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Market Research Toolkit

MARKETING SCIENCE CENTER

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The objective of this document is to provide a quick overview of market research techniques. More detail can be found in the Market Research Handbook (PD Net #6229) or by contacting a marketing science specialist.

MARKETING SCIENCE CENTER



There are two types of market research techniques: qualitative and quantitative. Generally, a research program starts with qualitative to generate hypotheses and quantitative to prove them.

TWO TYPES OF TECHNIQUES

		•		_
	Qualitative		Quantitative	\ _/
Objective	Generates hypotheses on decision makers, buying process, and key buying function (KBF)		Tests and quantifies hypotheses	
Tools available	Focus groups In-depth interviews Observational research		Quick hit Basic A&U Concept test Attitudinal Image engineering Conjoint analysis Discrete choice Customer service Diary panel	

FOCUS GROUPS



What is it?	Approximately a two hour discussion among 8 to 12 people, led by a moderator
When do you use it?	Early in the research process, to clarify the issues, generate ideas on hypotheses, and help determine what other research to conduct. This is particularly the case when there is little information on the subject or, when time and money are very limited, as the only research tool – particularly when vou don't expect a wide divergence of views
How do you do it?	Hire a moderator Recruit participants Prepare a discussion guide Attend focus group(s) Videotape the groups Debrief moderator to determine conclusions
What do you get out it?	A summary of key findings and well developed hypotheses for answering certain key issues
Approximate cost	\$3,000 - \$5,000 for each group of 10 consumer respondents Project typically two to six groups
Approximate time	To develop discussion guide, generate hypotheses: 2 weeks To conduct: in 1 week you can expect to conduct three to four groups if several cities are involved To synthesize findings/refine hypotheses: 1 to 2 weeks

FOCUS GROUP OUTPUT PAGE

Issue	Discussion output	Quotes	Implications
Sales force	Customer think salespeople are lazy	"They never follow up"	Need to focus the salesperson portion of the
	-	"I'm not even sure who	questionnaire on how to
	Methods to improve the sales force did not surface	my sales guy is"	improve the sales force
Competition	Little agreement as to who the competition is	"We compete with XYZ head to head"	Let respondent define their competition on questionnaire – do not define it for them
		"I never lose sales to	
		XYZ. Dillon and Peters are my main competition	Have section in questionnaire to find out who competes with who, and why

IN-DEPTH INTERVIEWS

What is it?	One-on-one interviews usually lasting at least 45 minutes Primary research tool when only have a few customers
When do you use it?	 Similar to focus groups, in-depth interviews are used to: Explore issues and underlying details Develop hypotheses Gain an understanding of key buying factors and brands Discover the language customers use Likewise, they can add value after quantitative research to further get your hands around the findings One-on-one are preferred to focus groups when: There exists specific people you wish to speak with Qualified respondents are few in number Specific issues requiring confidentiality, sensitivity or probing
How do you do it?	Hire a moderator Recruit participants Prepare a discussion guide Debrief moderator
What do you get out it?	A summary of key findings Well developed hypotheses Potential product/service definitions for quantitative research
Approximate cost	Projects typically \$100 to \$300 per interview
Approximate time	Interviews usually last 45 minutes to 2 hours

INTERVIEW WITH JOE BLOGGS, 34 YEARS OLD, 2 KIDS, C2

On February 1, 1994 we met with Joe Bloggs and his wife. The purpose of the discussion was to understand the decision making process they go through when buying financial services.

Key points

- 1. They make a joint decision when buying insurance.
- 2. They like the appeal of a "one stop shop" with one company.
- 3. They dislike home service and find it uncomfortable but instead prefer using the telephone.

Issues

- 1. An in-depth study of cross-selling opportunities and appeal would be beneficial.
- 2. A more thorough understanding of selling channels would be useful.

Next steps

Quantify segment size and scale of opportunities

OBSERVATIONAL RESEARCH

What is it?	A qualitative technique to observe customers
When do you use it?	To identify potential new products and services
What do you get out of it?	Hypotheses on latent demand from observing behavior and problems customers face
Approximate costs	Varies
Approximate timing	Varies

Many companies are observing decision makers for new insights into the customer.

