



Why Use Latent Class Regression?

Many of us probably don't think of regression analysis on equal footing with things like the rotary phone, the turntable, or the typewriter. Faced with questions like "do you use a rotary phone at home?", "do you play records on a turntable?", or "did you type your last memo with a typewriter?", most of us will say "no." In fact, some of us probably can't remember the last time we used these outdated technologies. However, if the question becomes "do you still use linear regression to identify key drivers of metrics such as purchase interest or customer satisfaction?" a number of us will probably answer "yes" or "maybe." This is particularly true if you're not into statistics or up on the latest trends. Unfortunately, if you are still working with regression you may not be getting the most out of your analysis.

A REVOLUTION IN MARKET RESEARCH?

In a world energized by cell phones, i-Pods and wireless keyboards, it is clear how quickly technology is advancing. As business leaders we know it is essential to keep up, even if it means having to learn something new in the midst of other urgent demands on our time. The world of market research statistics is no different. Rapid advances in the power and speed of computers now allow us to use statistics that were once more theoretical than practical.

UPGRADE YOUR TECHNIQUES

Latent class regression is one of the most important tools in this new world of market research statistics. It takes classic linear regression, which identifies key drivers on an aggregate set of data, to a higher level. Unlike linear regression, latent class regression estimates the key drivers for each individual respondent and then aggregates these individual estimates to provide a more accurate picture of the market place.

HOW DOES LATENT CLASS WORK?

Let's take a closer look at how latent class regression is applied to key driver analysis. Latent class begins by creating a linear regression equation for all respondents. As we know, even the best linear regression does not explain everything. For

example, we may have an R-squared of 42%, which means that 58% of the variance is "unexplained." We've been taught that this is due to variables we didn't ask about in the survey. But this is not exactly the case. The reason a single linear regression does not explain everything is because different people have different drivers. One model does not fit all.

Just as today's marketers are targeting finer and finer segments through the Internet, cable, and other highly fragmented media, we have no reason to assume that a single regression equation provides the best fit for all. Latent class regression goes beyond classic linear regression by identifying multiple alternative equations that can be applied to different respondents (latent classes). Taken together, these multiple regression equations explain much more variance than a single equation ever could. To make the analysis even more precise, latent class calculates the probability that individuals match each equation. The weighted probabilities determine a regression equation for each respondent.

WHAT ELSE CAN LATENT CLASS DO?

Latent class key driver analysis not only provides a more accurate picture of your market as a whole, it identifies segments within your market based on different key drivers. Respondents can be assigned to a class (segment) that best represents their needs or preferences. These "segments" can be profiled by size, demographics, behavior, and attitudes. The result is a way of looking at the world that is more powerful than traditional attitudinal or behavioral segments, because it is grounded in real behaviors such as commitment or involvement. In this regard, latent class links to your business goals, whether they be increasing sales or increasing loyalty.

MAKE IT WORK FOR YOU

Once you see the power of latent class you'll find it easy to upgrade your old techniques and approaches. Make sure that your next market research project takes advantage of this wonderful new tool that will help your company stay on the cutting edge.

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