confidence that the results will be meaningful is for the company to share the results with the employees and to act appropriately on them. To ensure confidentiality, it is best to have a third-party service collect and report the data, while repeatedly promising that the results will be confidential.

Gaining cooperation: Confidentiality issues

If there is a promise of confidentiality there must be a commitment to that promise. To ensure confidentiality, employee-level reporting should not be allowed under any circumstances to any level of the company. In fact, there should be strict rules – shared with employees – about how data should be aggregated and reported. For example, no sub-groups will be reported on any question unless five or more employees have responded.

Another issue related to confidentiality with employee surveys is the handling of open-ended questions and verbatim responses. Oftentimes a verbatim response can include information or writing styles that can identify the respondent. Verbatims, if provided, should be cleaned to prevent this as much as possible, as well as grouped in large number to lessen the chance that someone's style will be noticed. The best way to protect employee confidentiality is not to ask open-ended questions, or to provide only coded responses.

Gaining cooperation: Communication issues

Unlike a survey to those outside the organization, an employee study requires a communication plan with constant promotion before, during, and after the survey has been conducted. Employees need to know how the survey will be used and what to expect during and after the process. How will they receive the survey? Does the survey have an identifier, and how will that identifier be used? If a paper survey, will it be distributed in groups or individually, and will they be asked to return the survey to someone they trust or in some other way?

When employees are given the survey, they should be informed of the timeframe they have to complete it. Also, it is best to let them know that they will be paid for the time it takes to complete the survey. The easiest way to pay them is to allow them to take the survey at work.

Gaining cooperation: Mode options

There are many mode options for employee research. The easiest is a web survey, but employees may not trust a survey's confidentiality if it is conducted over the company's Intranet. In addition, a web survey will not be successful unless all employees who should participate have web access. Paper surveys are often distributed or proctored at work, but sometimes are mailed to employees at work or home. When distributing it at work, it is important to remember to include those employees who work from home or outside normal locations. Due to costs, outbound telephone is a rarely utilized mode for employee surveys, but IVR is a

common alternative that works well for many organizations. Having an employee survey hosted by a third party helps to assure confidentiality.

G. Children

Research among children refers to studies among persons under the legal age in that country.

Survey instrument design

The primary challenge of research in which children are the target is designing a survey that will be appropriate for the cognitive age or ages being surveyed. If questions are worded differently to address cognitive differences in age groups, it may be difficult to compare perceptions and opinions across different age groups.

Depending on the age of the children, a survey for children may need to depart radically from the type of questions asked of adults. For example, scale points generally used among adults (excellent-poor, strongly agree-strongly disagree, anchored 5- or 10-point scales, etc.) do not make much sense to pre-teens. For pre-teens it is best to use simple 3-point scales with each point defined in a language they can understand (e.g., “great,” “okay,” “bad”). In written surveys, it can be helpful to show pictures, such as happy faces, neutral faces, and sad faces to describe scale points. Obviously, to confirm whether children will understand and respond to specific survey questions, conducting pre-quantitative focus groups and/or pre-testing surveys with several children across all age categories is imperative.

Another factor in survey design for children is to make sure the survey is as short as possible, since children do not have the attention span or patience that adults typically have. The younger the respondent, the shorter the survey should be. Surveys among pre-teens should run under 10-12 minutes, if possible. A good rule-of-thumb is about one minute per year of age of the child.

Gaining cooperation

Incentives can be important when conducting surveys among children. Money can be an incentive, as can toys. Food can be an inappropriate incentive, as some parents may not approve of the foods provided for their children due to health, allergies, or other food restrictions.

There are important legal and ethical issues to research and to consider when conducting surveys among minor children. For example, obtaining the consent of both the child and the parent or guardian is necessary for anyone age 16 or younger, and it is also usually appropriate to invite the parent or guardian to monitor an interview.

H. Multiculture

Multiculture research generally refers to studies among various ethnic and racial cultures within the United States. Technically, virtually any sub-set of the country (a religious group, a state, a heritage, etc.) could be considered a culture apart from the rest of the nation's culture.

Cultural identification is more of an issue in some types of studies than others. Evaluation of an advertising campaign aimed at Hispanics will need to distinguish Hispanics from non-Hispanics and may require further sub-sets among Spanish-speaking Hispanics and non-Spanish-speaking Hispanics.

Defining the target population

It is important to distinguish the difference between an ethnicity and a race. Ethnicity may refer to whether or not someone is of Hispanic origin. Race refers to whether someone is Caucasian Mongoloid, etc. Thus, technically, someone who is Hispanic must also be classified by his or her race. Likewise, someone may consider himself or herself to be Polish or Irish, but his/her race is considered to be Caucasian. Polish or Irish would be considered his/her heritage.