EXAMPLES OF OBSERVATIONAL RESEARCH

- A pharmaceutical company followed GPs around all day to identify problems/stresses they face.
- Honda sent R&D engineers to rent rooms in houses in California to see how Americans interact with their cars.
- Small video cameras in retail stores record how consumers make decisions at the shelf.
- Ivory soap was created by seeing women who tended to lose the soap when washing clothes in the Ohio River.

Listed below are some best practices for using qualitative research.

HELPFUL HINTS FOR QUALITATIVE

- Generate hypotheses before qualitative to help structure research.
- Take stimuli (e.g., pictures) into qualitative to facilitate discussion.
- Be sure to be complete. You need to have an exhaustive list of key hypotheses.
- Attend the sessions. Videotape them for others not able to attend. Develop a first-hand point of view.
- Do not be too literal. People frequently are unable to articulate their precise thoughts.

Quantitative studies seek to prove hypotheses with data from a statistically representative sample.

QUANTITATIVE TECHNIQUES

Quick hit research	Is a short, very focused quantitative survey
Basic quantitative (usage and attitude)	Measures basic beliefs and behaviors for a category
Concept testing	Judges consumer reactions to specific new product idea
Attitudinal	Measures category attitudes for latent demand situations
Image modeling	Analyzes effects of brand imagery
Conjoint analysis	Measures trade-offs of product/services features and price
Discrete choice	Measures in-depth trade-offs of a few features and price
Problem detection	Understands root causes of why customers leave
Customer service modeling	Prioritizes specific elemenst of customer service
Diary panel	Track consumer purchases over time

QUICK HIT RESEARCH

What is it?	A very short quantitative questionnaire done very quickly
When do you use it?	To answer a very focused set of issues
What do you get out of it?	A quantitative answer quickly
Approximate costs	Typically under \$20,000
Approximate timing	Typically 1 to 3 weeks

Many companies use "quick hit" research for a very focused set of issues.

EXAMPLES OF QUICK HIT RESEARCH

- Interviewing at conventions to target a hard-to-reach group (e.g., Convention Research Studies)
- Adding a few selected questions to omnibus studies (e.g., Telenation at Market Facts)
- Targeting hard-to-reach consumer groups in a touch tone telephone survey (e.g., Yankelovich Project Advantage)

- Identifying new products and services opportunities among a key customer group, e.g., club member
- Profiling corporate identities among women's issues
- Determining price awareness for an impulse product

Turning to Yankelovich as a source, we have a strong relationship (in some ways, partnership) with Yankelovich to conduct quick "surveys" in their continual phone interviews drawing on a 16,000 respondent database (see separate document, *McKinsey & Yankelovich Partnership on Project Advantage* by Kevin Nuffer, January 1995).

OVERVIEW – WHAT IS IT?



DESCRIPTION OF TOOLS – BASIC QUANTITATIVE (USAGE AND ATTITUDE)

What is it?	Survey that measures basic beliefs about a category and identifies groups of customers by their needs
When do you use it?	When purchase decision is straightforward When client has never done research before and has little quantitative information
How do you do it?	 Hypothesize key buying factors Develop a range of KBF statements Measure consumer importance and competitive brand positioning on the KBFs Identify segments by KBFs Link segments to reported purchase behavior Cross reference with other data to identify gaps
What do you get out it?	A better understanding of customers' perceptions of products/services in the marketplace and some ideas for ways to position products
Approximate cost	\$30 to \$150 per consumer respondents
Approximate time	1 to 2 weeks for qualitative research 6 to 10 weeks to design, execute, and analyze research

The usual A&U questions probe the importance of key buying factors and competitive perceptions on each.

TYPICAL QUESTIONS

* Scale of 1-10

		Competitive ratings on delivery of the buyer factor*			
Buying factor	Importance*	Brand A	Brand B	Brand C	
Good service					
Lowest prices					
Broad selection of styles					
Known brands					
Latest fashions					

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For example, this retailer has a competitive strength in fashionability but is weak on price.



