Free Choice In-Context Preference Ranking: A New Approach for Portfolio Assessment

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Product Challenges

- **Existing Products**

  – How do our products stack up vs. competitors?

    - Are our current products better than the competition?

    - What if we add line extension or replace the existing SKUs with new products? How does this impact the overall portfolio?
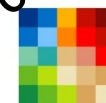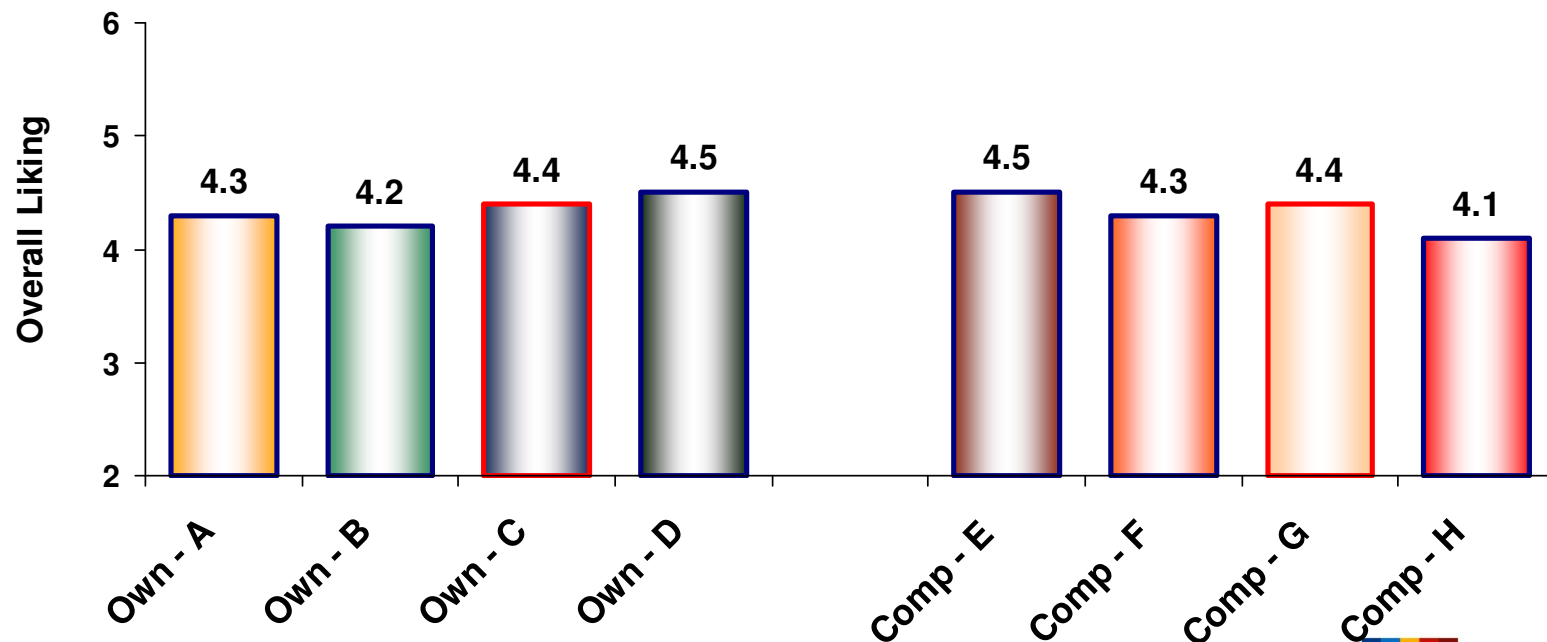
- **New Products**

  – What is the optimum mix of products to launch?

    - How many and which ones should be included?

