

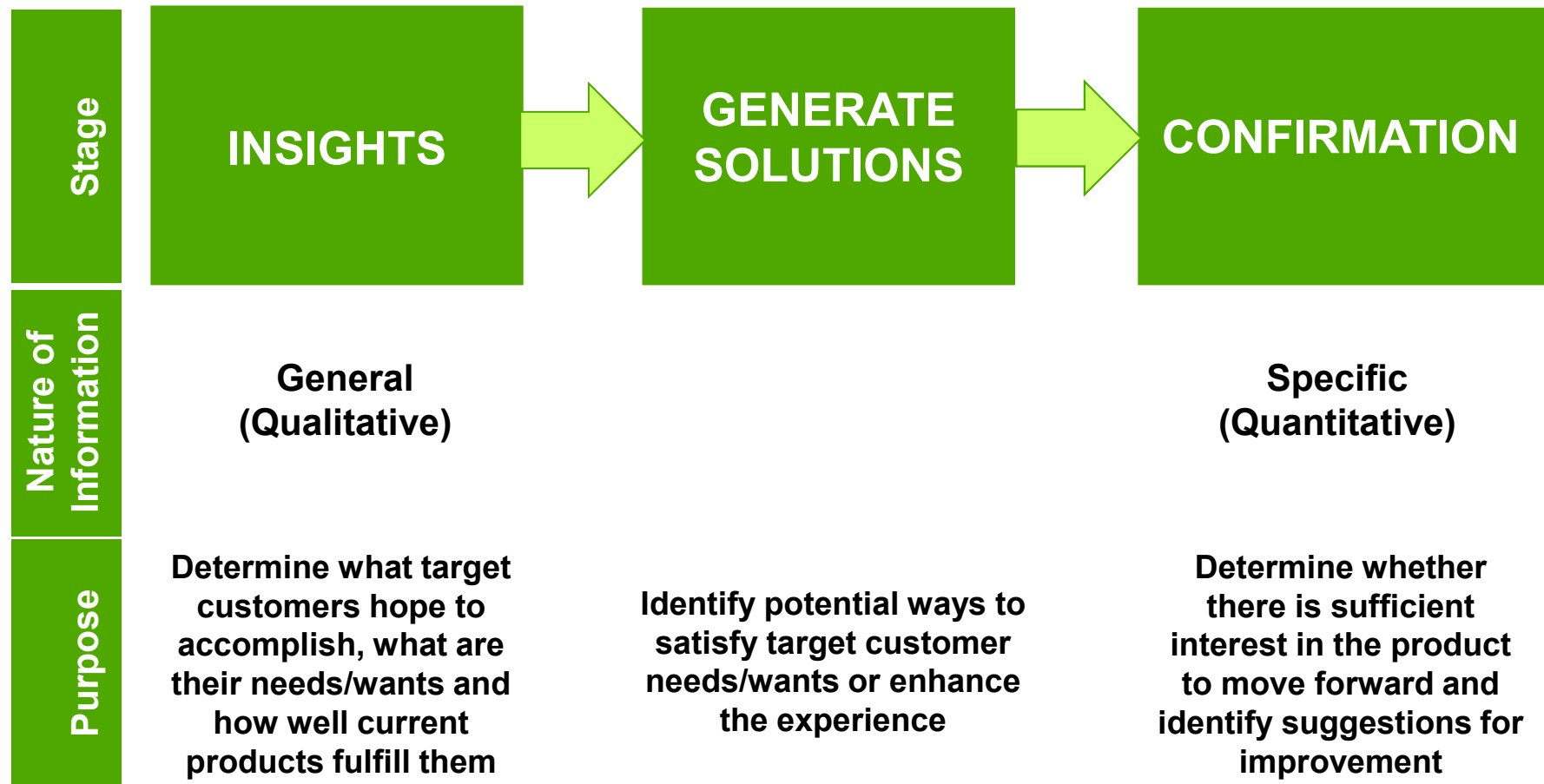


New Product Research

*Framework of Appropriate Research Types by
Stage in the Product Development Cycle*

The **Right**
Approach to
Business Decisions

Goal of Information Desired Varies by Stage in Product Development Cycle.