Issues with targeting

Finding the respondents for a multicultural study can be difficult in some cases when the incidence is low. This can be mitigated by using listed samples or, in some cases, using government census data to pinpoint areas of the country where higher concentrations of a certain cultural group are more likely to reside.

The use of listed samples for cultures, however, is notoriously unrepresentative. The lists usually have multiple sources and are based on common family names. Family names, for example, can be misleading due to marriage.

Focusing on areas of the country with high concentrations of certain cultural groups also has its pitfalls, since it excludes those who live outside these concentrations. In some cases exclusion may be acceptable (for example, if looking for Spanish-speaking Hispanics, they are much more likely to live in concentrated Hispanic areas anyway), while in other cases this may be less acceptable (for example, if looking for Black or African-American respondents, those living in concentrated areas are more likely to be different in terms of income and education than those living outside of concentrated areas).

Survey instrument design is discussed in the chapter on questionnaire design.

It is important to keep in mind that some questions may be interpreted differently depending on the culture. It is important to pre-test a survey to make sure it works well within all cultures being targeted or included in a study. It is best to refrain from using slang or complicated language when doing cross-cultural research. If there are any questions on the use or relevancy of any terms, finding

a “key informant” or conducting pre-quantitative focus groups among the culture can be very helpful.

Analysis

It can be difficult, if not impossible, to compare results across cultures, particularly regarding attribute or scale ratings. As a general rule, research shows that Hispanics tend to be more likely than non-Hispanic respondents to use extreme points on a scale, particularly positive ones (see Sandra Eubank and Leah Robinson¹², 1999, Laurent Flores¹³, 1999, and Jorge García-González¹⁴, 1999), while Asians are more likely to refrain from extremes and use midpoints. Thus, typically, Hispanics give higher ratings than average and Asians give lower ratings than average. When comparing attribute ratings across cultures, one can easily be misled to believe that Hispanics are more favorable and Asians are less favorable when this is only the result of cultural differences rather than actual differences that will be linked to behavior. However, this varies greatly between consumers and B2B respondents. Data from B2B respondents tend to be very consistent globally.

I. Multicountry

Multicountry research refers to studies across countries other than the United States. The key considerations when conducting multicountry studies are finding the respondents one needs to interview and ensuring that the survey instrument is appropriate.

Issues with targeting

Finding the respondents can be difficult when sample frames for random-digit-dial interviewing or in-person surveying have not been established. In many countries, it is inappropriate to conduct a random population study over the phone because telephone penetration is so low. Of course, if the product or service being researched is only targeted among consumers who are wealthy enough to own a phone, then low telephone penetration is not necessarily a problem. Nevertheless, in many countries it is still more common to conduct door-to-door in-person household interviews than phone interviews. In most of these countries, studies are conducted typically in major metro areas rather than across the whole country. These metro areas have been mapped and sample frames established to designate neighborhoods and houses based on the perceived socioeconomic status.

The quality of listed samples for countries outside the United States varies tremendously, although for B2B interviewing it is necessary to have a list. From a practical perspective, the best approach is to understand how the available lists are compiled and choose the one that is the highest quality and best meets the needs of targeting the population type required for the study.

Survey instrument design

To ensure that the survey instrument is appropriate, it is typically important to translate it. Even in countries where English is the national language, phrases and words can have different meanings. When translating to another language, the process should involve at least two people conducting separate, simultaneous translations to compare and contrast differences. Once a final translation is agreed upon, it should be back-translated into English by a third person so the primary researcher can check it.

Some languages, such as Spanish, are difficult to translate because they have several dialects depending on the country of origin. When translating a survey from English, expect that its average interviewing time will be longer. Isabel Valdes¹⁵ notes that a text translation from English to Spanish usually adds 15% in text. Marin and Marin¹⁶ advise researchers that “interviews will take on average 15 minutes longer with minority respondents” based on their extensive research with Hispanic populations. Consequently, a researcher should plan that interviews in Spanish will take from 15-50% longer than the same interview in English, depending on the number of open-ended questions and the length of the survey in English.

Some questions may be interpreted differently depending on the country, or may differ even within a country. For example, when conducting research in Switzerland, although one country, there is Swiss German, Swiss Italian, and Swiss French, so three different translations are required. It is important to pre-test a survey to make sure it works well within all countries included in a study. It is best to refrain from using slang or complicated language when doing multicountry research. As noted previously, if there are any questions on the use or relevancy of any terms, finding a “key informant” or conducting pre-quantitative focus groups in the countries can be very helpful.