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Review of Current Approaches

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# Review of Current Approach – Hedonic Ratings

- Many companies rely on hedonic ratings (liking or purchase interest)

    - Compare mean liking or TB/T2B on purchase interest

- Compare performance at the product level, but not the product bundle

- Does not reveal products that appeal to a specific consumer segment

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Review of Current Approach – Paired Preference Test

- Generally for head to head comparison e.g., own vs. competitor

  - Does not work with a large set of products

- In many cases, the preference question is asked after hedonic ratings – potential consistent bias
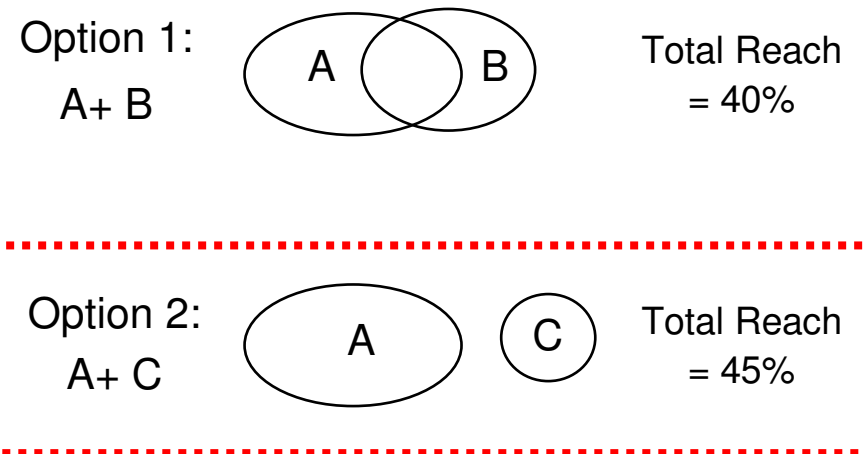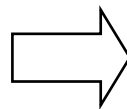
% Indicated Most Preferred Product

■ Own Product ■ Competitor ■ None

8%

39%

53%

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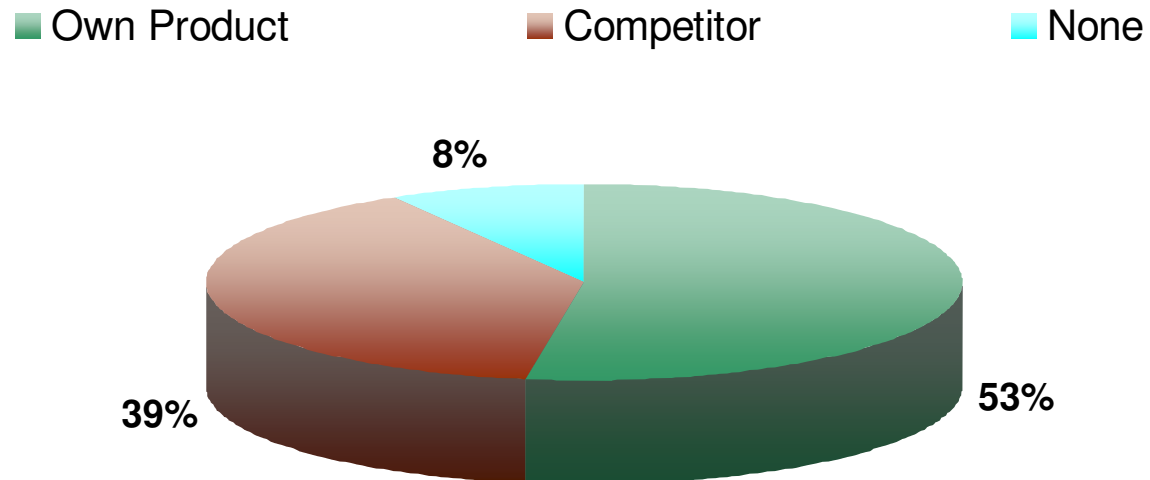
Review of Current Approach – TURF

- TURF (Total Unduplicated Reach and Frequency)

  - Identify the optimal mix of products (# and components) that maximize consumer reach

    – Pick the combination that compliments well and gains highest reach, regardless of individual product appeal

