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Methodological Disclosure: The Foundation For Effective Use of Survey Research

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Abstract

A survey of marketing executives and a content analysis of their most recent survey research report reveals that most methodology descriptions are sketchy, at best. Important details about the sampling plan and other procedures are often omitted or loosely presented, leaving the reader insufficiently informed about the foundation that the study was built upon.

Introduction

In most instances survey research conducted for the benefit of a marketing decision-maker is not performed by that person. Typically it is done by an in-house researcher alone or in conjunction with an outside research firm, or by the latter in totality. As a result, the decision-maker often does not have intimate, hands-on knowledge of the research methods which were used to collect and analyze the data and the choices made in the sampling process. In some cases decision-makers have the desire to know and the ability to understand the research methods, while in other cases they have only the desire, only the ability, or neither. It is the contention of these authors that knowledge of the research methods used can provide both short and long range benefits to the firm in terms of more accurate decision-making and more favorable financial results.

The Importance of Having Knowledge of Survey Methods

Having the decision-maker aware of the research methodology of a survey is important for two distinct reasons. First, and foremost, the methods used may have a profound influence on one's interpretation of the findings, which might have an eventual bearing on a decision. In fact, Wheatley (1973) feels that the researcher's methods are as important as the results because they may influence or even determine the results. This feeling is also shared by Babbie (1973, p. 339) who notes that a report containing interesting findings and conclusions can be very frustrating when the reader is unable to determine the methodological design and execution of the study. The reason for the frustration, of course, is that without detailed methodological insights the decision-maker cannot be assured that the methods are non-biased and that the results are generalizable to the population of interest. Without these assurances, most prudent decision-makers would feel a great deal of risk or uncertainty in using the research as an important input into strategy formulation. To make an analogy, the research methods are to a study's results as the foundation is to a house. Without a solid foundation, the quality of a house (or research results, in this case) are suspect.

The second reason for having an understanding of one's research methods is often a less immediate concern, but is, nonetheless, important. A detailed, operationalized methodology allows for replication, and, as such, can act as a blueprint that can be followed later. Whether the person replicating the study is the same or different, Babbie (1973, p. 341) feels that he or she should be in a position to completely replicate the entire study independently--that is be able to identify the same population, select the same size sample, collect the data in the same manner, and execute the same analysis.

Whether or not the same conclusions are reached can depend upon differences in time frames, environmental influences, or population selections. Replication is at the heart of generalization of any body of knowledge (Farley, Lehman, and Ryan 1981). Therefore, if a study is replicated a number of times, perhaps even over different time periods and populations, and similar findings occur, one can have greater faith that the findings can be generalized. As such, replication is a hallmark of scientific endeavor, but it can also benefit applied researchers who are attempting to determine temporal or situational stability of the research results.

Even with its benefits, replication of research efforts has

been more the exception than the rule. Business organizations often lack funds to replicate studies or feel that money appropriated to research should be used for additional opportunities. Academic researchers often shy away from replication because they know that journal editors are looking to break new ground or because methodological detail is missing from a published study one wants to replicate. According to Reid, Soley, and Wimmer (1981, p. 11) editorial policy, due to space limitations, may be partly at fault. There is often simply not enough journal space available to allow elaborate procedural explanations to be included. In some cases the details can be obtained by contacting the original researcher, but evidence by Reid, Rotfeld, and Wimmer (1982) indicates that in one-half of their requests to academic researchers, materials were either not available or the researchers did not respond to informational requests.

Methodological Detail Is The Key to Replication

Numerous scholars have noted that many studies lack sufficient methodological detail to reconstruct what actually was done (Bowers 1970; Innes 1980; Kelley, Chase, and Tucker 1979; Smith 1970; Wheatley 1973). In fact, this phenomenon prompted one set of researchers (Smith, Smith, Scheffers, and Steinman 1971, p. 3) to state that manuscripts submitted for publication to one psychological journal give evidence that "training to perform research has been better than the training to report it."