Applicable Research Techniques by Stage in the Product Development Cycle

INSIGHTS	GENERATE SOLUTIONS	CONFIRMATION
Qualitative Research <ul style="list-style-type: none"> • General • “Laddering” 	Idea Generation	Concept Test
Product Audit	Product Optimization <ul style="list-style-type: none"> • Conjoint 	Price Sensitivity Analysis
Feature/Benefit Priorities <ul style="list-style-type: none"> • Kano (classify) • Other “importance” methods • Quadrant analysis 		Product (Prototype) Usage Test
VOC Analysis		
Observational Research		

INSIGHTS

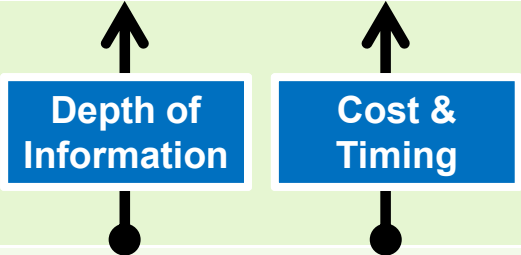
- **Prerequisite:**
 - *Who* we are trying to serve (i.e., target market)
- **Purpose:**
 - Understand customer needs, wants and motivations
 - Determine whether needs are homogenous or vary by segment
 - Evaluate how well current offerings meet/fall short of needs

Insight Techniques

Qualitative Research

Can also explore preliminary concepts

What it Is	<ul style="list-style-type: none"> ▪ Research method involving numerous open-ended questions <ul style="list-style-type: none"> ➢ Why did you purchase a boat? ➢ How do you use it? ➢ Why did you buy the brand you did? ➢ What were your top shopping requirements? ➢ What do you like/dislike about your current boat? ➢ Etc.
Methods	<ul style="list-style-type: none"> ▪ 1 on 1 (in-depth) interviews ▪ Focus groups ▪ Telephone interviews ▪ Online surveys
Best Used For...	<ul style="list-style-type: none"> ▪ Learning about subjects with limited prior knowledge ▪ Identifying the <i>breadth</i> of product needs/wants ▪ Understanding reasons why ▪ Looking for “clean slate” ideas/insights
Limitations	<ul style="list-style-type: none"> ▪ Group-think (focus groups) ▪ Not projectable



