Advanced Statistics – Getting the Most Out of Your Data

Marketing research must provide complete and understandable direction for making sound decisions. The right information is vital to the success of any business, and cannot be wasted. Unfortunately, the data from most research projects remains under exploited. The most common reasons for the under utilization of information are ignorance and fear. Research suppliers and clients tend to underutilize or be unaware of the potential in the data they collect. Many studies stop at cross-tabulations, which represent just the first step in the analysis process. Others, while aware of what can be done beyond simple statistics, hesitate to step into the realm of advanced analysis for fear of being confused by the statistical babble many analysts emit. Unfortunately, conclusions based on the simple statistics routinely used in marketing research are incomplete at best, and woefully misleading at worst. For a deeper understanding of your data, you need advanced analyses that are communicated clearly and concisely. A simple example examining the importance of product attributes illustrates why a deeper look at your data can point you in the right direction instead of down an unprofitable path.

The goal of the project was to examine the satisfaction of customers using the product, as well as provide recommendations for product improvements that would increase customer satisfaction[1]. In addition to an overall evaluation of satisfaction, the company's customers rated more than 15 product and service attributes. An examination of the means and frequencies showed that this segment of customers rated their overall satisfaction relatively low on the theoretical scale compared with similar studies. Not surprisingly, each of the specific components were also rated less than optimally. An examination of the means for the specific components showed that a group of ratings all concerned with the pricing structure were evaluated least favorably. This is the point where most routine analyses stop. The researcher would note the relative dissatisfaction in price, and (mistakenly) conclude that the company should lower prices.

At The Research Spectrum, we go a step further. After becoming familiar with the simple statistics, we conducted a factor analysis of the component ratings to focus on the core issues. Four clear, understandable factors emerged centering around: Pricing, Product Reliability, Quality of Support Channels, Quality of Support Staff. To determine which of the factors had the greatest impact on overall evaluations, we used multiple regression analysis. The results from this kind of analysis can be presented pictorially as in Figure 1. The figure clearly shows that price is the least important variable for understanding satisfaction, and that product reliability was the real driving force.

The company's goal was to improve satisfaction. If the company reduces prices there may be an effect on revenue (positive or negative), but there would be little impact on satisfaction. The analysis shows that improvements in product reliability would have the greatest impact on overall satisfaction. Our recommendation was to invest in improving product reliability, and leave prices where they stand. The general message for the marketing researcher

is clear: you need to move beyond basic analyses to adequately understand your data. Stopping with simple and routine analyses not only waste your research dollar, but can lead to wrong decisions.

At The Research Spectrum, we are highly trained in both advanced analysis and in communicating results in understandable English. If you want to get the most out of the data you already have, or are preparing for upcoming research, we can help.

(Footnotes)

[1] Client confidentiality is of highest priority at The Research Spectrum. To ensure the anonymity of information important to our clients, this example represents an abstraction of our research experience and does not match any particular project or client.