Two empirical studies provide concrete evidence which supports the aforementioned opinions. Armstrong and Soelberg (1968), in a content analysis of psychological, educational, and marketing studies found that the methods provided did not provide enough information about the researchers' choice of actions. Consequently, the possibility for other researchers to replicate the research is lessened. In another content analysis involving 659 articles published in the *Journal of Marketing Research*, Permut, Michel, and Joseph (1976) noted that the lack of methodological detail in sampled articles made it difficult to replicate or cross-validate research studies. They found, for example, that 76 percent reported the samples' occupation, 40 percent reported the samples' gender, 57 percent specified geographic information, while only 13 percent noted the samples' age range. They, further, found that the sampling procedure was provided in about one-third of the studies, while the sampling frame and completion rates were indicated in 51 and 58 percent of the studies, respectively. The problem with methodological omissions such as these, according to Katzer, Cook, and Crouch 1982, p. 34) is that there is no particular strategy for detecting them. Evaluating what is not included is difficult because it usually requires some fundamental knowledge of research methods. Possessing this level of knowledge is an assumption that cannot be made for all marketing practitioners or academicians, for that matter. In fact, only 30 percent of this study's respondents had any formal educational training in survey research. Without this exposure it is difficult, if not impossible, to detect methodological omissions or biasing commissions that might compromise the integrity of the data and potentially contaminate the accuracy of one's decisions.

Purpose of This Study

The Permut, Michel, and Joseph (1976) article provided the inspiration for this pilot project. The principle goal of this exploratory study was to determine whether commercial survey research reports contain sufficient methodological detail so that research methods can be understood and replicated. If the results pointed out insufficient detail, it would strongly suggest that the issue of disclosure needed further, full-scale examination. It is felt that methodological omissions in commercial studies are even more critical than in academic research since the vast majority of academics have had at least some research training, while the same cannot be said for marketing practitioners.

Research Methods Used in the Study

The main problem the authors anticipated in the pursuit of this information was the proprietary nature of the studies themselves. Researching academic articles that are publicly available is one thing, but obtaining cooperation from practicing marketers is quite another. Two strategies were pretested to determine which would yield the greater amount of cooperation. Both marketing research organizations and marketing managers within firms were contacted in the pretest. Very little cooperation was found among the researchers, however, slightly more willingness was found among the marketing managers to supply the requested information.

The population to be surveyed consisted of marketing managers within middle to large-sized firms within the United States. A systematic random sample of marketing executives was chosen from a Standard and Poors mailing list. Approximately five percent were returned because of inappropriate addresses, persons no longer associated with the firm, etc. Of those who responded, the average firm size was 250 employees, with 80 percent reporting 101 or more employees.

During August 1986 the pilot study was mailed to the selected executives. The contents included a brief questionnaire and cover letter, a self-addressed business reply metered envelope, and a form requesting a summary of results. In the cover letter and at the end of the questionnaire the respondents were asked to send a photocopy of the research methods section from their firm's most recent survey research report. They were invited to black out any information in order to maintain company privacy and were assured that the information would only be reported in the aggregate. Instead of what was requested a few firms sent focus group reports, which were not included in

the final sample.

Forty useable survey research methodologies were received, which provide the basis for this content analysis. Although this response rate (8 %) is small, it is within the 7-10 % estimated range for related studies given by the mailing list broker. A size of 40 is reasonable given the exploratory intentions of this study. The researchers merely wanted to examine patterns in the data, not offer projectable results. No attempt was made to mail a second wave or test for non-response error due to the one-time use restriction on the list lease imposed by the list broker.

The research method sections of the 40 survey research reports were content analyzed by two trained judges. Because of the factual nature of the data (e.g. the sample size was either indicated or not), the interjudge reliability was well above the acceptable level of 85 percent suggested by Kassarjian (1977). The items to be content analyzed were primarily based upon The Principles of Disclosure recommended by The National Council On Public Polls (1979), with additional items suggested by the Permut, Michel, and Joseph (1976) study and this study's authors.

Results and Discussion

A brief questionnaire was administered to yield demographic information that could be used to better understand the type of firms that the research reports were prepared for. In addition to the previously-reported data on firm size, respondents averaged four marketing research projects per year with one-third having research budgets exceeding $50,000 annually. Two-thirds of the respondents reported having one or more individuals in their firm primarily involved in marketing research. Half of the respondents reported their title as marketing manager, while 30 percent were marketing research managers.