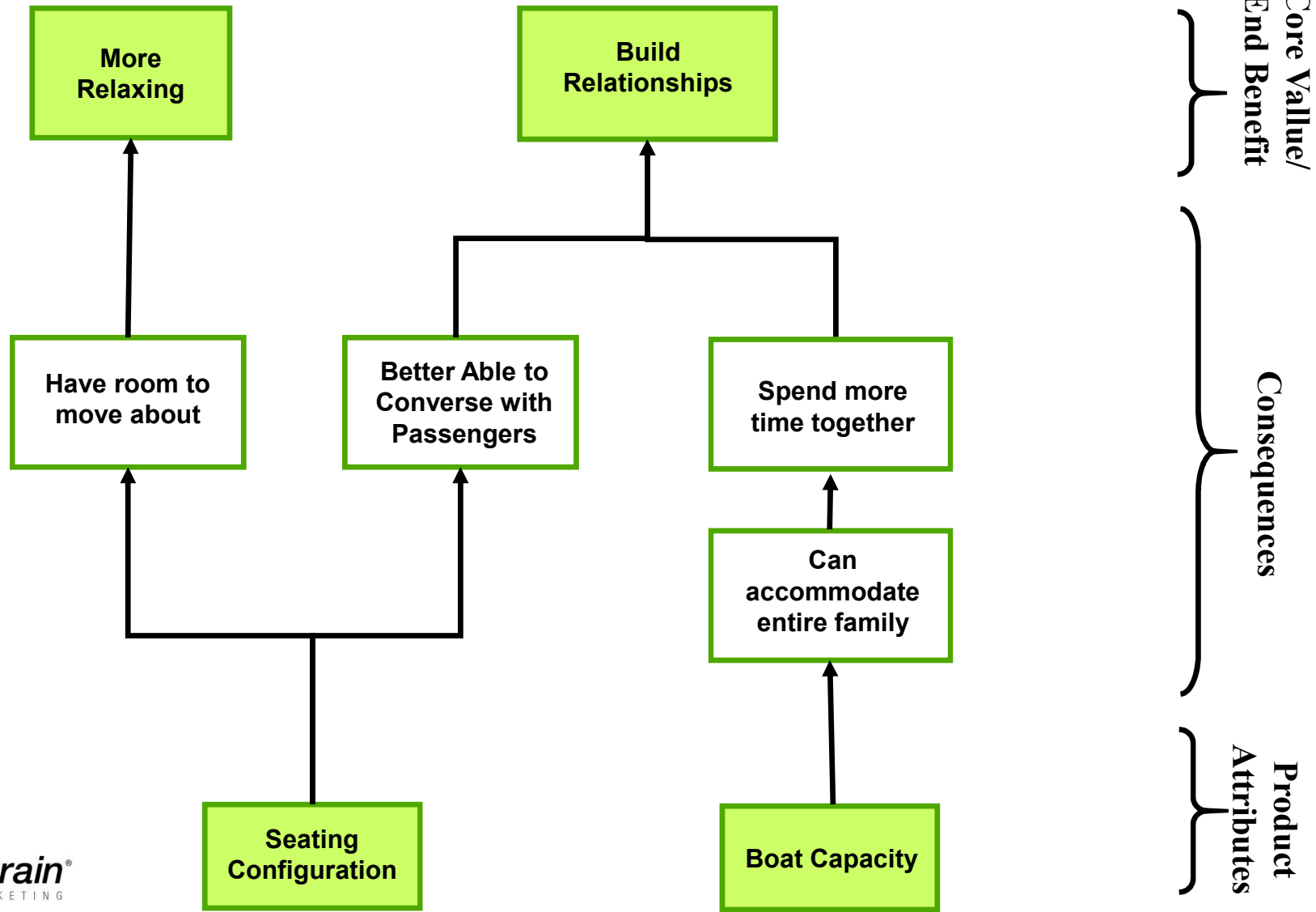
Insight Techniques

“Laddering” Research

What it Is	<ul style="list-style-type: none">▪ Qualitative interviewing technique that uses a sequence of “why” questions to uncover underlying reasons or motivations.▪ Results in the production of a means-end chain: Attribute > Consequences > Values/End Benefits
Method	<ul style="list-style-type: none">▪ 1 on 1 (in-depth) interviews <p><u>Two step process:</u></p> <ol style="list-style-type: none">1. Elicit important attributes2. Probe on each to identify linkage (chain)
Best Used For...	<ul style="list-style-type: none">▪ Gaining a “deeper” customer understanding▪ Developing brand communications
Limitations	<ul style="list-style-type: none">▪ Output (chain) is somewhat subjective▪ Information is mostly abstract/conceptual

Insight Techniques

“Laddering” Research – Example Output



Insight Techniques

Product Audit

Can also explore preliminary concepts

What it Is	<ul style="list-style-type: none">▪ Research technique whereby respondents do a “hands on” evaluation of one or more products (typically in a showroom) followed by a detailed discussion.▪ Evaluate products overall and by specific area:<ul style="list-style-type: none">➢ Exterior (design/styling)➢ Bow➢ Stern➢ Helm/Console
Methods	<ul style="list-style-type: none">▪ Focus groups▪ 1 on 1 (in-depth) interviews
Best Used For...	<ul style="list-style-type: none">▪ Incremental product improvements▪ Addressing competitive deficiencies (benchmarking)
Limitations	<ul style="list-style-type: none">▪ Group-think (focus groups)▪ Requires access to physical product(s)▪ Less likely to produce <i>highly</i> innovative insights

Insight Techniques

Product Audit – Sample Worksheet

Respondents inspect 1 or more products and fill out evaluation forms.



3c. Actual Boat – Bow Area
Showroom Boat

Group: _____
Initials: _____

Bow Area
Examine the bow portion of the boat on the showroom floor and then answer the questions below.

23. Overall, how appealing is the bow area of this boat for your needs & usage?

<u>Poor</u>										<u>Excellent</u>
1	2	3	4	5	6	7	8	9	10	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. What do you like about the bow area of this boat?

25. And what changes would you recommend to make this bow area even more appealing?

26. Please rate this bow area on the following attributes:

	<u>Poor</u>										<u>Excellent</u>	
	1	2	3	4	5	6	7	8	9	10	11	12
a. Seats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Storage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Spaciousness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Comfort & Convenience Features	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Group discussion afterwards.

