Myths and misconceptions about elections surveys

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Marketing practitioners ought not be surprised that a partisan exercise like the national elections generated rancor and bitterness. Campaign costs are staggering, the egos involved are monumental, and the stakes are winner-take-all.

Less expected, and more puzzling to the professional marketer, is the carping and censoriousness directed at what must surely be a campaign side-issue: the surveys of voter preference.

Not the least of surprises is the fact that denunciations came not just from candidates and their party mates, but from columnists and commentators with every reason to be more detached and objective, and whose fury was aimed at professional survey researchers who tracked and reported on the rise and fall of candidate standings over the course of the campaign.

The critical sentiments are reflected in columnist Neal Cruz’s sweeping judgment: “Don’t believe the surveys and exit polls. They have been wrong before and can be wrong again.” (Cruz, 2004). Another columnist, Dean de la Paz, is even more denunciatory. “Never have polling and trending ... had such an influential effect on our freedoms ... short listed our choices ... inflicted serious virtual violence upon our right of suffrage” (De la Paz, 2004). Cruz had actually argued that publication of survey results should be banned — an odd prescription if they were to be ignored anyway — but he backtracked upon learning that the Supreme Court had already ruled that such a prohibition would violate freedom of speech.

The date of the High Court’s ruling — May 5, 2001 — attests that concern over election surveys goes back a few years. Economist Solita Monsod notes that exit polls were first tested in this country in 1992, in the mayoralty races in Manila, Quezon City and Makati, with the blessings of then Commission on Elections chairman (and her husband) Christian Monsod. “Knowing that [exit polls] were commonly used in developing countries, and knowing the counting problem in the Philippines, he felt that exit polls would provide an independent, scientific check on election results. Subsequent Comelec leaderships seemed to have felt threatened by exit polls and tried to prohibit their use. The Supreme Court, thankfully, reversed the Comelec” (Monsod, 2004).

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Dr. Romulo Virola, secretary general of the National Statistical Coordination Board, explains that the attempt to ban exit polls and prohibit publication of survey results 15 days before a national election was justified under the Fair Elections Practices Act, on the premise — struck down by the High Court — that poll results influence the voters and detract from the discussion of issues. (Virola, 2004)

That is to say, the pernicious feature of election surveys is that they foster a bandwagon effect, instead of leaving voters to think for themselves. And if surveys can be bent to such an ignoble purpose, then it follows that the survey organizations and its employees can be manipulated or corrupted. De la Paz refers to “deviously manufactured” polling and trending, and notes that pollsters are commercial entities “obviously raking it in.”

De la Paz’s most withering scorn is reserved for the small samples that pollsters use to measure voter sentiments. The surveys reported by Social Weather Stations and Pulse Asia had sample sizes ranging from 1,200 to 4,800. Even the largest of these constitute only 0.01 percent of the total number of voters (43 million). “With a self-imposed margin of 1.4 percent on the survey universe of 4,800, the margin of error involves just 67 people at the most. There are jeepneys with more passengers on the roof than that.”

These, are then the indictments — one might call them the enduring myths and misconceptions — of election surveys: 1) the number of people surveyed is too small for results to be credible; 2) the survey organizations and their employees are in it for the money, and are therefore patently corruptible; and 3) survey results create a bandwagon effect inimical to democracy.

Why should marketers find these criticisms not simply hyperbolic but delusional and disturbing? Because any brand manager worth his salt accepts the vital necessity of marketing research in the course of his job, and because the survey methods, principles and sample sizes used routinely in marketing research are fundamentally the same as those used in political opinion polling.

We want to know how our brand is doing versus its rivals? Or what people like or dislike about our packaging? Or why the product sells well in Luzon but trails in Vis-Min? Or how to position a variant so it appeals to women or the youth? If one replaces brands with candidate names, these and other standard marketing questions are exactly what concern politicians and their handlers. Yet no newspaper columnist denounces marketers for using research to seek the answers, or proposes that marketing research be banned by law.

How worried are professional marketers about the aforementioned issues of sample size, research corruptibility and misuse of results? The answer is, not particularly. A marketer knows that the bigger the sample, the more he has to pay for it. Therefore, he opts for the smallest size that satisfies his information objectives and gives him an acceptable margin of error.

