

Sensory Based Product Optimisation:

Making sense of your brands

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SPA
Future
Thinking



Consumer preferences can make or break a brand, and understanding how your product performs relative to branded and private label competitors is therefore vital.

At SPA Future Thinking, we use sensory profiling as part of our approach to product optimisation and competitor benchmarking. Quantified descriptive analysis (QDA) of your product is a valuable tool to identify how it differs from its competitors and how it can be improved to maximise consumer liking.

What is Sensory Preference Mapping?

Sensory Preference Mapping is a powerful technique which combines two different sources of data.

Consumers are good at telling us what they like or dislike, but often can't tell us why in any detail. So, in parallel to consumer data, we use expert sensory tasters to provide a highly detailed and objective read on all aspects of a product's physical characteristics, ranging across its appearance, smell, taste, texture and aftertaste.

By combining these two sources of data, we are able to generate a deeper understanding of the drivers of preference across the market – what exactly is it about your product (or your competitor's) that makes consumers prefer one over the other? We can then go further and tell you what you need to do to maintain market leadership in terms of product superiority and drive the success of your brand.

Expert sensory tasters provide a highly detailed and objective read on all aspects of a product's physical characteristics.

Our typical approach combines sensory profiling with central location test (CLT) consumer testing aimed at:

1. Understanding the competitor context, providing a full 360 degree descriptive mapping of your product and its competitors – generating a map of the sensory space covered by the category.
2. Consumer testing to screen your product against the entire competitive set, and map out preferences within that, identifying segments of preference.





Sensory

Sensory panellists are selected and screened on the basis of their sensory acuity and ability to describe and discriminate on:

- Appearance
- Texture
- Aroma
- Aftertaste
- Flavour

All our recruited panellists complete a training period, on general sensory analysis principles and method (e.g. five senses, perception, tasting protocols, use of software and equipment), before joining our profiling panel.



Our approach builds a Quantitative Descriptive Analysis of the product set across all sensory modalities. Each product is profiled in duplicate, and the panel is checked for internal consistency, both across panellists and within each panellist.

Using Principal Component Analysis we map all the sensory attributes, to provide a detailed picture of the degree of difference between each product and the nature of those differences, at a level of detail far greater than we could expect ordinary consumers to provide.

Consumer

In tandem to our sensory testing, we conduct a comprehensive blind evaluation of the product set with consumers, typically in central locations, using hedonic and diagnostic measures.

These include assessment of the product overall, and on a range of attributes including overall liking, purchase intent, spontaneous likes and dislikes. Plus ratings on appearance, colour, aroma, flavour, consistency, after taste and any product specific items relevant to the product category (e.g. number of chocolate chips).

The outputs from the consumer evaluation include:

Individual Ratings – detailing individual ratings for your product versus competitors – including indications of significant differences

Penalty and Peak Profile – highlighting opportunities for each product and prioritisation for product improvement

Product Summaries – providing comprehensive easy to read summaries indicating key scores, reasons for preference and recommendations for product improvements and developments.



Linking consumer to sensory

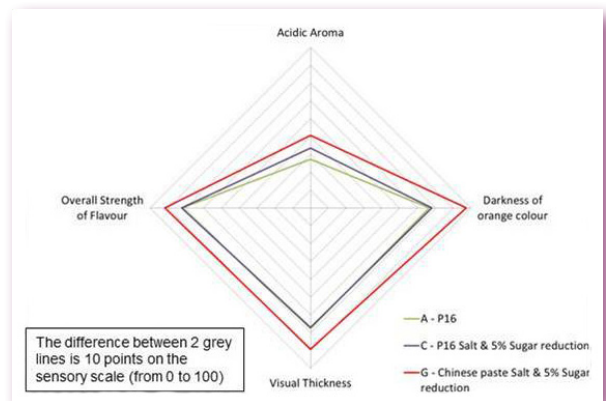
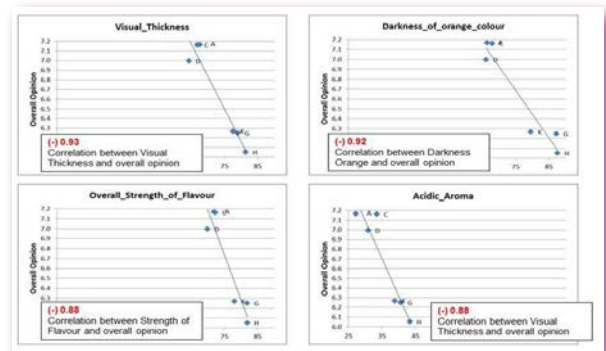