* 10 point scale

However, results should be understood by segment, each of whom have a different priority of needs.



Source: Market research

CONCEPT TESTING

What is it?	A research technique based on one-on-one interviews where consumers react to a specific new product idea
When do you use it?	When you need to assess a specific new product idea When you are confident you have defined the new idea properly
How do you do it?	Write a concept (similar to a print ad) Conduct interviews: • Current brands used • Habits and practices • Read concept • Intent to purchase • Likes and dislikes • Image ratings Project share/volume with calibration factors
What do you get out of it?	Share/volume for new product idea
Approximate cost	\$75 to \$300 per interview
Approximate time	6-10 weeks to design, execute, and analyze research

In a concept test, respondents' reactions to a new idea are gauged.

CONCEPT TESTING



• Image ratings

Concept purchase intent can be converted in trial rates, though the calibration factors are a key assumption. Certain market research firms specialized in this and have good databases and experiences. A marketing science specialist can help you find the appropriate firm.

CONCEPTS CAN BE CALIBRATED TO TRIAL

Purchase intent	Percent of respondents	Calibration*	
Definitely would buy	50%	75	_
Probably would buy	30	35	= 48.8% – Interested univers
Might or might not buy	15	5	x 50% – Awareness
Probably would not buy	5	0	X 80% – Distribution
Definitely would not buy	0	0	

^{*} Some research agencies have good experimental databases on calibration. Numbers are culturally and sometimes category dependent

By evaluating the perceptions of a new concept versus a current brand, we can analyze when it is possible to stretch a brand and where the brand is too strong to move.

STRETCHING CAN BE EVALUATED



ATTITUDAL RESEARCH

What is it?	Analysis based on individual interviews that identify groups of customers by their attitudes and perceived benfits toward the product or service or the product category
When do you use it?	In latent demand situations, when a market does not currently exist for the product When decisions involve complex issues such as multiple categories and future trends
How do you do it?	Hypothesize key attitudes and develop statements Measure customer agreement Identify segments by attitude needs Link segments to reported purchase behavior Cross reference with other data to identify gaps Determine likely acceptance of new/revised value propositions
What do you get out of it?	A better understanding of customers' attitudes toward products/services in the marketplace and some ideas for ways to leverage those attitudes to position products
Approximate cost	\$50 to \$300 per consumer interview
Approximate time	In one week 300 half hour phone interviews or 200 half-hour personal interviews 1-2 weeks for qualitative research 6-10 weeks to design execute and analyse research

Attitudinal segmentation is based on agreement to attitude/need statements. Each statement expresses customer's agreement towards a specific idea.

EXAMPLES OF ATTITUDE STATEMENTS

		Tot dis	ally agree	•			٦	Fotally agree
1.	Telecom services are essential for my business	1	2	3	4	5	6	7
2.	It is very important for my business to receive bills for each extension	1	2	3	4	5	6	7
3.	It is not necessary to understand my business to sell me telecom services	1	2	3	4	5	6	7
4.	Mobile phones are very critical for proper functioning of my business	1	2	3	4	5	6	7
5.	We definitely prefer to buy all our telecom services from one vendor	1	2	3	4	5	6	7
6.	It is very important for my business to have direct numbers for employees	1	2	3	4	5	6	7
7.	We prefer to deal with a telecom company that has good service rather than just a low price	1	2	3	4	5	6	7
8.	If my employees are traveling they should be able to be in phone contact with their home office	1	2	3	4	5	6	7
9.	I would definitely prefer to have my telecom company representative call me regularly to inform me about new products/services	1	2	3	4	5	6	7
10.	All I want is basic telecom products and services.	1	2	3	4	5	6	7

In one study, the statements focused on 6 broad areas. Each was covered by several related statements.