Ex: Select 2 products to the market

	TB Purchase Interest
Product A	30%
Product B	20%
Product C	15%

Option 1:
A+ B

A   B

Total Reach = 40%

Option 2:
A+ C

A   C

Total Reach = 45%

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Challenges with TURF

- Does not tell us # products we need to beat the competition

- Does not tell us where we are relative to competition

Ex: Assume 7 fragrances (A,B,C,D,E,F,G) are being considered

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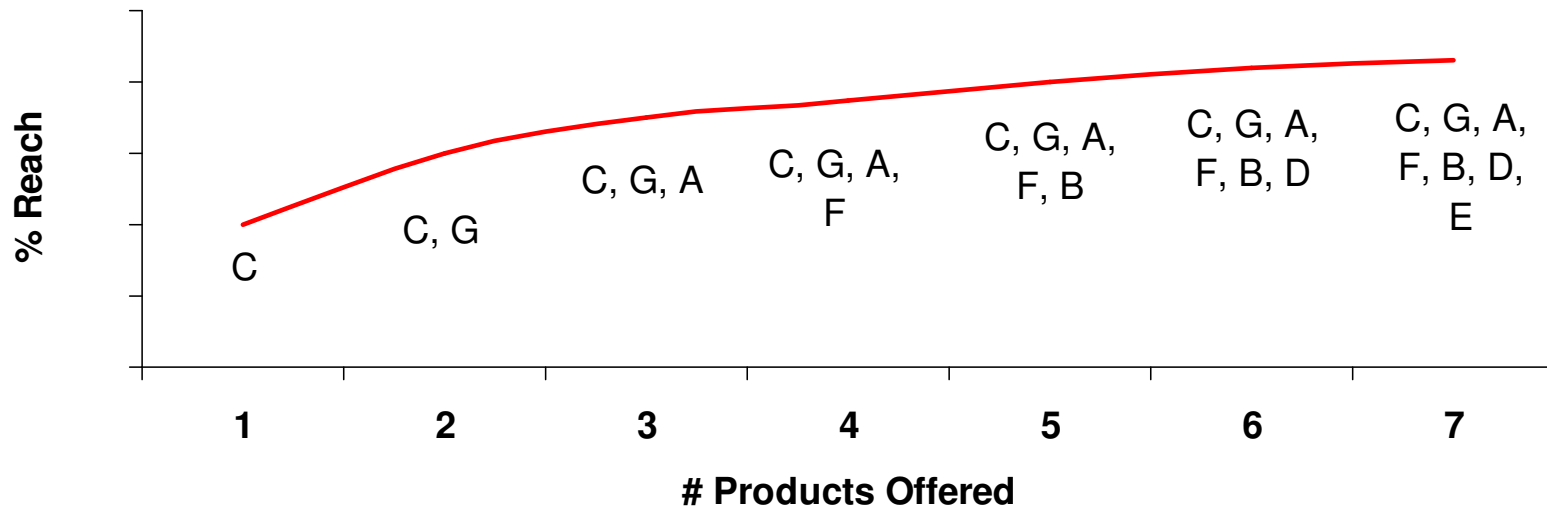
Alternative Approach

— "Free Choice In-Context Preference Ranking"

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Free Choice In-Context Preference Ranking

- Measure preference based on multiple use/ free choice in natural

  setting

- Handle a large set of products, including competitive products

- Apply preference ranking data to address portfolio comparison and

  optimization questions

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How does it work?

• Assign a set of products to use in sequential monadic test over multiple weeks. Everyone receives all products (can include competitive products)
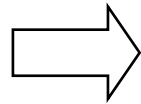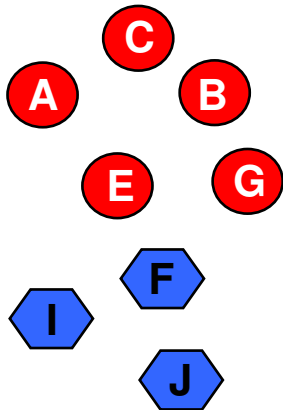
• Within each set, use products in a sequential order and indicate whether it is in their consideration set
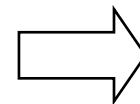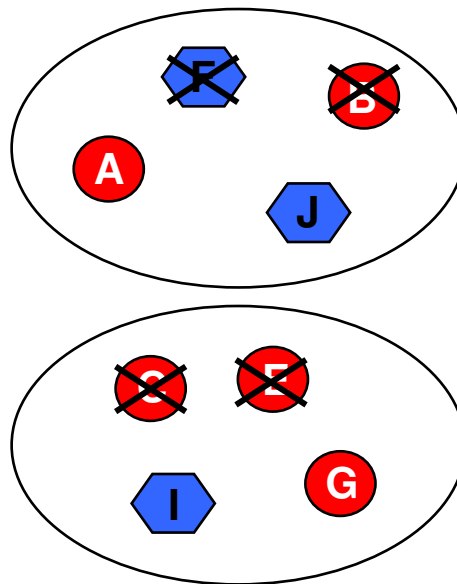
• Assign a new set of products (those in the consideration set) – different set for each individual. Freely use products and rank preference at the end
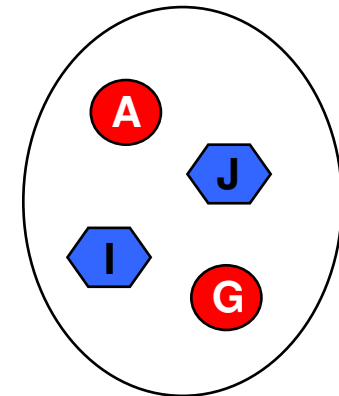
Case Study