The last stage of Preference Mapping is to model the liking scores given by the consumers with the sensory descriptors generated by the QDA profiling. To be considered in the model, a descriptor has:

1. To be discriminating. Showing significant differences within the product set
2. To be as correlated as possible to the overall liking
3. To have a range as large as possible (the range is the difference in the highest and lowest score given within the product set)

Our model will:

- Give clear directions for improvement for the products which need to be improved
- Define the optimum product described via the ideal sensory profile
- Allow us to estimate the overall opinion for the optimum product and for the products not placed in the consumer test (and which are included within the sensory space of reference)





Blind tasting

To get a pure read on the product characteristics, it is essential that the brand has no influence on the assessment of the properties of the products themselves.

The most robust assessment of each product will be when it is unbranded. With branding in place, brand can become the main focus of the assessment (i.e. particular associations conveyed by brand and advertising can distort actual perceptions).

All products tested by panellists and consumers are therefore tested blind to allow the product attributes to be assessed without any reference to expectation derived from branding.

In tandem to our sensory testing, we conduct a comprehensive blind evaluation of the product set with consumers, typically in central locations, using hedonic and diagnostic measures.

Central location testing

Controlled environments ensure all products are prepared and served to a standardised protocol, in exactly the same way, eliminating any extraneous differences. This also ensures that the products will be served to exactly the same protocol in the consumer and sensory evaluation stages of the research.

As we can expect the differences to be relatively subtle, this approach will give the most sensitive read on the products. It will also make the test easier to manage and control, particularly in areas such as product storage and ensuring optimal and consistent trial temperature.



Complete design

The most powerful modelling can be achieved when consumers have evaluated all the selected products in the set, which then allows us to identify sub-groups of respondents within the sample who share similar patterns of liking or disliking across the product set. Optimisation guidance can then be targeted more precisely.

Consumer pre-recruitment

Depending upon the number of products being tested, consumers may need to attend the CLTs for more than one session, so are normally pre-recruited. We recommend that each person tests no more than 5-6 products in a single session.



Benefits of our approach



Our approach offers a number of additional key benefits including:

Flexibility

Timings of the research can be spread. For example we can test all products in a programme at the same time or at different periods in the year e.g. a different flavour each month.

Sustainability

Once the model is developed, it is possible to predict liking scores for new prototypes) using only their sensory profiles, avoiding the need for further consumer testing. For example, if you go on to develop an improved product using the optimised guidance from the model, we can then re-profile it, use that sensory data as an input to the model, and predict how well consumers will like it.

Comparability across tests

We are able to carry out tests across the year for new variants, revised formulations and therefore build up a database for products and their competitors.

Additional insight

We have the ability to ask additional questions at end of process from evaluating the importance of claims, the potential of new flavours through to the quick evaluation of a new idea.

To learn more about how this technique can work for your brand, please contact Richard Mills, Head of FMCG at SPA Future Thinking.

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Richard heads up the FMCG business at SPA Future Thinking, and has 20 years' experience focussing on NPD research.

Richard's expertise in NPD has been gained both agency and client side at Mars, and he has extensive international experience having worked in over 30 countries, in all 5 continents.



About the company



SPA Future Thinking is dedicated to providing innovation, intelligence and inspiration through research that identifies new opportunities, evaluates your markets and drives business growth.

With combined industry experience of over 40 years and offices in the UK and Europe, SPA Future Thinking provide genuine research expertise and understanding across a wide range of industry sectors. Our staff have a mix of agency and client side experience, providing you with a better understanding of your business needs; we have the confidence to deliver not just findings but business recommendations that deliver success.

Our knowledge of fmcg, retail and shopper research extends from new product development, pack design and testing, and volumetric forecasting for product launches and category extensions, to understanding all aspects of the shopper journey.

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