AREAS OF FOCUS OF ATTITUDE STATEMENTS

Overall importance of telecom	Æ	 Telecom services are essential for my business If telecom services are disrupted, I would lose a substantial part of my business I believe that further improvements in telecom technology can substantially improve my business
 Importance of service 	-[We prefer to deal with a telecom company that has good service rather than just a low price It is not necessary to understand my business to sell me telecom services
Billing needs	-	
Attitude towards price	-	
• Access	Æ	
 Importance of broad selection 	Æ	

The attitude/needs statements were synthesized into 8 factors. Respondents who were similar on these attitude/needs-based factors, were grouped into four distinct segments.

OVERALL ATTITUDE SEGMENTATION PROCESS



The purpose of factor analysis is to group similar statements so that a manageable number of variables can be used for segmentation. The team picks a name for each factor based on correlations with various statements. The number of factors is also chosen by the team. Below is an example of a factor used in one of our studies.

A FACTOR: ENTHUSIASM FOR HIGH-TECH SOLUTIONS

Title	Representative statements	Correlation
High-tech solution	I believe that further improvements in telecom technology can substantially improve my business	0.76
	It is useful to get the latest phone equipment as soon as they are available	0.60
	A better phone system will give my company and advantage over my competition	0.55
	It is very important for my company to use telephone lines to transit data	0.51
	Access to internet is very useful for my business	0.45

Segmenting based on the factors resulted in four segments.

RESULTS OF ATTITUDINAL SEGMENTATION





IMAGE MODELING

What is it?	Analysis, based on one-on-one interviews, based on consumer's ratings of brands on image elements
When do you use it?	When image is a key issue When objective is to model changes in image When objective is to link to a conjoint to model pricing
How do you do it?	Identify relevant image elements Conduct interviews in which consumers rated evoked brands on overall preference Identify segments based on image of brand most preferred* Simulate market impact of changes in image
What do you get out of it?	Quantitative measurement of value for each element The ability to conduct what if simulations to test likely acceptance of image/price configurations (if combined with a conjoint/choice) Brand maps
Approximate cost	\$75 to \$400 per interview
Approximate time	To design/start up: 4-6 weeks To conduct interviews: 3-4 weeks To analyze/interpret data: 4 weeks

* Usually using factor and cluster analysis

Image modeling is based on overall brand or company ratings, specific attribute ratings for brands, and importance ratings.

COLLECTING DATA FOR IMAGE MODELLING: FINANCIAL SERVICES EXAMPLE

Ratings for each company/brand	Does not describe at all	1	2	3	4	5	6	7	8	9	10	Describes very well
Is full service												
Is easy to contact												
Is easy to understand communications	1											
Has poor quality pape	erwork											
Importance ratings	Not at all important to me	1	2	3	4	5	6	7	8	9	10	Extremely important to me
Is full service												
Is easy to contact												
Is easy to understand communication	I											
Has poor quality pape	erwork											
Overall company rating	Poor company/ never use it	1	2	3	4	5	6	7	8	9	10	Excellent company/ my favourite company
Company A Company B												
Company C												
Company E												

The attributes can be mapped into, in this case, two dimensions: modernity and quality. Dimensions are named by team.



Companies or brands are projected onto the map based on ratings.



Consumer segments can be projected based on needs/attribute importances.



Changes in images can be modeled to estimate changes in market share in order to evaluate strategic options.



CONJOINT ANALYSIS: A BRIEF DESCRIPTION

What is it?	Analysis, based on one-on-one interviews that force consumers to tradeoff between products that contain different sets of features
When do you use it?	When pricing is a key issue When purchases are made with careful consideration When decisions are driven by tangible product features When tradeoffs are made during the decision making process
How do you do it?	Identify relevant product/service attributes Define specific levels for each attribute Conduct interviews in which respondents make tradeoffs Identify segments with similar tradeoffs Simulate market impact of changes in product offerings
What do you get out of it?	Quantitative measurement of value for each attribute The ability to conduct what if simulations to test likely acceptance of any product/price configuration
Approximate cost	\$75 to \$400 per interview
Approximate time	To design/start up: 4-6 weeks To conduct interviews: 3-4 weeks To analyze/interpret data: 4 weeks

Respondents reveal their preferences for attributes by reacting to fuller product bundles.