Analysis

It can be difficult, if not impossible, to compare results across countries. Generally, the samples and methodologies are not the same. Phone interviewing may be used in Canada, while in-person is used in Mexico. The sample frames for interviewing are compiled differently from country to country, making it impossible, for example, to compare the nationwide sample for Canada to the major metro sample for Mexico. As with multiculture studies, it is also inappropriate to compare the results of attribute or scale ratings across countries. As a general rule, Latin American respondents tend to be more likely than other respondents to use extreme points on a scale, while Asians are more likely to refrain from extremes and use midpoints. Thus, typically, Latin Americans give higher ratings than average and Asians give lower ratings than average. When comparing attribute ratings across countries, one can easily be misled to believe that Latin Americans are more favorable and Asians are less favorable when this

is only the result of cultural differences rather than actual differences that will be linked to behavior.

Timing

One particularly challenging aspect of multicountry research is determining the most appropriate time of year to conduct the study. For example, it is best to avoid the summer months when conducting research in Europe because it is common for Europeans to take month-long vacations. While Easter is a weekend holiday in the United States, it is common to take the entire week off for Easter in Mexico. If not planned-for in advance, holidays can sometimes greatly extend the fieldwork period for a study and impact the ability to adequately reach the target audience. It can be particularly challenging to conduct a global study and find the best time to interview simultaneously in all countries. Always contact local affiliates or associates to understand the impact of interviewing during specific times in their countries.

Management

If interviewing in more than just a few countries, it is critical to establish centralized coordination, communication, and standards. As much as possible, it is helpful to use the same survey (translated, of course), even if there are skip patterns so that certain questions are asked in different countries. This will allow the data file to be compiled identically for each country to ensure that reporting is error-free and as efficient as possible. From a practical perspective, even though it is a challenge due to holidays, it is easiest to maintain an identical survey instrument and data file if the research is conducted simultaneously across countries.

To maximize efficiency and ensure consistency, it is best to centralize data processing in one country. However, there are important legal issues to consider when conducting international research and transferring data across borders (see section on Legal and Ethical Issues). If a mail study is being conducted, it is usually most efficient to have individual surveys returned to a local affiliate, where they are collected and then express-shipped en masse to the United States or some other central location. In such cases, do not assume that one express shipping company is most appropriate in terms of rates or quality of service for every country in the study. Contact local affiliates or associates to determine which shipping companies are acceptable.

12. Limitations - Final Checklist

The overall quality of a study is based on the combined effect of the quality of design and implementation in each specific area of survey conduct. The following set of questions or checklist is a good basis for reaching an overall understanding and appreciation of a study's design:

- A. Is the study reliable?
- B. Is the study valid?
- C. Are the measures and experimental design sufficiently sensitive?
- D. Can the results be generalized?

A. Reliability of the Study

The question of reliability is concerned with the precision of the study, in terms of how the results of the study, based on a sample, differ from what would be found based on a study of the entire universe. That is, what is the sampling tolerance or error?

As a supplier, your reporting of data from sample surveys should carry understandable and correctly calculated information on the statistical reliability of the major findings or a statement that the reliability cannot be computed. If probability sampling is used and an adequate response rate obtained, the margin of sampling tolerance in survey results can be estimated by the application of statistical methods, based on the mathematical theory of probability. Calculation of sampling tolerance margins should take into account the nature of the sampling design (e.g., clustering, disproportionate selection, correlated observations, etc.) as well as the size of the sample.

Sampling tolerance margins should be stated without implying that the type of error they treat is the only one that may affect the findings. The discussion of data reliability should not obscure possible questions about the overall accuracy of the results (including non-sampling as well as sampling errors).

As the end user of the research, you should expect the supplier to provide the information detailed above; if it is not provided, you should ask your supplier to provide it as part of the report.

Special consideration is needed for **online sampling**, and therefore reliability of online studies. Online sampling can never be truly random, even when Internet penetration reaches similar levels to telephone penetration, as email addresses cannot be accessed in the same way as telephone Random Digit Dialing; the use of panels is the most likely way of recruiting respondents. Research has shown that for most research-based decisions, samples built on demographic quotas provide quality data; sample balancing and weighting also improve the quality of online data, within certain limits. However, gathering data on non-demographic variables can be important instances in which the research purpose is to arrive at absolute results.

