



Utilizing CATA analysis to help differentiate across a range of prototypes to ensure strategic objectives are met

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Introduction:

- When developing new products or flavors it is necessary to screen prototypes to ensure consumer acceptance and also to determine delivery against strategic objectives. An Action Standard using parity or better on Overall Liking vs. Control is a common hurdle; however, this measure alone cannot tell how well a prototype delivers against strategic objectives.
 - Often, in addition to collecting a full range of product diagnostics, a battery of questions is included to determine how well each prototype delivers on key attributes for the brand and/or category.
- Through client projects we have observed little differentiation across prototypes when using Agree/Disagree scales for a range of attributes. More recently, we have utilized CATA (Check All That Apply) questions to evaluate these attributes. In using CATA questions, we have observed more differentiation in the data and also better information regarding delivery on the overall strategy.
- Our client work has used either CATA or agreement scales, but never both for the same initiative. So we felt it important to construct our own experiment to compare and contrast these question types.

Our Experiment:

- We took the perspective of a cookie brand which wanted to introduce a new chocolate chip cookie that was “less processed” and more like “home-made” in an effort to deliver an optimal chocolate chip cookie experience.
- We set the following Action Standard – Parity or better on Overall Liking vs. Control and if a winning prototype is identified it will meet the following criteria:
 - Performs better than Control on the following attributes:
 - Tastes like home-made
 - Is a great cookie
 - Is fresh
 - Is made from real ingredients
 - Performs below Control on the following attributes:
 - Has an artificial taste
 - Is made with poor quality ingredients
 - Does not satisfy my chocolate chip cookie craving
 - Tastes stale

Analyzing CATA data:

- Control data is normalized.
- Data for each of the prototypes is then compared to Control to determine if there are any differences.

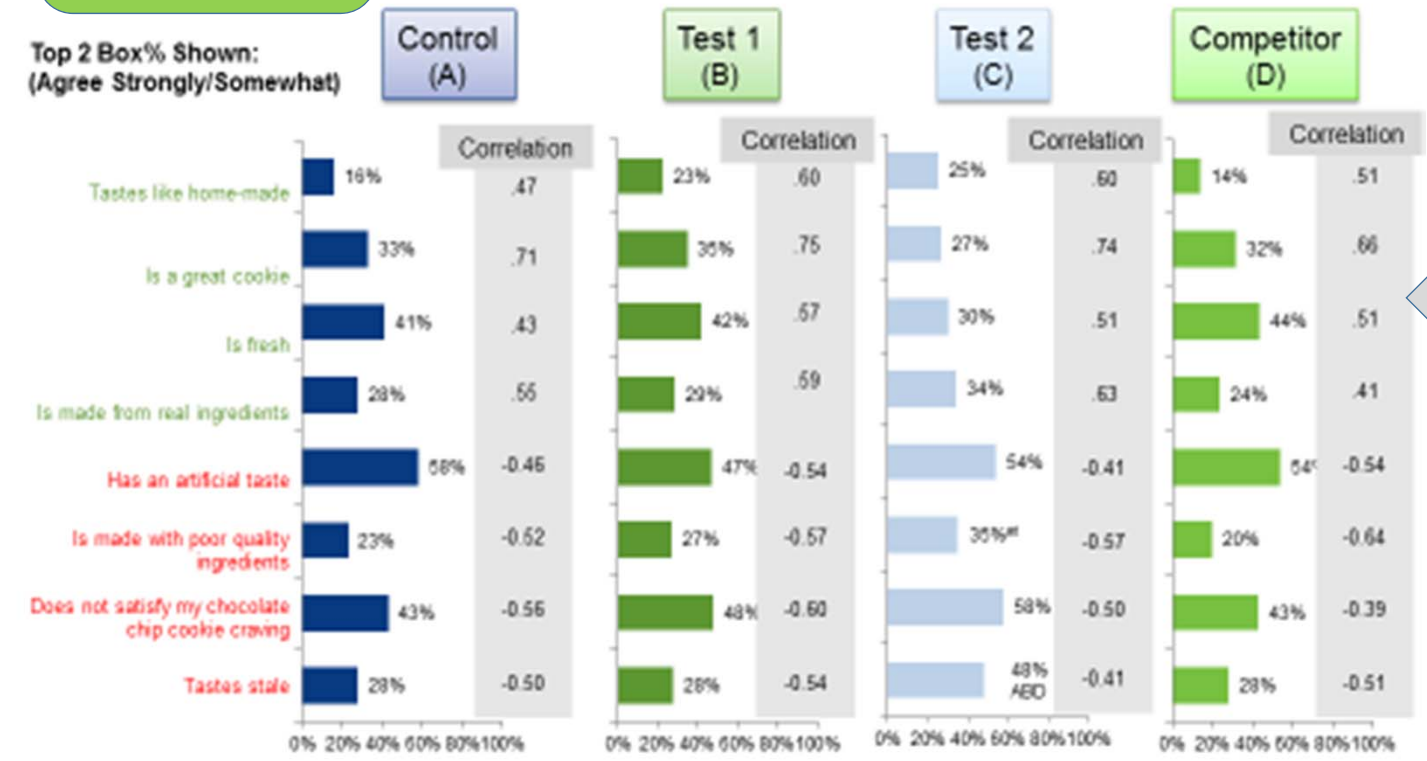
8 KEY STATEMENTS ABOUT CHOCOLATE CHIP COOKIES (full list contains 22 statements)	Below Control		Normalized Ratings of Control Cookie (X)	Above Control	
	Very significant difference	Significant difference		Significant difference	Very significant difference
Tastes like home-made			X		
Is a great cookie			X		
Is fresh			X		
Is made from real ingredients			X		
Has an artificial taste			X		
Is made with poor quality ingredients			X		
Does not satisfy my choc chip cookie craving			X		
Tastes stale			X		

