

Marketing News

Structural equation modeling helps predict loyalty

By Al Fitzgerald

In a climate where maximizing scarce budgets is top of mind, marketers are striving more than ever to make their research dollars count. Conducting satisfaction research has always been a logical approach for companies, as implementing the findings is one of the key ways to continually improve a product or service while growing a consistent customer base. Maximizing this type of research by incorporating structural equation modeling (SEM) offers critical dividends. First, SEM clearly identifies satisfaction drivers by uncovering how overall satisfaction with a company's offerings and loyalty to the brand relate to each specific area affecting these key issues. Secondly, and perhaps most importantly, SEM provides easy-to-understand graphical output designed to communicate to an executive level of management. By bringing lucid and practical data to the table, researchers aid company decision-makers in bringing meaningful products to the market.

Typical satisfaction methods

In a typical customer satisfaction survey, respondents rate several attributes of a product or service on a one-dimensional scale (for example, "product quality" rated on a 1 to 10 scale). This approach can provide useful insight, but it is not without limitations. These one-dimensional ranking models do not consider the combined effect of all the attributes, nor do they incorporate overall loyalty or satisfaction into the analysis. What's more, this approach utilizes stated importance rather than derived importance. Since customers tend to think everything is important when asked about a product or service, researchers run the risk of generating skewed data when counting on customers to tell them what is important. On the other hand, deriving which attributes actually cause satisfaction to rise or fall allows marketers to understand what is truly important to customers.

Regression analysis is another common modeling approach that offers significant improvement over the ranking model. Results from this method show how changes in attributes affect the overall loyalty or satisfaction score. A key benefit is that the model allows marketers to predict overall loyalty or satisfaction using the ratings for the individual attributes. Despite these

improvements, regression poses final reporting dangers. One possible data issue associated with this model is that the model can lead to the incorrect conclusion that as satisfaction with the individual attribute increases, overall satisfaction decreases. This is a very difficult point to sell to management when presenting research results, and often results in distrust of the findings. This happens because of the interactions between issues that drive satisfaction and loyalty.

Clear reporting with SEM

SEM offers substantial benefits over typical satisfaction modeling techniques by providing a single method of all included variables and easy-to-interpret final reporting. It is a statistical modeling technique that examines the relationships among several variables simultaneously. As an added benefit, the method includes the ability to handle intangible concepts in the analysis. These concepts include intelligence, loyalty or satisfaction. SEM uses path diagrams to graphically depict the relationships of each of the satisfaction variables. This makes it very easy to explain the results to clients and management who may not be statistically savvy. If one of the objectives of a study is to determine loyalty to a product, SEM allows the concept of loyalty to be understood in terms of key influencing factors (such as product innovation, partnership and support). SEM doesn't stop there. It allows a multitiered modeling approach so that the factors that influence loyalty can be examined in further detail. Since each of the percentages for these issues and sub-issues adds up to 100%, the data is very helpful in understanding where to focus resources to improve performance.

When it comes to conducting customer research, marketers agree that understanding what truly drives brand loyalty and customer satisfaction is essential to maintaining a strong customer base. Further, marketers know that final reporting is one of the most



crucial phases of any study, as it makes the difference between dollars well spent and research budgets wasted. Designing a probing questionnaire and finding qualified respondents may have gone without a hitch. But if the data is not presented in a way that is easily understandable, those within a company with the power to make decisions cannot act. By using structural equation modeling, researchers are able to identify the attributes that predict overall satisfaction or loyalty. And by presenting results in a way that allows action, marketers are in a position to provide products and services addressing the specific needs of their customers. ■

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