- Scenario:

  – Company X (4 SKUs) vs. Competitor Y (2 SKUs)

  – Company X also considers some new products in this product line

- Business Questions:

  – With the current offering, what is Company X's reach vs. Competitor Y?

  – For Company X, Do they need all 4 SKUs? What if they keep only 2 best performing SKUs?

  – If Company X wants to change its product offerings, what is the best mix of their products? How many do they need to beat the competition?

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Products

Company X'
Current 4 SKUs

A B C D

Competitors Y -
2 SKUs

E F

Company X' potential
new products

G H I J

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Data

Participant ID	Ranked 1st	Ranked 2nd	Ranked 3rd	Ranked 4th
101	C	A	E	-
102	H	D	F	E
103	E	F	B	C
104	G	E	-	-
…	…	…	…	…
…	…	…	…	…
…	…	…	…	…
…	…	…	…	…

NOTE: Product not shown means it is not in the consideration set for that participant

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Question # 1:

- **With the current offering, what is Company X's reach vs. Competitor Y?**
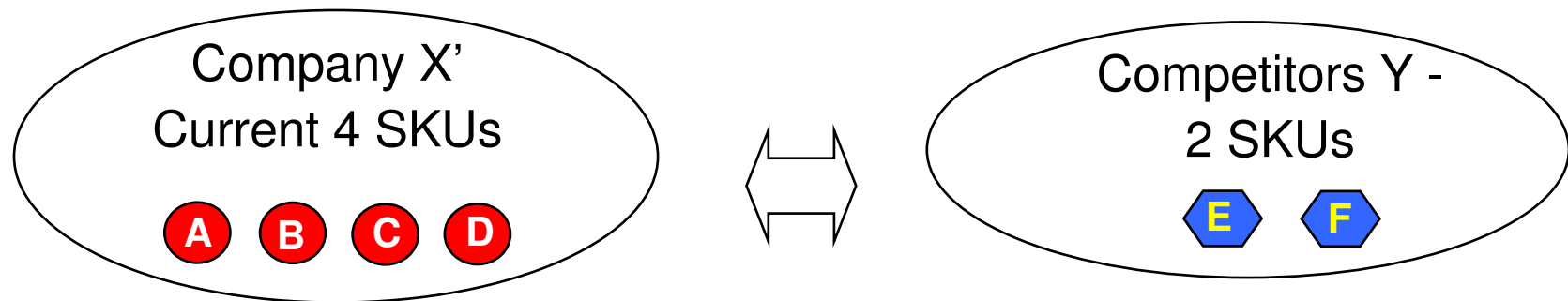
Company X'
Current 4 SKUs

(A) (B) (C) (D)

⟺

Competitors Y -
2 SKUs

(E) (F)

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Analysis Plan

- Identify frequency each product gets ranked first
  - Company X: **A** **B** **C** **D**
  - Competitor Y: **E** **F**

- If other products, other than these 6 products, are ranked first, go to the next rank until we find one of these products
  - E.g., Rank order: **G** > **J** > **F** > **D**

    - In this case, **F** is considered ranked first

- Identify # participants who have none of these 6 products in the consideration set

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ID	User	R1	R2	R3	R4	R5	R6
106	1	F	C				
109	1						
110	1						
112	1	I	A	F			
114	1	C	F	B	A		
116	1	E	I				
117	1	A	B				
121	1	G	D				
125	1	B	G	E			
128	1	C	A	B	J		
133	1						
138	1	C	J	B	G		
146	1	D	E	G	H	A	C
147	1	C	H	B	E	A	F
150	1						
158	1	A	B	C	D	E	F
159	1	E	J	A	B	F	H
162	1	I	E	C			
165	1	H	C	F	A	G	D
166	1	B	F				
167	1	A	B	C	G	H	
168	1						
171	1	A	E				

Company X (4 SKUs) vs. Competitors Y (2 SKUs)

Company X

A B C D

Competitor Y

E F

Competitor Y - 31% Reach

Company X - 59% Reach

10%

13%

24%

18%

8%

11%

16%

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Question # 2:

- For Company X, is there a way to streamline the current offering?

