



Revolutionizing Skincare Concept Testing with GenAI-based Virtual Personas

CLIENT

A leading multinational
skincare brand

INDUSTRY

CPG



OBJECTIVE

In the competitive beauty industry, the client, a leading skincare brand, faced delays and high costs with traditional concept testing methods and also struggled with panel diversity. To address these issues, the brand reached out to C5i to explore if we could leverage the power of AI to conduct the Concept Test without going to the panel providers and spending on sample data. The client wanted an automated AI-based solution to conduct the early innovation concept tests with high speed and efficiency.

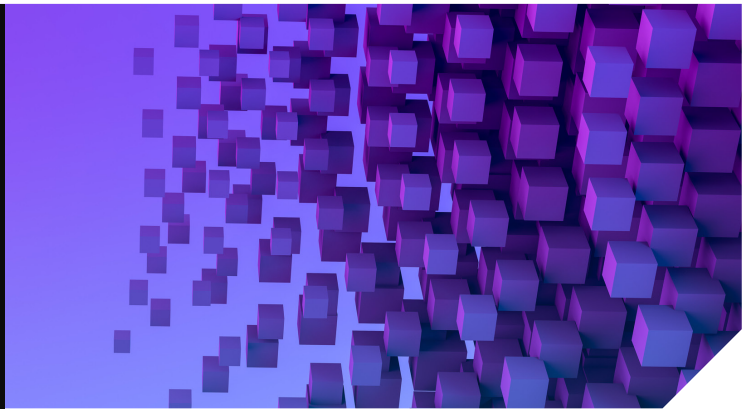


METHODOLOGY

The skincare brand finalized categories for testing, including sunscreen, moisturizer, luxury, and hydration, and determined sample sizes, audience groups, demographics, and key metrics.

Leveraging past concept test results, C5i developed robust **Virtual Personas** – representing well-defined target audience groups – using Generative AI (GenAI) and **Large Language Models (LLMs)** with **Agent-based Retrieval-Augmented Generation (RAG)** systems. The personas, trained on market studies, consumer reviews, and demographic data, simulated realistic consumer reactions across diverse markets and segments. The approach aimed to accelerate the concept-to-market process, reduce research costs, and enhance feedback accuracy by generating a wide range of consumer profiles from minimal initial data.

RESULTS / IMPACT



OVERALL IMPACT

- Accelerated product development and improved product-market fit, strengthening competitive edge

SPECIFIC RESULTS

- Provided data for each test concept, meeting sample sizes (250/concept) and demographics
- Identified winning concepts based on high scores in key metrics (e.g., purchase intention, distinctiveness)
- Recommended the winning concept in each category
- Validated accuracy by comparing synthetic data with actual respondent scores (80% similarity)
- Client is now expanding this solution in other geographies and subcategories
- C5i is now setting up a full-fledged automated reporting module for the same solution

SNAPSHOTS FROM THE REPORT



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Test Concept

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 Nithesh N

Synthetic Concept Testing

Empowering Your Concepts with Synthetic Insights

New Concept Test

Recent Tests

No1	Variant 01	02 Apr / 11:44 AM	Single	Skincare - Serum	Average
No2	Variant 01	02 Apr / 11:44 AM	Multiple	Skincare - Serum	Below Par
No3	Variant 01	02 Apr / 11:44 AM	Multiple	Skincare - Serum	Best
No4	Variant 01	02 Apr / 11:44 AM	Single	Makeup - Compact	Best
No5	Variant 01	02 Apr / 11:44 AM	Single	Skincare - Serum	Below Par

Overview

112/150

Hair

Skincare

Makeup

Total Tests Conducted



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Product - Skincare - Serum

Concept 1

Variant 1

Concept 2

Variant 2

Concept 3

Variant 1

- Prioritize as the lead idea for the next phase of product development. has potential with higher Purchase Intent (PI) and credibility; consider introducing pricing and retest for appeal check.
- Consider as a potential lead for product development from the Fermented Skincare mix, given its consistent performance across all groups.
- Leverage the elevated appeal of among multi-ethnic groups and move forward the idea as the lead idea from Luxe Ideas.

Save Draft

Add More

Submit for Testing

KPI to be Measured

Region

Gender

Age Group

Ethnicity

Income

Responses



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Summary Table

Green cells indicate significant differences at a 90% confidence interval, across columns

Green arrow indicates significant differences from norms at a 90% confidence interval

Total Performance Score	0.808	0.77	0.763	0.739
Key Measures Top 2 box	Concept 1 (A)	Concept 2 (B)	Concept 3 (C)	NORMS
BASE	250	250	250	250
Purchase Intent	75%	74%	73%	76%
Clarity	80% N	70%	68%	80%
Superiority	61%	55%	63%	76%
Likeability	86%	82% C	82%	76%
Relevance	81% B	80%	78%	76%
Distinctiveness	87%	81%	80%	76%
Believability	88%	84%	82%	76%
Willingness to pay (\$)	38%	38%	38%	38%

Dataset Results

Concept Level Summary

Demographic Level Summary

Gender

Age Group

Ethnicity

Income

Responses

ABOUT US

C5i is a pure-play AI & Analytics provider that combines the power of human perspective with AI technology to deliver trustworthy intelligence to global corporations. The company drives value through a comprehensive solution set, integrating multifunctional teams that have technical and business domain expertise with a robust suite of products, solutions, and services tailored for various horizontal and industry-specific use cases. At the core, C5i's focus is to deliver business impact at speed and scale by driving adoption of AI-assisted decision-making.

C5i caters to some of the world's largest enterprises, including many Fortune 500 companies. The company's clients include 4 of the top 7 companies in the world by market cap, 6 of the top 10 CPG companies in the world, and 5 of the top 10 pharmaceutical companies in the world. C5i has been recognized by leading industry analysts like Gartner, Forrester, and Everest Group for its Analytics and AI capabilities and proprietary AI-based solutions.



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