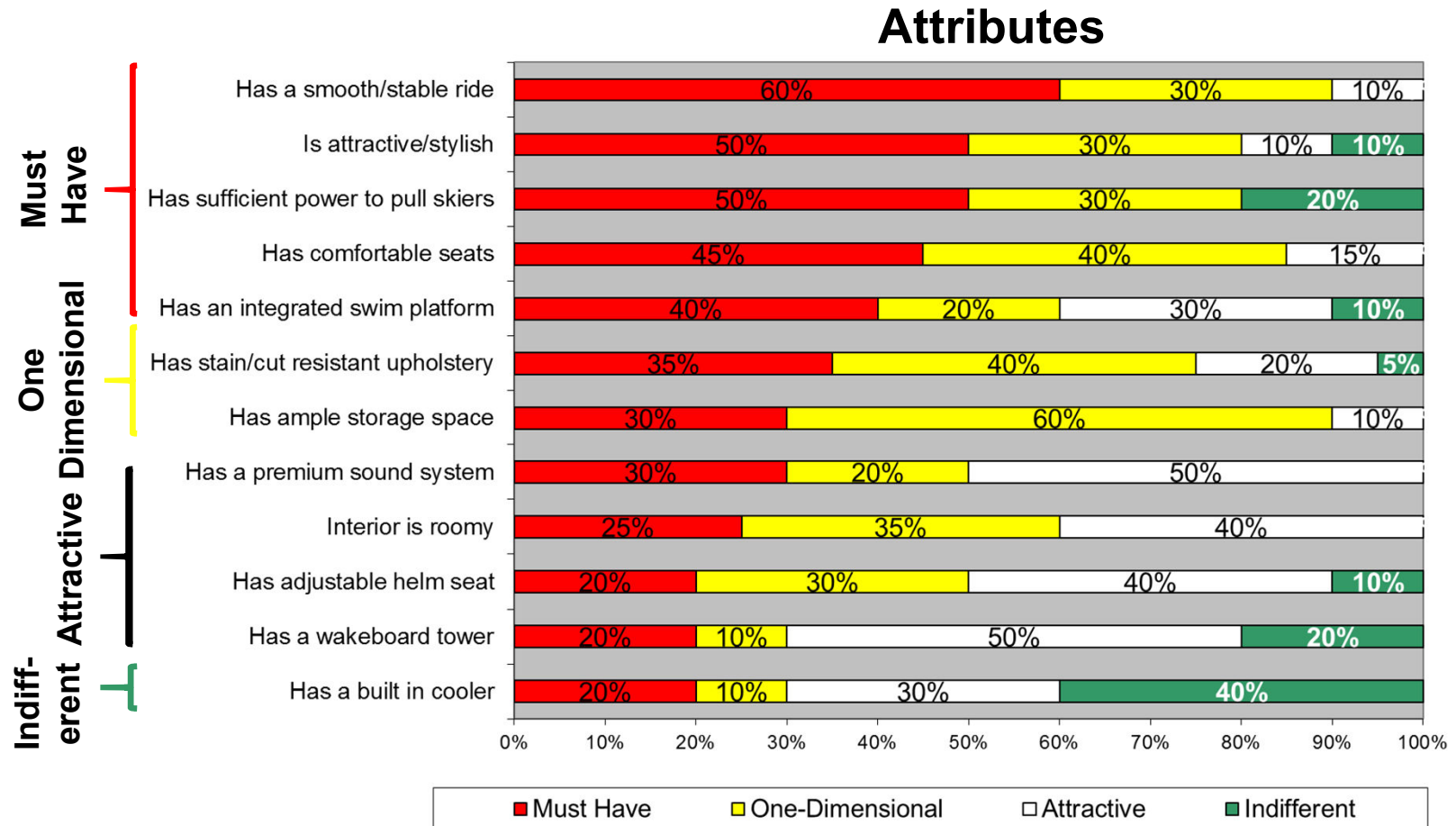
Insight Techniques

Kano

What it Is	<ul style="list-style-type: none">▪ A research technique in which individual product attributes are classified as either “must haves”, “one dimensionals”, “attractives” or “indifferents” based on the pattern of responses
Method	<ul style="list-style-type: none">▪ Online survey where respondents designate their feelings regarding each of 2-4 dozen attributes:<ul style="list-style-type: none">➢ I dislike it that way➢ I can tolerate it that way➢ I am neutral➢ I expect it that way (basic requirement)➢ I like it that way▪ Each attribute is presented in a functional (attribute present) and dysfunctional (attribute absent) form
Best Used For...	<ul style="list-style-type: none">▪ Narrowing down a long list of product attributes▪ Identifying mandatory vs. optional product features▪ Identifying areas to differentiate products
Limitations	<ul style="list-style-type: none">▪ Sensitive to attribute wording▪ Classification scale can be confusing

Insight Techniques

Kano – Example Output



Insight Techniques

Other “Importance” Methods

What it Is	<ul style="list-style-type: none">▪ A type of survey question that explicitly measures the relative “importance” or priority of various product needs, attributes or features
Methods	<ul style="list-style-type: none">▪ Typically performed via an online survey▪ There are several different approaches to measuring importance:<ul style="list-style-type: none">➢ Stated importance➢ Constant sum➢ Card sort
Best Used For...	<ul style="list-style-type: none">▪ Narrowing down a long list of potential product features/attributes to determine which to offer or emphasize
Limitations	<ul style="list-style-type: none">▪ Need to carefully define “importance”▪ Some features/attributes may be difficult to describe