  - Do they need all 4 SKUs? What if they keep only 2 best performing SKUs?
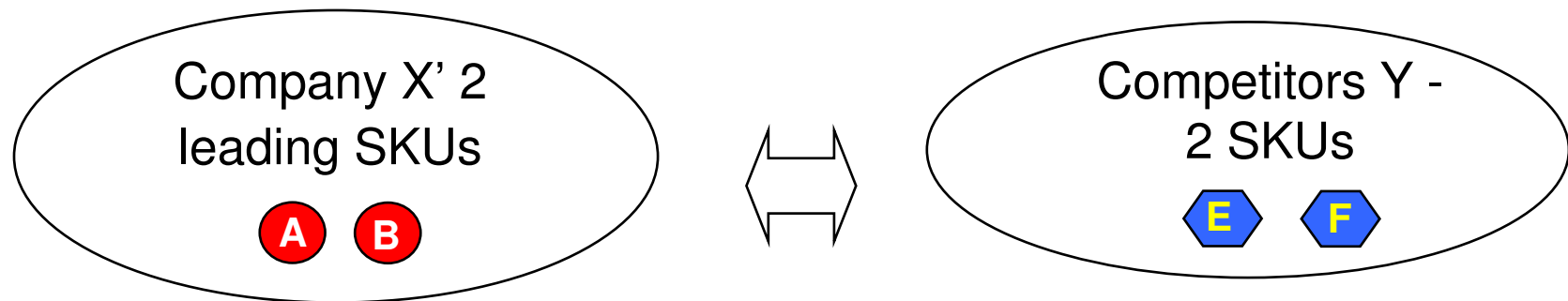
Company X' 2 leading SKUs

A **B**

Competitors Y - 2 SKUs

E **F**

Analysis Plan

- Identify frequency each product gets ranked first
  - Company X: **A** **B**
  - Competitor Y: **E** **F**

- If other products, other than these 4 products, are ranked first, go to the next rank until we find one of these products
  - E.g., Rank order: **C** > **J** > **F** > **D**

    - In this case, **F** is considered ranked first

- Identify # participants who have none of these 4 products in the consideration set

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Identify # Rank First on 4 Products (A,B vs. E,F)

Participant ID	Ranked 1st	Ranked 2nd	Ranked 3rd	Ranked 4th
101	C	A	E	-
102	H	D	F	E
103	E	F	B	C
104	G	E	-	-
…	…	…	…	…
…	…	…	…	…
…	…	…	…	…
…	…	…	…	…

NOTE: Product not shown means it is not in the consideration set for that participant

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Company X (2 Leading SKUs) vs. Competitors Y (2 SKUs)

