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QUALITATIVE • *Teach a researcher to fish*

Casting finer net not necessary

By NINO DeNICOLA

In recent years, small-sample qualitative research seems increasingly in danger of being marginalized as a result of the technology-driven ability to obtain and process ever-growing volumes of data. The issue of sample size is one that has been addressed more often, at greater length and for a longer time than almost any other in the field. It is a subject held, and an area practiced, in accordance with an astonishing array of mindsets ranging from sacred awe to indifference.

SPECIAL REPORT

Strictly speaking, it is course true that sample size is related to sensitivity of the research procedure, or power—that is, the likelihood of finding, in a statistical test, a difference that, in fact, exists. The fishnet metaphor may be useful here: A fine net is one with great power, and at first glance it seems like a good idea to build a large degree of power into the research procedure as a matter of course. Yet, a look at statistical power curves indicates that the relationship of sample size to power is a negatively accelerating one: Although power increases greatly when you boost sample size from, say 20 to 50, it increases considerably less when you boost it from 50 to 75, and less still from 75 to 100.

As a practical matter, note, too, that while the rate of increase of power declines quite steeply with sample size, research costs decline much less dramatically. Moreover, the informational increment gained by increasing power often is so small or rarefied as to be irrelevant to or unusable for most marketing decisions. Accordingly, many research statisticians consider sample sizes of 30 or even smaller to be acceptable for developmental decision-making research undertakings in the so-called real world.

That last is a key point: At the front end of the strategy development process, we are comparatively more interested in validity (that is, existence and understanding of the

issues uncovered) than in reliability (such as whether a duplicate study would yield the same response frequencies). We are interested in netting large fish, so to speak.

The question may be raised: Does small-sample research run the risk of missing important findings? This can happen, but it also can happen with large samples. In fact—from a practical vs. theoretical standpoint—researchers could argue that the chances of overlooking an important piece of information are even greater in large-scale research, for economic considerations usually dictate that large-sample surveys be highly structured in format, which in turn puts a premium on so-called perfect questionnaire construction. What often results is high reliability in terms of the population's responses to particular questions, but less analytic depth and little useful relationship between those closed-system questions and answers, on the one hand, and management's planning and decision-making informational needs, on the other.

In contrast, small-sample research permits a far more intensive case-study type of inquiry. These interviews, though fewer in number, foster the kind of open-ended, discursive interaction that is likely to uncover important findings and relationships. The looser interview structure enables researchers to get cross-fixes on key content areas, and the in-depth content analysis reveals internal consistency (or the lack of it) in the findings. Results are high on marketing significance if not on statistical significance.

By way of countering the knee-jerk insistence on numbers in contemporary business thinking, it might be noted that small-research sample sizes are routinely and successfully used in many scientific disciplines, from the comparatively softer, such as psychology, to so-called harder areas of study, such as medicine and pharmacology.

Notwithstanding countless arguments to the contrary, small-scale, or unstructured, and large-scale, or structured, research need not be viewed as competitive alternatives. Each has a legitimate place in the decision cycle. For example, a typical sce-

nario calls for penetrating investigation early-on, to sort out basic dynamics, and this need often is better served by in-depth analytic inquiry than by quantitative descriptive findings. The approach is cheaper, too: Working with small samples and with concepts rather than executions, a company can make its mistakes inexpensively, discarding poor ideas after one or a few comparatively small research steps rather than after large, one-fell-swoop commitments of research resources. Beyond that, small scale developmental work, properly conducted, provides a better road map to the marketing considerations to be addressed in later, larger-scale evaluative testing.

The point is that strategy development objectives call for different criteria and procedures than do evaluation or test objectives. The need for large-scale research in the latter instance, geared to the identification or quantification of fine points of difference, is not in question.

Further underscoring the idea that sample size is not an either-or proposition is the appropriate use of mid-ground numbers for certain types of research objectives that have both qualitative and soft quantitative components. In such instances, raising the sample from the classic basic 30 to, say, 50, 75 or 100, can provide an incremental level of comfort, albeit a proportionally decreasing one, without incurring too much additional expense.

As with other aspects of methodology—respondent selection criteria, type of interview, stimuli to be used, analytic techniques and so forth—sample size should not be determined a priori, but rather on the basis of how the particular decision objective for the research can be served most efficiently.

The decision should be based on the quality and usability of the results in relation to the cost. ■

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