

Attitudinal consumer segmentation: A latent class clustering approach

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Unlike other clustering methods in which an ad-hoc distance measure is usually used for classification, the Latent Class (LC) cluster model uses model-based posterior membership probabilities estimated by maximum likelihood method to classify entities into clusters. It does not rely on many assumptions required by traditional modeling that often being violated in reality and it has recently been extended to include a variety of data types including continuous, ordinal and nominal variables in a single model (Magidson and Vermunt, 2002).

A case study was conducted in which 4327 consumers from 4 countries (China, Indonesia, Japan and Brazil) responded to statements regarding attitudes towards two types of manufactured consumer products. A Latent Class (LC) cluster model was used to segment these consumers into distinct clusters that group together consumers who share similar views. To better understand each segment, external variables such as actual product choice and demographics were also incorporated as inactive covariates and assessed simultaneously.

The analysis suggests that freeing up the order restriction for n-point category scale in this case facilitates the segmentation process. With the guidance of BIC (Bayesian Information Criterion) statistic, the optimal number of distinct consumer segments can be clearly identified for each country. Individual membership and the approximate size of each segment can also be derived from the analysis. The results revealed that not only do unique natural consumer segments exist within each country, but that common segments with similar attitude profile across different countries can be easily recognized as well. The links between attitude-based consumer segments and their actual product usage and demographic characteristics were also established. While the association between product choice and attitude seems evident for most segments, the impact of demographics, particularly the socio-economics, is more complicated and varies greatly from country to country.

References

- Magidson J. and Vermunt J. K. 2002. Latent Class Models. In: Market Research Book. Direct Marketing Association.