He also has to be choosy, and shy away from research firms with dubious credentials, and rely only on reputable outfits, which allow no hanky-panky in the gathering of data and the reporting of results. The marketer, likewise, takes precautions so that his research plans are not leaked prematurely and in sufficient detail as to allow the competition to confound the results.

However, how does a marketing professional respond to clients and colleagues who articulate these myths and misconceptions? Let’s take them one by one.

**Determination of the entire population**

Can you tell what an entire population (say, 40 million voters) thinks by interviewing a small sample (say, 1,800 respondents)? Yes, you can, and everyday experience abounds with examples of the use of small samples to make judgments about the whole. For the layman, a simple example may go like this:

Imagine you’re cooking soup for a family of four. You put in the ingredients, mix well, bring to a boil. How much soup should you taste in order to tell if it tastes right? A teaspoon will suffice. Now imagine you’re cooking soup for a party of 40. Again, you put in the ingredients, mix, boil. Of course you need a larger pot, and 10 times as much broth, and onions, and salt and pepper. Do you now need to consume a whole bowl to tell if the soup tastes good? No, one teaspoon still suffices.

The argument is counter-intuitive, but it really is feasible to generalize from a sample to the whole, and the sample need not be a large chunk. A teaspoon from a two-gallon soup kettle comes to about one in 1,700. A sample of 1,800 respondents from a voter population of 40 million is about one in 22,000. An even smaller fraction is used by engineers in an oil storage terminal, who take three one-liter samples from a 15,000 barrel tank, one each from top, middle and bottom sections — the equivalent of one in 600,000. They do this after homogenizing the tank contents by running a propeller mixer inside the tank for several hours, because fuel is laminar, and flows and settles in layers (Reyes, 2004).

How large, then, should a sample be? Mercy Abad of TNS Trends, the research agency that conducts fieldwork for both Pulse Asia and Social Weather Stations, explains:

“The size of the sample depends on survey objectives, e.g., what is at stake and what is the desired analytical framework. Like taking a photograph. If you just want to find out if it is a woman or a man, a snappy would do (fewer pixels, just an idea of the beast = small sample size). A clearer picture would demand more pixels for better resolution, so a bigger base (Abad, 2004).”
How then does one determine the actual size of a desired sample? Here the discussion has to get a bit more technical. As stated above, the professional marketer opts for the smallest sample that satisfies his information needs, and gives an acceptable margin of error, or difference between a computed or measured value and the “true” or theoretically correct value, usually expressed as plus or minus so many percentage points.

A survey’s margin of error is related to sample size, and the mathematical formula relating margin of error to sample size is readily available in textbooks on business statistics or marketing research (Roberto, 1996). The formula is:

\[ n = \frac{Z^2 \left[ p(1-p) \right]}{\text{MOE}^2} \]

where \( n \) = sample size;
\([p(1-p)]\) = data variability of the population. The most conservative assumption to make about data variability is maximum variability. Minimum (or zero) variability means that everyone in the population is the same as everyone else, so the sample size needed to generalize to the entire population is 1. The quantity \([p(1-p)]\) is maximized when \( p = 0.5 \).

\( Z \) = the normal distribution table equivalent of a given confidence level. If you want a 95 percent confidence level, i.e., you are 95 percent confident that the population mean falls within a specified interval, \( Z = 1.96 \); for a 99 percent confidence level, \( Z = 2.58 \).

MOE = the error in the estimation process. The research user decides on the maximum error to accept — ± 10 percent for some studies, ± 3 percent for others with bigger budgets. The smaller the desired margin of error, the bigger the sample you will need.

If you plug in the numbers, say, \( Z = 2.58 \) (for a 99 percent confidence level), \( p = 0.50 \), and MOE = ± 3 percent, you get a sample size \( n = 1,849 \). (The reader can verify that using less stringent specifications leads to smaller samples and, therefore, lower costs. Dr. Roberto notes that the marketing research industry’s favorite sample size is \( n = 100 \).)

The key point about this formula is that population size does not figure in sample size consideration. Clients who specify that the number of respondents surveyed should constitute at least five percent (or some such figure) of the population mean well, but speak out of ignorance. Ditto newspaper columnists who regard findings from any small sample as dubious and dismissible.