Qualitative Research is a well-developed and valuable research method in the Market Research field, where the objectives are usually to seek the meaning and motivations behind behavior, through in-depth discussions with individuals or groups of individuals. It is not appropriate for estimating size be it market size, market acceptance, optimal pricing, etc., and, therefore, the question of sampling reliability is generally irrelevant.

Please see Chapter 5 on Sampling for more detailed information.

B. Validity of the Study

As the end user of the research study, you should always ask this question: Does the research measure what it purports to measure? A major source of potential error made in marketing research is to measure one event while claiming to measure another. For example, some studies typically measure recall of magazine readership but say they are measuring magazine readership. As another example, many research reports are based on measures of attitudes, which are either explicitly or implicitly assumed to be indicative of purchase behavior.

It is important to look for evidence that the measured event has a known relationship to the real-world event in which the reader is interested. If there are no data concerning validity, then it is necessary for the reader to make a judgment whether what is measured should be accepted as an adequate surrogate.

As a supplier you should NOT imply something which is not supported by the data. Do NOT mistake causation for association.

Please see Chapter 10 on Presentation of Findings for more detailed information.

C. Sensitivity of the Measures and Experimental Design

As either supplier or end user, it is important to consider the possibility of insensitivity when examining a study proposal or, after the study is done, when data show no change or no difference. The reader should recognize that it is quite possible to have a measure which is both reliable and valid but which is inappropriate for the situation in which it is used.

Consider each question from the viewpoint of sensitivity BEFORE the study is carried out.

One example is the use of a "brand of insurance purchased last" question for evaluating the effect of an insurance advertising campaign. It may well be a reliable measure with predictive validity. But responses to an "insurance brand purchased last" question would not be sensitive enough (or have enough relevance to the effect of the current campaign) to be suitable, the reason being the nature of insurance purchasing and the purchase cycle involved.

D. Can the Results Be Generalized?

A study may be reliable, valid, and sensitive, but still not be generalizable. For example, the results of a product test, conducted in a sample of test markets, may discriminate among selected types of consumers, the results may be replicable, and the results may accurately predict what people who shop in those markets prefer. But preferences in the category may be very localized, and the results may not reflect preferences in other markets.

As a supplier, you should make this clear both in the study proposal and in the study report.

One should also take into account seasonality, time of day of interview, and geography (within and between countries; rural vs. urban). The effect of any or all of these factors may mean that the results cannot be generalizable or only within those parameters, e.g., the month prior to Thanksgiving in New York City; or summer months in the Mid-West (not the same as summer months in Florida).

Before setting off to conduct the study worldwide in, say, November, check the different cultural festivals and religious occasions which might have an effect on the study (e.g., Dwali, Ramadan, Guy Fawkes Day, Thanksgiving, to name just a few). Check the range of: weather conditions; time zones; daylight hours; etc.

All studies are, in some degree, artificial and limited by the particular procedures used. As the end user, it is important to give serious consideration to all particulars before generalizing beyond the specific set of observations presented by the study.

-

Guidelines for Market Research

13. References

1. William A. Schieman and John H. Lingle. *Bullseye*. Free Press, 1999.
2. Leonard M. Lodish. *The Advertising and Promotional Challenge*. Oxford University Press, 1986.
3. Diane Schmalensee and Dawn Lesh. "How to Make Research More Actionable." *Marketing Research*, Winter 1998/Spring 1999.
4. For a general discussion of this point and appropriate market research techniques, see *Market Research Matters*. Robert Duboff and Jim Spaeth. Wiley, 1999.
5. "Designing an Electronic Knowledge Book: How Advanced Knowledge Management Methods Can Help Information Modeling." Lionel Medini, Jean-Marc Charlot, and Mathias Chaillot, *Technical Communication*, Volume 48, Number 3, August 2001, 275-288.
6. The Advertising Research Foundation. *ARF Guidelines Handbook*. New York, NY: ARF, 1990, p. 34.
7. *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*, second edition. The American Association for Public Opinion Research, 2000, p.19.
8. *ibid*, pp. 6-17.
9. *Incidence Guidelines*. Marketing Research Association and CASRO (Council of American Survey Research Organizations).
10. Example: the service provided by Sigma Validation in the U.S., see www.sigmapublicvalidation.com.
11. Mariampolski, H. *Qualitative Market Research*. Thousand Oaks CA: Sage, 2001, p.7.
12. Sandra Eubank and Leah Robinson. "Across the Americas: Understanding Consumer Responses and Conducting Efficient Research." , *eXperts Report on The Americas Conference*. New York, ARF, 1999, pp. 68-71.
13. Laurent Flores,. "Consumer and Advertising in the Americas: Are There Global Rules with Local Touch?" *eXperts Report on The Americas Conference*. New York, ARF, 1999, pp. 15-20.
14. Jorge Garcíá-González. "Marketing Research in Latin America: Guidelines, Challenges and Opportunities." , *eXperts Report on The Americas Conference*. New York, ARF, 1999, pp. 35-53.
15. M. Isabel Valdes and Marta H. Seoane. *Hispanic Market Handbook*. Gale Research Inc., 1995, Chapter 8.
16. Geraldo Marin and Barbara Vanoss Marin. *Research with Hispanic Population*., Applied Social Research Series, #23, Sage Publications, 1991.

