Development of a Standardized Framework to Validate Descriptive Analysis Partners: A Case Study in Latin America

Viviana Jose[1], Huizi Yu[2], Alice Ping[1]

1- Mead Johnson Nutrition; 2 - MMR Research Worldwide

BACKGROUND & OBJECTIVE

Global companies increasingly rely on external agencies to deliver Descriptive Analysis (DA) across regions. While DA methodologies are well established, there is limited guidance on how to systematically validate the capability of third-party sensory agencies to ensure consistency, rigor, and comparability with internal or global standards. This challenge is particularly important for categories where products cannot be easily transported across regions due to regulatory constraints, such as dairy-based products. In these contexts, sensory data must be generated locally, increasing the need to validate strong external partnerships to ensure global comparability.

This research aims to develop a practical and scalable framework for validating DA partners, ultimately enabling consistent implementation of sensory methodologies across regions and the identification of critical capability drivers for building sustainable global sensory programs.

WHAT IS IT?

A structured, multidimensional validation framework was developed to assess sensory agency performance across two key dimensions: (1) ways of working, including communication, organization, flexibility, fieldwork execution, timing, product sourcing, and pricing; and (2) sensory capability, including methodological rigor, live session review, sensory lexicon and protocol quality, data management practices, and panel performance.

Ways of Working

Timing	A: Timely delivery of key project milestones and deliverables
Product Sourcing	B: Efficient product sourcing and shipment management
Fieldwork Quality	C: Controlled testing environment D: Appropriate sample handling and lab execution
Project Management • Communication • Organization • Flexibility • Execution	E: Clarity & responsiveness F: Accurate documentation G: Alignment with project requirements H: Efficient project execution and & issue resolution
Cost	I: Cost competitiveness relative to the quality delivered J: Transparent pricing and scope definition

Sensory Capability

Overall Methodology Rigor	K: Panel session planning and management L: Appropriate Scaling technique
Live Session Review	M: Panel alignment & consensus N: Smooth session execution
Lexicon & Evaluation Protocol	O: Robust evaluation protocol P: Comprehensive, non-confounded lexicon Q: Precise definitions with relevant references
Data Management	R: Complete raw data delivery & accurate data processing S: Clear and effective data visualization T: Accurate results interpretation U: Summarize key findings with actionable insights
Panel Performance	V: Discrimination - Ability to differentiate products W: Agreement - Consistency across panelists X: Repeatability - Consistency across repeated measures

STUDY DESIGN

A standardized agency validation framework was developed and applied in Latin America to assess the capability of external partners to conduct Descriptive Analysis (DA). Three sensory agencies independently evaluated six nutritional beverages using DA in duplicate. Product preparation and serving procedures were standardized across agencies to support result comparability. To reflect normal working practices, each agency independently developed its own sensory lexicon, protocol, panel schedule, and scoring approach.

PRE-FIELDWORK

Standardization:

- Product preparation & serving protocols
- Study timelines
- Deliverable requirements
- Development of the validation metrics

FIELDWORK

Live Observation:

- Feedback on draft lexicon and evaluation protocol
- Live panel session observation
- Facility and sample handling procedures review

POST-FIELDWORK

Capability Assessment:

- Data analysis and validation metrics review
- Agency strengths and development opportunities assessment
- Partner selection

SENSORY AGENCY CAPABILITY PROFILES



Agency 1 shows a strong overall performance with competitive cost and strengths in data management

Agency II demonstrates stronger project management despite facility & cost constraints. They stand out in lexicon and protocol development and drive efficient panel consensus

Agency III shows clear weaknesses in organization, execution, cost transparency, and panel management efficiency, rendering them unsuitable for future collaboration

1 - Below Expectations; 2 – Acceptable; 2.5/3 - Good

CONCLUSIONS

- Standardizing product preparation and serving procedures while allowing agencies to independently develop lexicons, protocols, and scaling approaches created a rigorous validation environment. This design ensured comparable sensory data while enabling objective assessment of each agency's sensory capability.
- Application of the validation framework revealed distinct strengths and development opportunities across agencies. All agencies demonstrated acceptable panel performance and product sourcing capability, with greater differentiation is observed in panel leading, data management, and insights generation.
- The framework provides a practical and scalable approach for evaluating DA partners, enabling informed partner selection and supporting the establishment of sustainable regional sensory capabilities.
- Following agency validation, further capability alignment may include regional lexicon harmonization and standardized panel training practices to build consistency across testing locations.

KEY TAKEAWAYS

- On-site observation of product preparation and live panel training is essential for effective partner validation.
- There is no universally "best" agency; the validation criteria should be prioritized based on business objectives, existing in-house capabilities, and the intended partnership model.
- Partner selection should consider not only performance on an single study, but also the agency's potential to support a sustainable long-term sensory program.