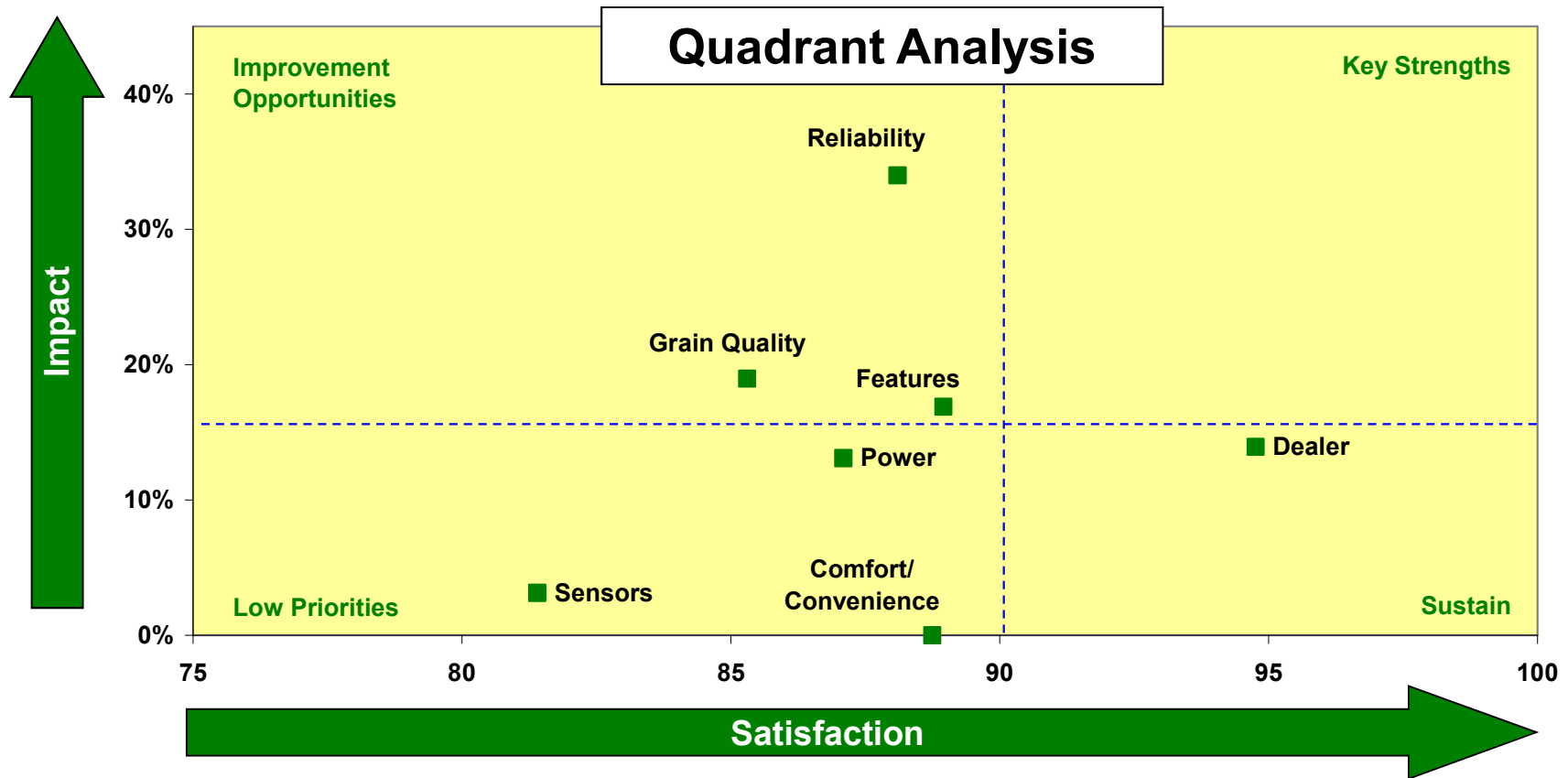
Insight Techniques

Quadrant Analysis

What it Is	<ul style="list-style-type: none">▪ A plot of importance vs. satisfaction data to identify priority areas for improvement
Methods	<ul style="list-style-type: none">▪ Inputs can be obtained from an online survey or from an analysis of VOC data
Best Used For...	<ul style="list-style-type: none">▪ Incremental improvements to existing products▪ Focusing resources on areas that have the greatest impact on customer satisfaction
Limitations	<ul style="list-style-type: none">▪ Provides direction on <i>where</i> to focus resources but not <i>why</i> or <i>how</i> to improve the product