Guidelines for Market Research

Appendix 1 – CMOR Respondent Bill of Rights

What Your Rights Are If You Are Interviewed

Your participation in a legitimate marketing or public opinion research survey is very important to us, and we value the information you provide. Therefore, our relationship will be one of respect and consideration, based on the following practices:

- Your privacy and the privacy of your answers will be respected and maintained.
- Your name, address, phone number, personal information, or individual responses won't be disclosed to anyone outside the research industry without your permission.
- You will always be told the name of the person contacting you, the research company's name, and the nature of the survey .
- You will not be sold anything, or asked for money, under the guise of research.
- You will be contacted at reasonable times, but if the time is inconvenient, you may ask to be recontacted at a more convenient time.
- Your decision to participate in a study, answer specific questions, or discontinue your participation will be respected without question.
- You will be informed in advance if an interview is to be recorded and of the intended use of the recording.
- You are assured that the highest standards of professional conduct will be upheld in the collection and reporting of information you provide.

Marketing and opinion research is an important part of our democratic society, allowing people to express their views on political and social issues, as well as on products and services.

* 1998 by THE COUNCIL FOR MARKETING AND OPINION RESEARCH (CMOR)
see www.CMOR.org

Guidelines for Market Research

Appendix 2 – CMOR Model Survey Openings and Closings

The introduction is a key element in obtaining respondent cooperation and can also affect the respondent's overall satisfaction with the survey process. It is the first opportunity to establish trust with the respondent and credibility in the survey, yet should be kept as concise as possible. Although the drivers for cooperation and satisfaction can be different, there are some common components that have been identified through recent research conducted by CMOR and supported by other industry research findings. The following components should be included and are reflected in the recommended model introductions, closing, and validation callback statement.

Introduction/Opening

- In order to gain trust with the respondent, the interviewer should provide their first name or agreed-upon contact name. Providing a last name is optional but is recommended for business-to-business studies or surveys involving professionals such as in the medical field.
- Provide the name of the company that the interviewer represents and the name of the client/sponsor of the research whenever possible.
- Explain the nature of the study topic/subject matter in general terms.
- State, as early in the interview as possible, that no selling will be involved as a result of the call.
- The respondent should be told in the introduction the approximate length of the survey.
- It is recommended as standard practice to obtain 2-party consent, that is, from both the respondent and interviewer that the call may be monitored/recorded for the purpose of quality control.
- Reinforce the fact that the respondent's time is appreciated/valued.
- Provide the respondent an opportunity to have their opinions included in the survey. If the interview time is not convenient, attempt to set-up a callback date and time to complete the survey.

Model Introduction

"Hello, my name is _____ and I'm calling from (company). We are calling people like yourself to gather opinions regarding (general subject), and are not selling anything. This study will take approximately (length) and may be monitored (and recorded) for quality purposes. We would appreciate your time. May I include your opinions?"

Closing

- At the conclusion of the survey, thank the respondent for their time.
- Include a short statement that states your desire that the respondent had a positive survey experience and encourages them to participate in future market research projects.
- Remind the respondent that their opinions do count.

Guidelines for Market Research

Appendix 2 – CMOR Model Survey Openings and Closings – continued

MODEL CLOSING

Thank you for your time and cooperation. I hope this experience was a pleasant one and you will participate in other market research projects in the future. Please remember that your opinions count! Have a good day/evening.

Guidelines for Market Research

Appendix 3 – Guidelines Review Board

We gratefully acknowledge the valuable suggestions and support of the ARF Review Board members who assisted in the development of this document.

Robert Berger, Roper NOP Consulting
Marianne Foley, Harris Interactive
Dawn Lesh, A. Dawn Lesh International
Larry Mock, Taylor Nelson Sofres
Jane Sheppard Miller, CMOR
Howard Moskowitz, Moskowitz Jacobs Inc.
Bill Moul, Sequent Partners
Larry Stanek, Minute Maid
Alain Tessier, Mediamark