So, You Say A CLT Lacks Context?

Introducing context into CLTs for more HUT-like research findings in the fragrance category.

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Background & Objectives

Reckitt sought to determine if results of a central location test (CLT) could reliably predict product performance in a home-use test (HUT) environment. Curion partnered with Reckitt to develop a research-on-research plan to evaluate this hypothesis in the context of aerosol air freshener/sanitizer products, focusing on consumers' Return to Room (Fragrance Lastingness) moment of truth.

The Objectives of The ROR Plan Were To:

- Understand the relationship between contextualized CLT and standard HUT consumer data.
- Determine if the CLT Fragrance Lastingness evaluation is a reliable predictor of the same moment of truth evaluated in a typical HUT.
- Understand performance of top aerosol air freshener/sanitizer prototypes within Marine & Floral olfactive families, with clear alignment on results and recommendations between first-position CLT and monadic HUT results.

Background & Objectives

Contextualized Central Location Test

~150 consumers participated in contextualized CLTs at Curion's facility, assessing aerosol air fresheners in 640 ft lifestyle booths designed for natural aroma kinetics. Evaluations occurred at two critical points: Initial Spray and 60-Minute Return (Fragrance Lastingness). Products were sprayed into booths to mimic in-home use, then evaluated for initial scent intensity. For Lastingness, consumers returned to the booth, smelled through a fragrance hatch for 5 seconds, and recorded responses via tablet questionnaires.

Standard Monadic Home Use Test (HUT)

~200 consumers (~50 per product) tested assigned aerosol air fresheners in their homes. After an initial online questionnaire, participants used the product in targeted home areas, timed usage, and repeated evaluations ~3–4 hours later to measure Lastingness. Use continued as normal for two additional days, with a final online questionnaire completed at the end of Day 3. This method captured realistic usage patterns and provided direct in-home performance feedback.

Enhancing CLT Accuracy Through Contextual Cues From HUTs

While CLT and HUT methodologies and contexts were not identical, a few significant interactions were identified between results from each when using a predictive model. This suggests, in the context of this specific product category, that a well-designed & contextual CLT can closely approximate the experience of using a product at home.

- Researchers must choose between Central Location Tests (CLTs) & Home Use Tests (HUTs) based on evaluation context.
- HUTs provide real-life insights but can be limited by prototypes, budgets, & packaging constraints.
- Reckitt and Curion created a modified CLT using HUT cues to improve fragrance longevity evaluation, comparing results to standard HUTs at Curion's NJ facility.

Comparative Analysis Of Results From Two Olfactive Families: Marine & Floral

- **Marine:** As expected, the KPI results were similar between the first-position contextualized CLT data and the monadic HUT. However, considering all results from the sequential monadic design of the full CLT allows for greater differentiation between the products.
- **Floral:** For KPI measures, the results from the contextualized CLT show greater differentiation than those from the monadic hut, even when considering only the first-position CLT data.
- Base sizes of **n=150** for first-position contextualized CLT and monadic HUT are underpowered for targeting superiority at 95% confidence; further increasing base size would likely allow for even greater differentiation between the products.

Key Considerations

	Contextualized CLT (Initial + 60 min. Fragrance Lastingness)	Standard HUT (Initial + 3-4 h. Lastingness + 3 day)
Key Insights	**Highly Focused Feedback On Specific Attributes Of Scent** • Controlled environment allows consumers to focus solely on product fragrance • Can better understand "apples-to-apples" comparison of fragrance strength, descriptors, perceived benefits, etc.	**Broad Understanding of Product Performance In Real-world Scenarios** • Where & how consumers use • Performance in large/shared spaces • Efficacy against common household malodors
Advantage	• Less time • Less product needed • Greater sensitivity • Cost-effective	• Not limited to any specific environment/ malodors • Greater reach to understand consumer perception nationally • Allows consumers to assess the product as they would if purchased on the shelf
Disadvantage	• Limited to small spaces, "sterile" environment • Limited regional demographics based on facility availability • Not representative of how consumers would typically use the product	• Longer time • More product needed • Less sensitive • Additional cost
When To Use	• Fragrance screening	• Pre-launch validation

Different Approaches, Shared Understanding

Overall, few significant interactions were identified between results from the contextualized CLT and the standard HUT, meaning results from each can be considered similar. As a result, the contextualized Initial & Fragrance Lastingness evaluations in the CLT can be regarded as comparable to the same moments of truth during the HUT product experience.

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