

## Research By Convenience

In economics the phenomenon of a poor currency driving out a good currency is widely known, and goes under the name of Gresham's Law. In consumer research, a similar phenomenon may be taking place. This phenomenon is the tendency for researchers to turn increasingly to convenience samples and forego probability samples. The simple rationale seems to be that consumer behavior is a basic form of human behavior, and it therefore makes little difference who are the subjects as long as they are breathing ever so slightly.

Unlike probability samples, with a convenience sample the selection cost is minimal, simply because the sample is selected on the basis of just that, convenience. The object in that case is not to measure any sampling errors or biases (although sampling error formulas may erroneously be applied to these data) but rather to make it as simple and economical as possible for the researcher to get a set of data. For this reason, it is not surprising that a convenience sample for a commercial researcher may be people picked up on a street or in a shopping center, while for an academic researcher a convenience sample is usually whatever classes that individual happens to be teaching at the time. To judge by the pages of *JCR* and other publications presenting consumer-related studies, the popularity of convenience samples is growing by leaps and bounds. The purpose of this editorial is to try to deflate this boom.

### BASIC CRITERIA

Before focusing on convenience samples, it would seem desirable to point out that any type of sample for consumer research should satisfy three basic criteria from an analytical point of view. First, the relevance of the sample, or of the target population, to the topic under study needs to be firmly established. To ask a sample of college freshmen about how they plan to spend their retirement years, as was the case some years ago, is a clear case of lack of relevance. In other instances, however, the relevance of a topic for a particular sample may not be at all clear. For example, how relevant to a sample of college students would be

a questionnaire dealing with bicycle preferences? Certainly, it would be highly relevant to students who use bicycles. The fact remains, however, that many students do not use bicycles and, with regard to bicycle preferences, could not care less. Until the necessary distinction is established, the relevance of the sample remains in doubt.

The point is that relevance is by no means obvious, and should not be assumed. If any question exists, it is the duty of the researcher to establish that relevance does exist.

Second, the sample size must be adequate for analytical purposes. In the case of probability samples, this means that the sample size should be such that the error ranges are not so large as to camouflage the real effects that might exist due to experimental or other variables. In the case of convenience samples, sample sizes should be large enough to yield some feeling of stability in the results, though how large these samples ought to be for this purpose cannot be answered in a general sense, precisely because of the convenience nature of the sample. We do know, however, that variability among individuals on virtually all characteristics is substantial, so to have only a very small number of individuals in a particular treatment is likely not to yield much stability in the results.

Still a third criterion is that the subjects should be representative of the population being studied. For a probability sample, there are clear rules for establishing such representativeness, such as requiring that every individual in the population have a known probability of being selected in the sample. For a convenience sample, the determination of representativeness is much more subjective. About all that can be said in a general sense is that it is once more the task of the researcher to show that the sample is in some way representative of the population, perhaps by comparing the distributions of the sample and of the population by characteristics relevant to the topic under study. Non-response bias and other sampling problems must still be considered in evaluating the results.

Other criteria could also be suggested for sample selection and composition but these are sufficient, it would seem, to bring out the fact that from an analytical point of view these two types of samples should satisfy similar criteria. It should also be sufficient to point out that, at least as far as this writer is concerned, it is not sufficient to say something like, "the subjects for this study were 83 students at Lower

\* This is the first in what we hope will be a series of editorials by members of the editorial staff of *JCR*. The views expressed here do not necessarily reflect those of the editorial or policy boards of *JCR*.

Slobovia State University" and then proceed to formulate and test highly sophisticated behavior models. If the researcher cannot justify the use of that group in terms of the preceding criteria, there is no reason why the GIGO principle should not be applied immediately, namely, "garbage in, garbage out."

### WHAT ELSE IS A STUDENT GOOD FOR?

Does this mean, then, that convenience samples have no place in consumer research, and that students have no use but to serve as a captive audience for demonstrating one's intellectual superiority? Clearly, this is not necessarily so. Convenience samples of students, housewives living it up at a tea party, or groups like the Elks, the Moose, or the Vodka Vixens do have a place in consumer research, provided they are used appropriately.

One justifiable use of a convenience sample is for exploratory purposes, that is, to get different views on the dimensions of a problem, to probe for possible explanations or hypotheses, and to explore constructs for dealing with particular problems or issues. For example, in planning a study on the effect of additional children on family life styles, exploring various aspects of this question on a convenience sample of families that have had children fairly recently could be very useful. It is important to note, however, that the sample in this case must be shown to be highly relevant to the topic under study. The same questions put to college freshmen or to people in an old age home is not likely to yield exactly the same information (and might give the older people ideas they should not be having).

Still another use for a convenience sample is to illustrate the application of some new method or technique. Data from a convenience sample can convey a much better feeling of realism than if the example came from, say, a table of random numbers. Thus, a convenience sample could generate distributions not originally anticipated, and that would suggest improvement

in the technique. Especially for this reason, a strong argument can be made that the group should have clear relevance to the topic under study; otherwise, the patterns of replies and distributions obtained might be so unrealistic as to throw doubt on the value of the technique.

Still another use for a convenience sample is where research is based on the accumulation of case studies. For example, in a study of social groups, the samples may comprise or be selected from the membership of particular clubs meeting certain eligibility requirements. In carrying out such a case-study, or clinical, approach, it would seem especially important to ensure the relevance of the group for the purposes of the study.

These three types of situations—the exploratory, the illustrative, and the clinical—would seem to be by far the primary justification for convenience samples. It should be stressed, however, that even in these situations the relevance of the sample to the particular topic has to be established and consideration given to the adequacy of the sample size. Generalizing from the results of a convenience sample would seem to be justifiable only in a study involving a series of such samples following the clinical approach. Even then, generalizations cannot be made in any rigorous sense but more in the sense that the conclusions are likely prospects for verification by the use of full-scale probability samples.

Though much more costly, there is no substitute for probability samples for establishing results on a firm basis and generalizing to broader populations. If a convenience sample is used, its selection has to be justified in terms of the objectives and nature of the study, the relevant characteristics of the sample should be demonstrated, and the results have to be properly qualified. Following this procedure should lead to a much better study. One might then find that a probability sample is not so expensive after all and leave students to sleep undisturbed in the classroom.

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