Insight Techniques

Quadrant Analysis – Example Output



Insight Techniques

VOC Analysis

What it Is	<ul style="list-style-type: none">▪ A thorough analysis of data from an existing VOC program to identify improvement opportunities
Methods	<ul style="list-style-type: none">▪ Several analysis techniques using VOC data:<ul style="list-style-type: none">➢ Satisfaction Gap Analysis➢ “Drivers” (derived importance) Analysis➢ Quadrant Analysis➢ PP100 Analysis➢ Coded open-ended responses
Best Used For...	<ul style="list-style-type: none">▪ Refining current products▪ Identifying issues for further investigation▪ Prioritize opportunities for improvement
Limitations	<ul style="list-style-type: none">▪ Not applicable for very new/different products▪ Requires VOC data▪ Restricted to metrics included in the VOC survey▪ Little “why” information

Insight Techniques

Observational Research

What it Is	<ul style="list-style-type: none">▪ A research technique that involves the direct observation of consumers in a natural setting
Methods	<ul style="list-style-type: none">▪ Covert observation:<ul style="list-style-type: none">➢ At the dock➢ At a boat show or dealer show room▪ Overt observation:<ul style="list-style-type: none">➢ Ride with a pro team member
Best Used For...	<ul style="list-style-type: none">▪ Learning how consumers interact with your product▪ Situations where self reported information is suspect
Limitations	<ul style="list-style-type: none">▪ Too intrusive in some usage situations▪ Somewhat subjective▪ Not generalizable▪ Can't measure cognitive information

GENERATE SOLUTIONS

- **Prerequisite:**
 - Who we are trying to serve (i.e., target market)
 - Insights into customer needs/wants, desires or frustrations
- **Purpose:**
 - Develop one or more product concepts to develop and test

Techniques for Generating Solutions

Idea Generation

What it Is	<ul style="list-style-type: none">▪ Brainstorming sessions to identify creative solutions to known customer issues, needs or opportunities
Method	<ul style="list-style-type: none">▪ Moderated group session with employees, business partners or select customers▪ Involves several steps:<ul style="list-style-type: none">➢ Clearly defining the problem or opportunity➢ Having participants generate multiple ideas in a non evaluative environment➢ Build on others ideas➢ Identify most promising solutions
Best Used For...	<ul style="list-style-type: none">▪ Developing new/innovative products or solutions▪ Difficult challenges
Limitations	<ul style="list-style-type: none">▪ Time consuming

Techniques for Generating Solutions

Conjoint

What it Is	<ul style="list-style-type: none">▪ A research technique where respondents are sequentially shown two or more products (attribute bundles) and asked which one they prefer▪ From analysis of conjoint data, can determine relative importance of various attributes (levels) and optimum combination to maximize share of preference
Methods	<ul style="list-style-type: none">▪ Online survey▪ Requires predefining 5-10 product attributes and 3-5 levels for each
Best Used For...	<ul style="list-style-type: none">▪ Optimizing products when there is a fairly small number of (largely objective) product attributes to vary
Limitations	<ul style="list-style-type: none">▪ May not be suitable for “subjective” attributes▪ Can only test a small number of attributes (10 or less)

Techniques for Generating Solutions

Conjoint – Example Inputs

Define Attributes & Levels to Test

Attribute	Levels to Test
Brand	Tahoe, Bayliner, Larson, Four Winns, Crownline
Capacity	6, 7, 8
Engine Size	3.0 L, 4.3 L
Upholstery	Standard Vinyl, Premium Tear/Stain Resistant Vinyl
Swim Platform	None, Partial, Full
Tower	None, Tower with Rack, Tower with Rack and Speakers
Stereo	Standard (AM/FM, CD), Premium (AM/FM, CD, Satellite)
Price	\$25,000, \$30,000, \$35,000, \$40,000, \$50,000

Preference Task

Brand	18' Bayliner	18' Tahoe
Capacity	6	7
Engine Size	4.3 L	3.0 L
Upholstery	Standard Vinyl	Premium Tear/Stain Resistant Vinyl
Swim Platform	None	Full
Tower	Tower with Rack	None
Stereo	Standard (AM/FM, CD)	Premium (AM/FM, CD, Satellite)
Price	\$30,000	\$25,000

