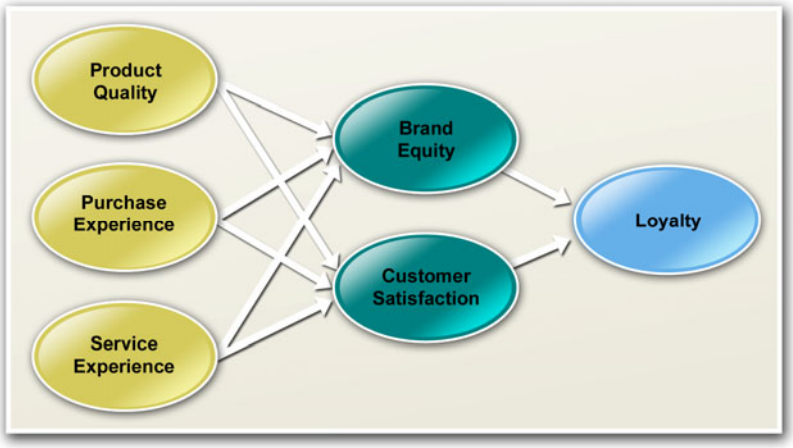
SEM Structural Equation Modeling

Get the results you need for brand image and satisfaction studies with the use of Structural Equation Modeling



One of the most difficult tasks when working on a satisfaction or brand study is to clearly summarize results that allows you to generate a large number of interrelated measures. This reliable information will help you to make better marketing and product development decisions.

In a typical satisfaction or brand image study, you want to know how consumers rate the performance or imagery of products/services on many different dimensions. Structural Equation Modeling (SEM) is an approach Morpace uses to uncover these interrelated measures.

SEM is sometimes referred to as *causal modeling.* It is used to test the reasonableness of alternative hypotheses regarding the causal relationships between various measures, and their relationships to underlying dimensions or latent variables.

Morpace uses SEM to assess how the performance of various dimensions influence one another, and how they ultimately influence a customer's overall satisfaction and loyalty. SEM is also a proven tool for modeling brand image and brand equity because it measures the relative impact of factors such as awareness, image and engagement on overall brand consideration.

A key output from a SEM analysis is the indexing of the relative impact of various measures on important outcome variables, such as overall satisfaction or brand consideration. A pictorial presentation is prepared to show the relationship strength between variables in the model, a visual that can greatly facilitate comprehension and understanding of survey results.

The complex relationship of multiple sets of independent and dependent variables can be assessed by using different statistical approaches to SEM. Depending on the objective of the study, there are two statistical approaches Morpace uses.

In a covariance-based SEM approach, one of the main objectives is to test one or more hypotheses about the structural relationship of the variables and potential latent factors. This approach generally uses Maximum Likelihood estimation in determining the coefficients in the model.

In a Partial Least Squares (PLS) approach, one of the main objectives is to use the model for prediction. Instead of using Maximum Likelihood estimation in determining the coefficients in the model, PLS generally uses Ordinary Least Squares (OLS). This provides predictive capabilities for outcome measures.

Please contact Morpace at **248.737.5300** or **information@morpace.com** when structural equation modeling seems right for your next project.