Why, then, do some surveys cover a larger sample than others? The answer goes back to Mrs. Abad’s photograph analogy. The sample is bigger when the survey needs to obtain a reliable reading of voter preference, not just at national, but regional levels. “Information at the regional level is particularly vital in a very tightly contested race, which is the case not only for the presidential candidates, but for the senatorial candidates as well” (Tabunda, 2004).

Dr. Tabunda adds, however, that while increasing sample size decreases sampling error — which is what MOE represents — non-sampling error, which includes interviewer effect, non-response, and processing error, tends to increase with sample size. (In practice, what stops marketers from insisting on large samples is not the fear of non-sampling error, but the impact on the budget.)

**Corruption vs. reputation**

Are research organizations, or their field interviewers, corruptible? Obviously, yes. But in the marketing research business, a firm’s integrity is its prerequisite and sine qua non; compromise that, and no marketer will hire it again. Hence the implied criticism in de la Paz’s reference to commercialism and pollsters who are “obviously taking it in” should be stood on its head: it is precisely those pollsters who have made a successful living from decades in marketing research who are trusted enough to generate repeat business from satisfied customers. The fly-by-night outfits, those that spring into action only with each election season, are to be shunned because one isn’t sure how they keep going from year to year, and whether they keep building up their credentials, and stay abreast of the latest software and techniques.

A reputable research organization is also forthright about its methodology and other information — sample size, margin of error, exact phrasing of questions asked, geographic distribution of respondents, selection criteria. A selection process that favors or excludes one sort of respondent within the target population is suspect; this is why phoned-in responses to questions asked on television cannot represent overall voter sentiment: the method excludes viewers tuned in to a different show, and those who don’t have telephones. One way a firm protects its good name is by instituting safeguards, like random selection keys, or not telling field workers which barangay they will visit until the actual day of interview. Another protective measure is reviewing and back-checking field interviewers’ work for internal inconsistencies or questionable patterns. Anyone caught faking responses is dismissed outright.

**Trending and influence**

What about “trending”? Can survey results be used to be influence consumer choices? All the time. This is precisely what happens when a TV network or program trumpets its high ratings, or when a mouthwash manufacturer claims it is now the leading brand. Can these claims induce consumers to try out the show or switch to the market leader? Certainly. Do these claims deprive consumers of their right to choose? Not in the least.

The fact is, voters can react to survey results in different ways, and as Dr. Virola points out, the bandwagon is only one of them. Other scenarios include: a) the underdog effect, when...
voters rally to the trailing candidate (and so reject the argument of the “wasted vote”); b) the demotivating effect, when voters decide not to vote because their candidate is sure to win anyway; c) the motivating effect, when voters go to the precincts because the polls alert them to the elections; and d) the free-will effect, when voters cast their votes to prove the polls wrong. Which of these outcomes is likely to prevail, under which particular circumstances, remains a matter of conjecture.

Which brings me to my last point. As vulnerable as they are to sampling and non-sampling error, election surveys by reputable research firms provide as representative a snapshot, or series of snapshots, of voter sentiment as one can devise. It is the shame of Philippine electoral politics that survey findings are actually more believable than the election results themselves, as officially conducted and counted by the Commission on Elections. The latter have been tainted by a litany of horrors — the embarrassingly low registration of new voters, the flawed purchase of counting machines, declared illegal and disallowed by the Supreme Court; the wasted expenditure of billions of pesos in taxpayers’ money in these misadventures; the failure to provide computerized voters’ lists to all political parties; the disenfranchisement of thousands of voters whose names were missing from the precinct lists on election day; the reversion to manual counting and the consequent discrepancies between certificates of canvass and election returns.

Surely these blunders were not conducive to the honest articulation of a people’s will. Yet the outcome of the elections — flawed and bungled as they were — determines who gets to hold office for the next three or six years, regardless of what the surveys might have indicated. The rules of democracy require that this be so: it is the vote, not the survey, that determines the elected leader. But the critics who condemn surveys are barking up the wrong tree. They should train their ire—and their fire— on those who through their incompetence, or malice, or both, have left on the recent elections a lasting imprint of anomaly and doubt.

References:

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