CONJOINT DATA COLLECTION IS SERIES OF TRADE OFFS

SIMPLIFIED



From these trade-offs, importance can be inferred and used to drive segmentation.

IMPORTANCE FOR EACH ATTRIBUTE

Percent



With these importances understood by attributes and level, then predictions can be made on how respondents would react to changes in product offerings.

DEMAND CURVE FROM CONJOINT SIMULATIONS

ILLUSTRATIVE



These simulations can be used to scope or frame the market.

FORECAST MARKET DYNAMICS



Issues

- Will competition retaliate?
- Which competitors would be most affected by client's increases?
- Does competition have a lower cost base to fight price war?
- Does competition have skills to implement?
- Is there a competitive market advantage that could preempt or block client?

DISCRETE CHOICE ANALYSIS: A BRIEF DESCRIPTION

What is it?	Respondents trade-off several fully defined products, sometimes against a "non" option
When do you use it?	When price is a very critical issue with two to three other tangible product features When needs-based segmentation is not important
How do you do it?	Define specific levels for relevant product/service attributes Conduct interviews in which respondents make tradeoffs Simulate market impact of changes in product offerings
What do you get out it?	Quantitative measurement of value for each attribute The ability to conduct what if simulations to test likely acceptance of any product/price configuration
Approximate cost	\$75 to \$400 per interview
Approximate timing	To design/start up: 4–6 weeks To conduct interviews: 3–4 weeks To analyze/interpret data: 4 weeks

Discrete choice asks the respondent to make a choice from a broad competitive set that is much like what actually exists in the marketplace.



Discrete choice creates detailed demand curves by evaluating consumer response at different prices.

HIGHLY ELASTIC DEMAND FOR SIZE A BELOW \$1.89 Dollars

DISGUISED



* Past 52 weeks average retail price

Note: Total brand, not size, contribution used to account for size cannibalization impact

Source: Nielsen; market research; contribution model

Analyzing sources of volume shifts can reveal critical information about consumer behavior. In the example below, Scenario 1 decreases Brand A's Size Z (a glass container) price by 20% versus the base case. The scenario reveals a glass loyal segment as the source of Size Z's share gain of 3.5% is disproportionately from other glass SKUs (primarily Brand A's Size X and Private Label Size X).

DETAILED SWITCHING PATTERNS/SOURCE OF VOLUME INDICATE SIZE/FORM LOYALTY Share of ounces Percent



Private label

ILLUSTRATIVE



- * Plastic
- ** Glass
- Source: Nielsen; discrete choice, market research; contribution model

PROBLEM DETECTION

What is it?	Study to understand the root causes for why customers defect
When do you use it?	When customer retention is low
How do you use it?	 Define a very detailed tree of defection drivers Ask respondents for specific reasons for leaving Have respondents weight the different reasons Segment respondents based on these weights
What do you get out of it?	 Quantify frequency and importance of specific reasons for defecting Understand link between retention and profits
Approximate cost	\$50 to \$150 per respondent
Approximate timing	10–13 weeks

The purpose of the lost-customer survey is to uncover the root causes of customer defection, using a short (15-20 minute) telephone interview

PROBLEM DEFECTION SURVEY FLOW



- · Probes beyond top of mind reasons for leaving
- Captures breadth and depth of reasons
- Captures multiple defection reasons
- Measures importance of each reason in customer's defection decision
- Allocates 100 'importance points' across multiple reasons
- Business profile
- Usage information
- Account information (appended from customer files)

Below are examples of the defection drivers identified by the indepth interviews. These formed the basis for the quantitative questionnaire design



The quantitative questionnaire used a set of highly detailed logic trees to identify the reasons for defection

DEFECTION LOGIC TREE (PARTIAL TREE)



ILLUSTRATIVE

Priorities for improvement efforts were primarily identified using a matrix of importance of reason vs. frequency of reason being mentioned. An illustrative example is shown below