The primary results of this pilot study are presented in Table 1. This data indicate the relative frequency for which two dozen methodological aspects are disclosed in the research methodology section of survey research reports. It should

Table 1
The Frequency That Methodological Details Are Documented in Research Reports

Methological Aspect	Proportion of Studies Where Survey Aspect Is: (horizontally percentaged) Reported	Not Reported	Not Applicable
Time Frame	42.5 %	57.5	0.0
Type of Survey	87.5	12.5	0.0
Population Definition	92.5	7.5	0.0
Sampling Frame	52.5	47.5	0.0
Respondent Gender	27.5	40.0	32.5
Respondent Age	22.5	47.5	30.0
Respondent Occupation	42.5	55.0	2.5
Geographical Scope	62.5	37.5	0.0
Sampling Method	20.0	80.0	0.0
Random Selection	40.0	60.0	0.0
Sample Size	80.0	20.0	0.0
Sampling Error	17.5	82.5	0.0
Confidence Level	12.5	87.5	0.0
Variance Estimate	5.0	95.0	0.0
Response Rate	15.0	32.5	52.5
Recontact Efforts	7.5	75.0	17.5
Substitution Rules	2.5	97.5	0.0
Compensation for Non-Response	10.0	82.5	7.5
Supervision Details	2.5	85.0	12.5
Authenticity Checks	20.0	70.0	10.0
Type of Analysis Performed	12.5	87.5	0.0
Complete Written Report	85.0	15.0	0.0

be noted that in some cases the classification of "not applicable" was employed when the methodological aspect had little relevance to the intent of the study. An example is disclosure of gender and age of respondents when the study focused on company behavior.

Type of Survey and Time Frame

Understanding the type of survey utilized (e.g. mail, telephone, etc.) can provide insights into anticipated depth of responses, response rates, and authenticity. In 87.5 percent of the cases disclosure was made as to the type of survey.

Another important factor to understand is the time frame in which the study was conducted. This not only helps one to judge the age of the data but can provide insights into any environmental factors that might have influenced the study at that time. An illustrative example is that a survey of individuals in Chicago was taken to determine their ground transportation habits. It just so happened that the data was collected during one of the major political party conventions, and, as might be expected, a majority of respondents indicated the use of a taxi. In this pilot study, less than one-half (42.5 percent) of the research reports included any reference to the time element.

Survey Sampling

One of the most important methodological disclosures is sampling strategy. This not only provides insights into who was to be interviewed, but also in what quantity and how. Without such knowledge it is impossible to accurately generalize the findings and assess possible sources of bias. In 92.5 percent of the cases reported, methodologies did indicate the definition of the target population.

In less than half (42.5 percent) of the instances, however, was the population operationally defined. Population definitions were loosely defined in another one-half of the cases. These latter statistics are not included in Table 1, but are presented to enhance one's understanding of the quality of the population definitions.

Closely aligned to the population definition is the sampling frame which was used to represent the population. The frame could be from a list service, directory, computer file, or the like. Some frames represent targeted populations better than others, meaning that some overlap while others underlap specifications. As an example, one might be interested in surveying teenaged girls, but the frame includes girls from 11-20 years of age. In slightly more than one-half (52.5 percent) of the cases was the frame revealed in this sample's reports, leaving a substantial proportion of readers in a position of having to trust the researcher's choice.

Demographics such as age and gender of the respondents were acknowledged in approximately one-quarter of the instances, with occupation disclosed 42.5 percent of the time. These results should be tempered by the fact that some of the studies were of a business nature where age and gender were less relevant than company characteristics. However, in any case, be it consumer or business research, one's occupation (job title) would appear to be relevant. The geographical scope of a study could also have a bearing on the generalizability of the results. In this sample, 62.5 percent of the research reports noted the location details of the respondents, leaving three-eights of the readers unaware of the scope (local, regional, national, or international) of the geographical coverage.

Knowing which sampling method was utilized and whether or not randomization was employed gives one insights into the sample's generalizability and possibilities of bias. It also provides key insights into how to replicate the study. Given the extreme importance of these disclosures, it is disturbing that a mere 20 percent of the reports disclosed the sampling method(s) used. In addition, only 40 percent gave the impression that randomization was employed in the sample's selection. Without random procedures, a sample could be biased, which can affect the accuracy and generalizability of the reported results.

The size of the samples employed was noted in 80 percent of the reported cases, however, the statistical principles underlying the size were noted only occasionally. Specifically, the sampling error, confidence level, and variance specifications were reported in 17.5, 12.5, and 5 percent of the cases, respectively. Knowledge of the magnitude of the sampling error and range of the confidence interval are critical to understanding the sample's precision. In the vast majority of cases this detail was omitted.