Preference

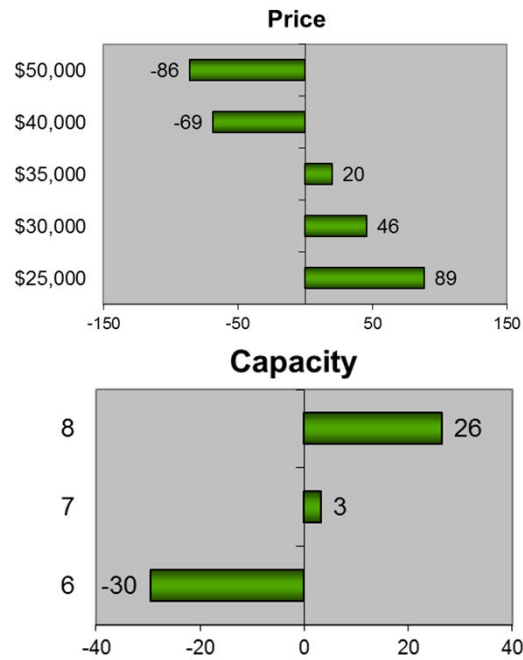


Each respondent given 15-20 pairs
Attribute levels vary for each pair

Techniques for Generating Solutions

Conjoint – Example Outputs

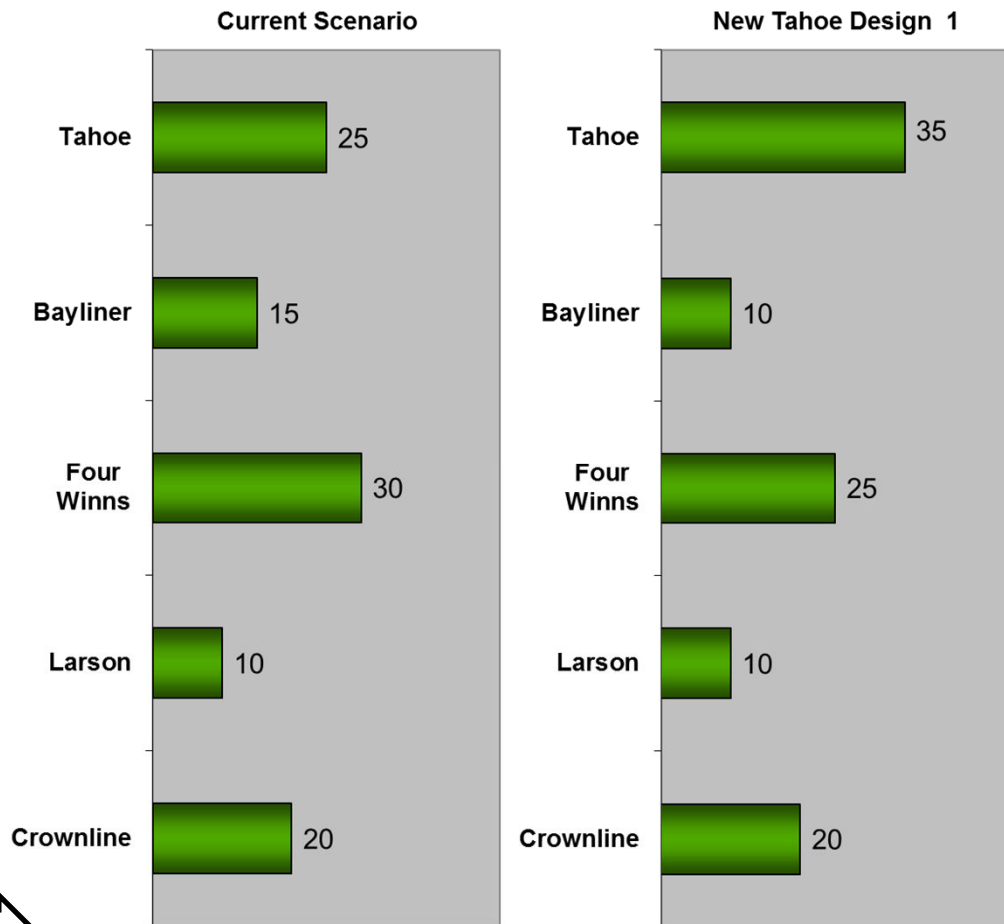
Utilities



Simulator

Can run “what if” scenarios with different attribute level combinations to determine impact on share of preference

Share of Preference



CONFIRMATION

- **Prerequisite:**
 - Who we are trying to serve (i.e., target market)
 - Insights into customer needs/wants, desires or frustrations
 - One or more product concepts/solutions
- **Purpose:**
 - Determine whether or not to go forward with development of the product concept
 - Identify specific ways to enhance its appeal
 - Identify marketing elements