Company X

A B

Competitor Y

E F

11%   18%

20%

Competitor Y - 50% Reach

A

B

F

E

Company X - 39% Reach

21%

30%

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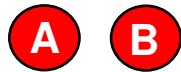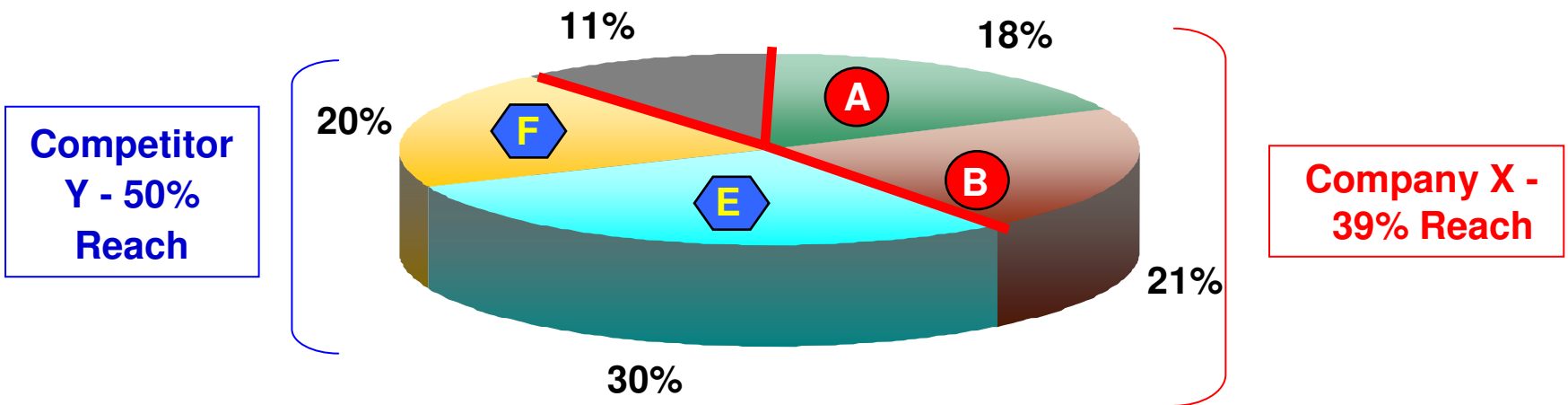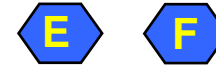
Question # 3:

– If Company X wants to change its product offerings, what is the best mix of their products? How many do they need to beat the competition?
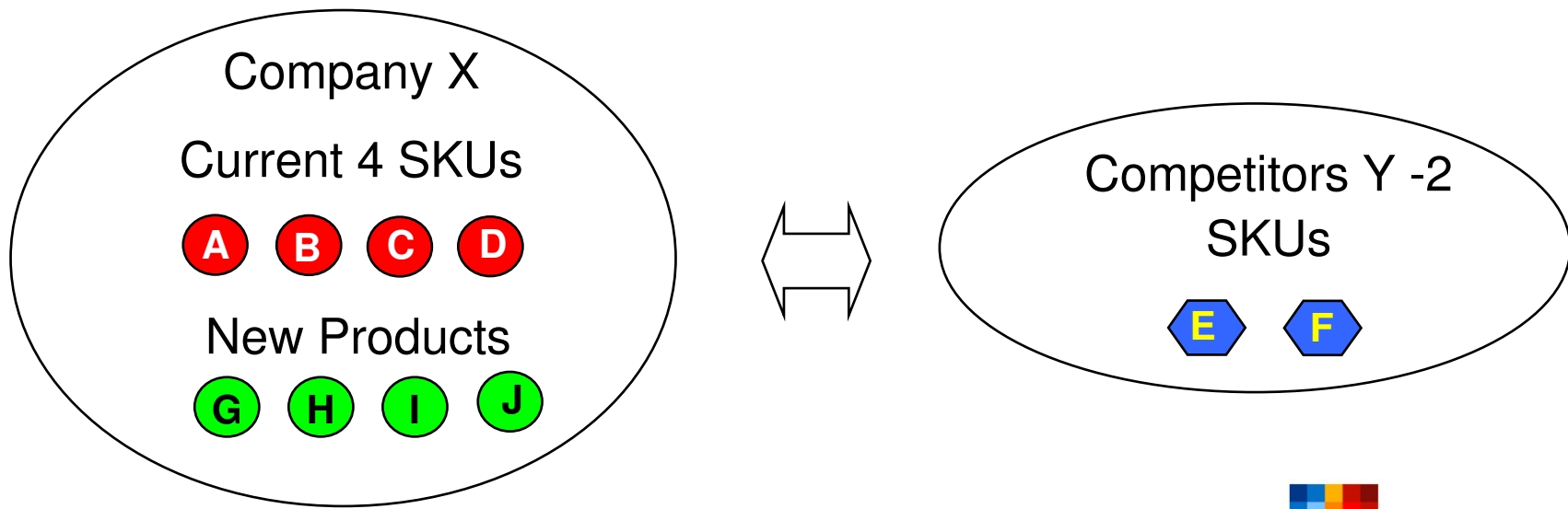
Different Scenarios