In 15 percent of the reports the study's overall response rate was noted, while in another 32.5 percent of the cases it was not. In slightly over one-half of the cases, response rates would have been more difficult to present because of recontact and random substitution decision rules often used with telephone and face-to-face studies.

An understanding of the sampling strategy can also be enhanced by knowledge of the efforts at respondent recontact and substitution along with efforts to compensate for non-response. These specifics were noted in 7.5, 2.5, and 10.0 percent of the cases, respectively. If a respondent was not available after one or more contact attempts, the reader, then, would not know what the researcher did from there to seek their next respondent.

Survey Field Controls

Much of data quality can be attributed to the process of training, data collection, and interviewer supervision. In a mere 2.5 percent of the reports were details disclosed

about the supervision of data collection. Also, in only 20 percent of the cases were attempts at determining the data's authenticity noted. Although the performance of these activities typically takes place, omitting them from the report might imply to some that it did not take place.

Type of Analysis and Report

The type of analysis performed on the data, although apparent to some by perusal of the report's tables, was noted in 12.5 percent of the methods sections. Inclusion of this information is important because it can give the reader an understanding of what the technique is, what it does and why it was chosen over other alternatives.

In 85 percent of the cases the respondents noted that their survey was communicated within the context of a complete written report, as opposed to an abbreviated form such as a summary of findings or data tables along with a statement of methodology. The benefit of a full report is that it provides a context for the findings. Insights into the data, conclusions, and even recommendations are often offered in this type of report which often provides the decision-maker with a different, perhaps fresh viewpoint.

Conclusions

Based upon this pilot study of reported survey research methodologies, it appears that decision-makers were provided with only the bare essentials about how their studies were conducted. This is tantamount to making a decision without key facts or, more seriously, gambling with the firm's resources. This analogy is justified because, first, resources are spent in conducting the survey whose methodology is not completely reported and, secondly, because a decision-maker without the background behind his or her facts is risking the firm's future revenue stream because of his or her "impaired vision." In this case if an individual, because of methodological omissions, makes an erroneous assumption which leads to a bad decision, one can justifiably conclude that what the person does not know can hurt them. Further, the absence of this operationalized detail makes the studies difficult, if not impossible, to replicate or cross-validate at a later time.

In who's best interest is this limited disclosure? First of all, providing the bare essentials of the research methods to the decision-maker allows the person or firm who conducted the study to be the only one who would know how to replicate it should a similar study be needed. Another benefit to researchers is that they can rationalize their (in)actions by sparing the busy marketer from having to be exposed to all that scientific methodology, which many could care less about. In the short run, a busy manager might appreciate being spared the details, but in the long run they might need to justify the study to others or desire to replicate it.

It might be interesting to determine whether or not marketing managers feel that full methodological disclosure is important. Unfortunately, this issue was not investigated in this study. Hypothetically, though, if the bulk of managers felt that full disclosure was not valuable to them for whatever reason, does that make it ethically and professionally justifiable for a researcher to omit the detail? Conventional wisdom says no because most assuredly the "benefit" of knowing how clean the data is should exceed the "cost" of spending an additional few minutes reading and interpreting two pages of methodology.

Another advantage that the researcher might enjoy from lack of full disclosure is the understanding that what is out of sight is out of mind. When less detail is offered, there is less to defend and often fewer inquiries from non-research persons whom researchers might perceive as persons who just do not understand. These researchers are essentially asking their audience to "just trust me." This is hard to fathom in a field where there is no certification and where the only things one needs to practice research are a business license and a shingle. This is not to say that all researchers are malpractice prospects or malicious in intent, but some work primarily in their own best interests rather than in the interests of the research buyer. Further, because of the great variability in researcher competence, one should be cautious when using others' results.

If the research was done in a professional, non-biased manner there is really nothing to hide, and therefore, no reason to spare the research user methodological details--unless the short-sighted manager requests the omission. When the operationalized methodology is detailed, theoretically, everybody wins. The researchers unveil and are able to defend their decisions, and the research users have an understanding of the study's foundation and an archive in case the need for future inquiry presents itself. Prudent, professional managers should, therefore, request full disclosure from their research suppliers. The data in this pilot study is testimony that if one does not press for detail, one is not likely to get it.

Although these conclusions are drawn from a small pilot study, the patterns of data are quite revealing. These findings suggest that future investigations into this phenomenon are, indeed, warranted and that marketing managers who do not have the benefit of full disclosure are running the risk of making less than informed decisions.

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