Survey analysis in fortune magazine article

Nutrition, Fast Food

On July 5, 2018 Fortune Magazine published an article entitled " This is America's Favorite Fast Food Restaurant" and named Chick Fil A the most popular. One might ask how a single survey can determine the favorite restaurant in a large country with different tastes and regional preferences. One might also ask how the survey accounted for stand alone, regional, and national chain restaurants. The author of the article did provide a link to the survey to allow the reader to analyze and evaluate the process of identifying a favorite place to eat.

The article mentions that the data was obtained by the ACSI and involved 22, 500 people. Further evaluation of the link to the survey reveals how information was obtained, the timeframe that the survey was conducted, and the metric for determining score. Missing from the documentation is the exact size of the sample pool and the regions where these respondents live. Also missing is how the email addresses of individuals who are restaurant customers is obtained. Without this information the margin of error cannot be ascertained.

To determine the favorite each respondent was asked questions on nine specific areas but the actual questions are not revealed in either the article or the link to the survey purveyor. The question responses are then used to obtain a score between 1 to 100 but the weighting of individual questions is not revealed.

Upon study of the survey the reader is informed that 22, 522 people responded to an email survey between Jun 19, 2017 and May 29 2018. No mention is given of how many requests for a survey response were sent out

which would help determine or the demographics of the survey respondents. For instance, if the survey was sent out to 250, 000 people and only 22, 522 responded this would imply that the results are poorly represented and perhaps biased. Without knowing the geographical representation of the pool the accuracy of the survey is called into question. The email addresses are obtained from the restaurants themselves and some individuals refuse to give out their email which reduces the sample pool and introduces bias. The reader also does not know if the survey includes infrequent diners. More frequent diners at a restaurant can be assumed to have a positive attitude towards the dining facility compared to someone who avoids a particular restaurant.

Furthermore, without the sample pool size it is not possible to ascertain the margin of error in the survey or to determine if Chick Fil A is truly the best fast food restaurant.

During the survey respondents rate the accuracy of their food order, courtesy and helpfulness of staff, food quality, beverage quality, restaurant layout and cleanliness, speed of checkout, beverage variety, food variety, and website satisfaction. No mention in either the Fortune magazine article or the description of the survey mentions how responses of not applicable influence scoring. For instance, it is very conceivable that someone may go to a restaurant and never look at the web site. Furthermore, there is no mention about how long the survey takes to answer or how many respondents stop taking the survey. These factors influence the accuracy of the survey result and affect bias.

The phrasing of questions and how many questions are in each category can affect results. Without seeing the questions the reader cannot determine the accuracy of the results. Respondents are likely to either quit the survey when it is lengthy or to give incorrect answers in an effort to just be done with the survey.

Unfortunately, the article does not allow the reader to make informed decision as to the best fast food restaurant. The Fortune Magazine article falls short of giving the reader adequate information to determine the validity of the data used to determine the best fast food restaurant.