Desired Outcome: **Increased** Perceptions on these Attributes

Desired Outcome: **Decreased** Perceptions on these Attributes

X Control (A)
 Prototype 1 (B)
 Prototype 2 (C)
 Competitor (D)

We correlated the T2B Agreement scores with overall liking and observed little discrimination across the products in the test.



Limited differentiation is observed across the samples

Products:

A = Control (Current Product)
 B = Prototype 1
 C = Prototype 2
 D = Competitor

Means: Overall Liking Ratings	A	B	C	D
Overall Liking	5.7C	5.6C	5.0	6.0BC
Appearance	6.2C	6.3C	4.9	6.3C
Flavor	5.7bC	5.3	5.2	5.9BC
Chocolate Flavor	5.7bc	5.4	5.4	5.9BC

Findings:

- This research shows Prototype 1 is equally well-liked as Control, whereas Prototype 2 falls behind.
- Though Prototype #1 does achieve the Overall Liking portion of the Action Standard, it does not deliver on the overall strategic objectives.
 - Prototype #1 is heavily aligned with Control on key desired attributes, but performs weaker than Control on the lesser desired attributes.
- Interestingly, the Competitor product is more well-liked than either of the prototypes and does a better job than Control on delivering against key strategic objectives.

Conclusions :

- Our experiment indicates the use of CATA questions to evaluate key attributes results in greater data differentiation, which ultimately leads to better strategic guidance.
- Our experiment confirms what we have found through our client work. The use of a CATA question to determine prototype delivery on key attributes is superior to using an Agree/Disagree scaled question.
- The CATA question provides richer data and is a better diagnostic tool for determining whether or not winning prototypes deliver against strategic objectives.

Methodology: Mobile Research - Home-Use Test – Philadelphia, PA

- Study Design :**
 Complete block, Blind Sequential Monadic Test (n=200)
- Cell 1 (n=108) evaluated the attribute statements using CATA
 - Cell 2 (n=108) evaluated the attribute statements using a 5pt. Agree/Disagree scale
- Respondents:**
- Males/Females
 - Ages 14+
- Respondents evaluated four samples – Control, Prototype 1, Prototype 2 & Competitor
- Data Collection was completed using a mobile device.
- Average testing length: 11 minutes
 - Respondents evaluated products in randomized order.
 - Respondents were provided a QR code to use as a link to the survey program or the url for the survey link. The program included all instructions and prompts to allow the respondents to self-administer the product evaluation.

References:
 “The application of check-all-that-apply (CATA) consumer profiling to preference mapping of vanilla ice cream and its comparison to classical external preference mapping,” – Food Quality and Preferences, 2010, 21, 394-401, Dooley, L. Lee, Y. Meullenet, J.
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