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Objectives

The objective of this study was to characterize instant coffee packaging under three different comparative evaluation procedures: ranking, rating and "rank-rating". "Rank-rating" requires a positioning of the products in front of a linear graduated scale.

Materials and methods

Products

Twelve instant coffee packaging from various French trademarks were selected among marketed products for the diversity of their visio-tactile characteristics.



Descriptive analysis

Six assessors evaluated twice the 12 packaging on 9 previously chosen descriptors under the three procedures. Order of the procedures were balanced between assessors.

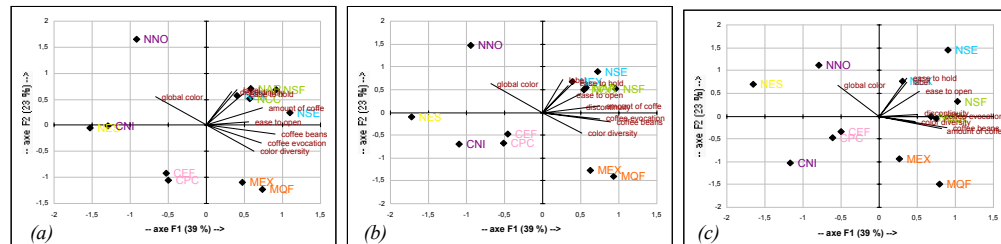
The 9 descriptors were: "global color", "color diversity", "amount of coffee", "discontinuity of the shape", "ease to hold", "ease to open", "legibility of the label", "coffee evocation" and "visibility of the coffee beans".

Preference testing

141 consumers evaluated the 12 packaging once under one of the three methodologies (i.e. 47 consumer per protocol).

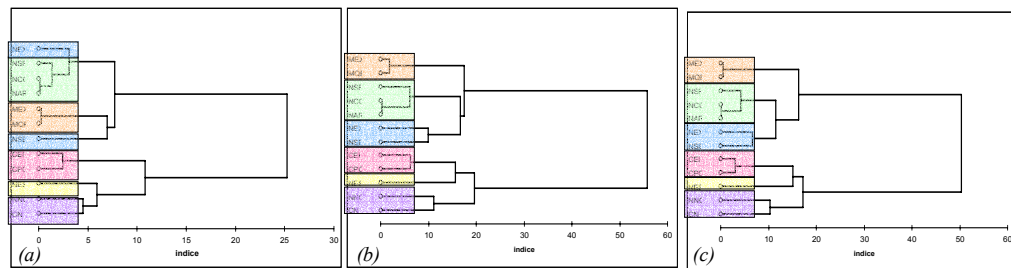
Results

Descriptive analysis



PCA - vision of the 6 assessors with the three modalities: (a) ranking, (b) rating and (c) "rank-rating".

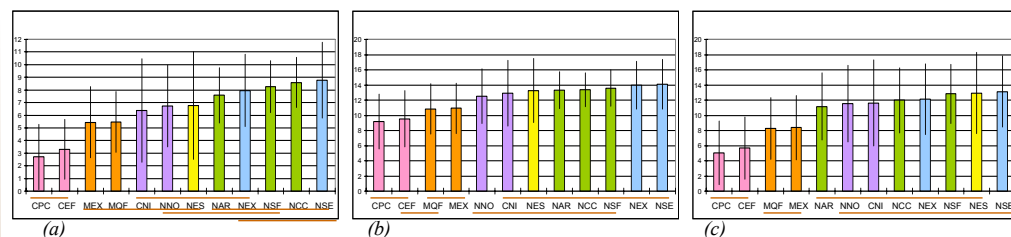
Products positioning are quite similar on the 2 first axes of the three PCA. But only about 60 % of the information is represented.



Cluster analysis for the three modalities: (a) ranking, (b) rating and (c) "rank-rating".

Rating and "rank-rating" give the same clusters and the configuration for ranking is very close but ranking seems to lead to a slightly better discrimination.

Preferences



Mean scores and their deviations for the three modalities: (a) ranking, (b) rating and (c) "rank-rating".

The order of products is globally the same whichever protocol is used except for NES. The amplitude is higher with rating and ranking discriminate more products.

Conclusions

• Visio tactile description and preference testing lead to similar results whichever comparative protocol used (ranking, rating and "rank-rating"). However ranking increase the discrimination among products.