Scenario 1: Company X offers 1 product

	% Reach
Company X: **B**	30%
Competitor Y: **E** **F**	55%

Scenario 2: Company X offers 2 product

	% Reach
Company X: **B** **A**	39%
Competitor Y: **E** **F**	50%

Scenario 8: Company X offers 8 product

	% Reach
Company X: **A** **B** **C** **D** **G** **H** **I** **J**	60%
Competitor Y: **E** **F**	30%

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Identify # Product Mix Using Equilibrium Approach

— Company X's Reach   **— Competitor Y's Reach with 2 SKUs**

% Reach

Products Company X Considers

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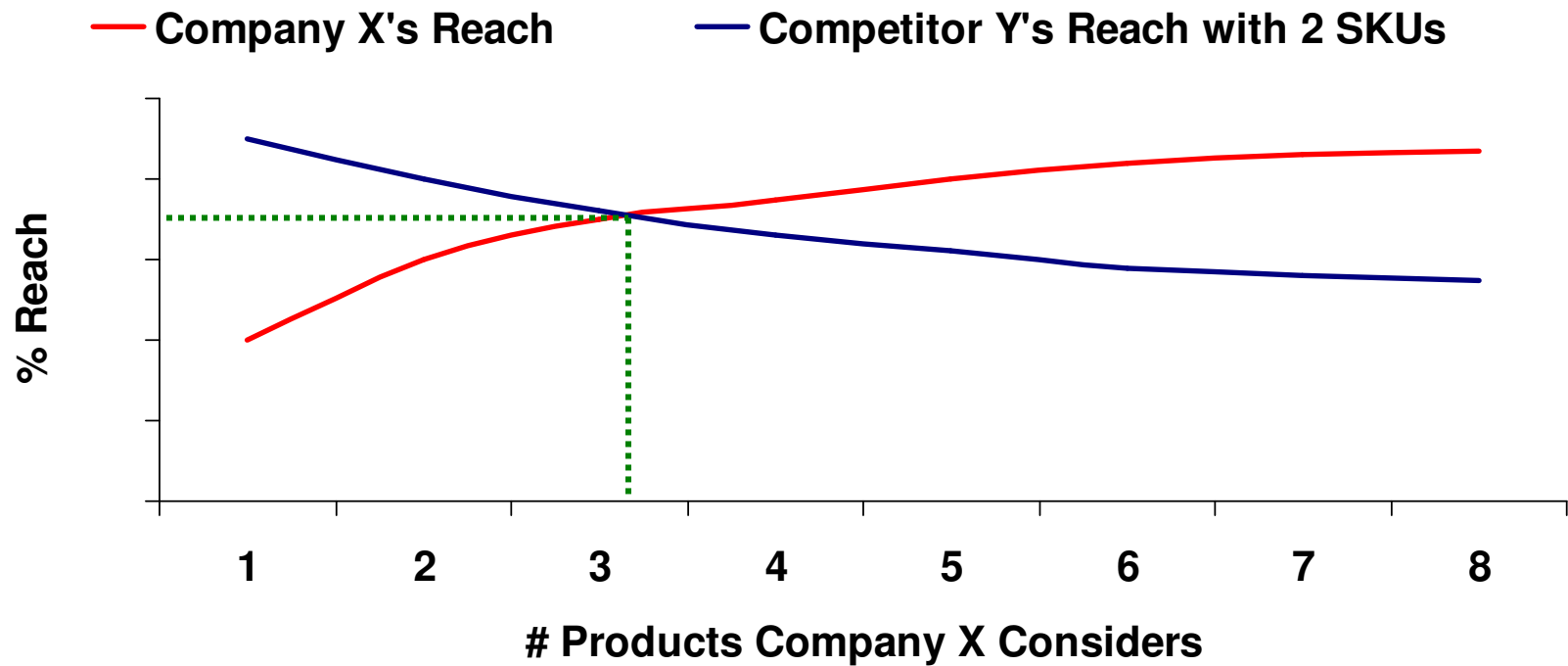
Conclusion - Free Choice In-Context Preference Ranking

- Allows us to address complex business questions (e.g., portfolio assessment and optimization)

- Measure preference based on multiple use in natural setting

    - Include a large set of products, including competitive products

- Output is intuitive and easy to understand and easy to communicate to the business

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Melissa's Granddaughter