Confirmation Techniques

Concept Test

What it Is	<ul style="list-style-type: none">▪ A research study in which one or more product concepts are presented to respondents, often in a competitive context, to identify the level of consumer interest in each (share of preference)▪ Each product concept consists of...<ul style="list-style-type: none">➢ An illustration or 3D image (from CAD drawing)➢ A brief written description▪ Items can be evaluated with and without prices
Methods	<ul style="list-style-type: none">▪ Online study▪ Specific research design varies depending on the number of product concepts to be evaluated
Best Used For...	<ul style="list-style-type: none">▪ Determining whether a product concept has sufficient consumer interest to develop further▪ Screening multiple product ideas to determine which one(s) have the most potential
Limitations	<ul style="list-style-type: none">▪ May not be suitable for high “touch and feel” product concepts

Confirmation Techniques

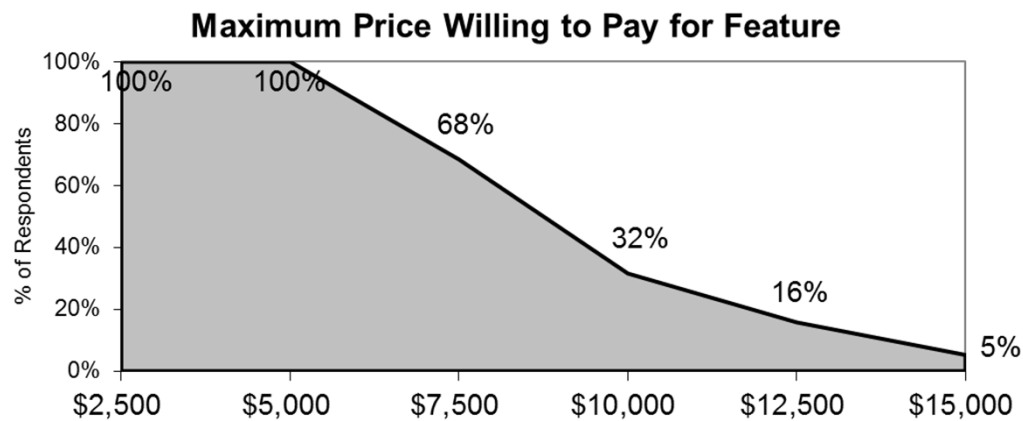
Price Sensitivity Analysis

What it Is	<ul style="list-style-type: none">▪ A survey questioning technique to identify the maximum price consumers would pay for an item
Methods	<ul style="list-style-type: none">▪ Often included in an online survey as part of a concept test▪ At least two types of questioning techniques:<ol style="list-style-type: none">1. Iterative purchase preference at varying prices2. Van Westendorp technique
Best Used For...	<ul style="list-style-type: none">▪ Getting a ballpark feel for the perceived value of a new product
Limitations	<ul style="list-style-type: none">▪ Easier to spend hypothetical money▪ Does the product description match the product reality?

Confirmation Techniques

Price Sensitivity Analysis – Example Output

Iterative Purchase Preference



Van Westendorp

Price Scenario:	Median Price
At what price would you consider the product <i>so cheap</i> that you would question its quality?	\$2,500
At what price would you consider the product to be <i>a bargain</i> – a great value for the money?	\$5,000
At what price would the product start <i>getting expensive</i> , but still worth considering?	\$7,500
At what price would the product be <i>so expensive</i> that it would <i>not be considered</i> at all?	\$10,000

Target Price
(Midpoint)

\$6,250



Confirmation Techniques

Product (Prototype) Usage Test

What it Is	<ul style="list-style-type: none">▪ A research process to gather target customer feedback before and after actual product trial
Methods	<ul style="list-style-type: none">▪ Personal interviews conducted with individuals (1 on 1s) or groups (product clinics) at a marina or in a simulated usage setting▪ Information often obtained at three stages:<ul style="list-style-type: none">➢ Pre trial (to simulate boat show interest)➢ At trial (likes and dislikes of the experience)➢ Post trial (to simulate demo or W.O.M interest)
Best Used For...	<ul style="list-style-type: none">▪ When the costs to further develop and market the new product are substantial▪ When “touch and feel” are critical to its assessment▪ Identifying opportunities to refine current products
Limitations	<ul style="list-style-type: none">▪ Requires actual product or prototype▪ Logistical challenges▪ Fairly expensive

FINAL THOUGHTS

- Can often combine multiple research tools/techniques in the same study
- Budgets and timing are often a key consideration
- Though fairly expensive, getting consumer input into the product development process almost always provides a big ROI.
 - Avoiding “bad” ideas
 - Identifying ways to enhance current products (increase share)
 - Leveraging customer insights to develop new and innovative solutions
 - Uncovering “hot buttons” or competitor weaknesses for greater marketing effectiveness
- Need to budget time and money into the product development cycle



Thank You!

 Feel free to contact me with comments or questions.

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