DEFECTION RESEARCH ANALYSIS



Frequency defection reason is mentioned, %

- Work to fix high frequency, high importance reasons
- Consider options for fixing second tier reasons
- High frequency, low importance
- Low frequency, high importance
- Do not spend time on low priority reasons (low frequency, low importance)

As a second step, detailed information in the survey results was used to pinpoint specific retention improvement opportunities and, using the customer economics model, estimate the cost/benefit of making the improvement. An illustrative example is shown below

DEFECTION ANALYSIS

reason importance, survey sample = 500 respondents, 100 defection points each

ILLUSTRATIVE



Simple example of cost/benefit analysis

Customer saved from quicker repairs

1,100 p.a.
X

Average lifetime economic value of each defector who leaves because of time taken for repairs

\$600 NPV
=

Gross opportunity value of fixing time taken for repairs

\$660,000

Cost of improving time taken for repairs

\$150,000
=

Net impact to long term profits

\$510,000

CUSTOMER SERVICE MODELING

What is it?	Hybrid conjoint analysis technique that identifies each customers service priorities
When do you use it?	 6 step process Qualitative research to define very detailed service attributes and levels (optional) Competitive profiles on service attributes Importance ratings Select 8-10 issues for each customer Tradeoff exercise Generate utilities
What do you get out of it?	Identification of key customer service breakpoints Ability to quantitatively analyze the value of alternative service scenarios when linked to a conjoint analysis
Approximate cost	\$75 to \$400 per interview
Approximate time	To design/start up: 4–6 weeks To conduct interviews: 3–4 weeks To analyze/interpret data: 4 weeks

Trade-offs reveal a customer's priority with specific aspects of service.

CUSTOMER SERVICE: TRADEOFF EXERCISE

Which of these aspects of service would you improve first? Second?



These trade-offs result in an understanding of the importance of the service buying factors. In studies where we have also conducted conjoint, these service factors can be linked to other buying factors.

RELATIVE IMPORTANCE OF MORTGAGE KEY BUYING FACTORS

KEY BUYING FACTORS

EXAMPLE

%



SERVICE KEY BUYING FACTORS



Service features can be arrayed by importance and saturation. Saturation measures level of service already offered in the market where high means that the current service offerings are already the best. Focus should be an important attributes with low saturation such as speed of making initial offer.

IMPORTANCE / SATURATION MATRIX - TOTAL SAMPLE

EXAMPLE



Increases and decreases on services attributes can be modeled to evaluate each's sensitivities.

IMPROVEMENT/RISK OPPORTUNITIES - BY ONE LEVEL

EXAMPLE

Utility Points



Source: Smart data

Changes to the overall service offering can be projected to market share changes to identify which will maximize profit contribution.

CUSTOMER SERVICE END PRODUCT EXAMPLE: MARKET SHARE PROJECTIONS

ILLUSTRATIVE

	100	100	100	100
Brand A	10	10	8	10
Brand B	35	40	42	34
Brand C	40	36	36	42
Other	15	14	14	14
(Current market	Brand B offers superior customer service	Brand B offers superior servi and quotes over the phon	s Brand C ce reduces processing e time by 30%

%

DESCRIPTION OF TOOLS – DIARY PANEL

What is it?	A panel of households who record purchases over time either in a manual diary, or with a UPC reading wand, or by handing a card to the check out person at the store. These panels exist in markets such as packaged goods, apparel, eating out, toys, and consumer electronics
When do you use it?	To understand the ongoing purchase dynamics of a category To provide a link between purchasing and households
How do you do it?	Data access is controlled by the research firm who operates the panel. We hypothesize and then work with the firm to construct a data request which they run
What do you get out of it?	 Examples of typical panel analyses: Purchase summary – category and brand penetration, usage, loyalty, price paid, percent sold on deal Demographic report – household demographics of different user groups e.g., Brand A buyers or Brand B loyal buyers Cross purchasing – share of one brand within the buyers of another – used to identify purchase interactions between brands Trial and repeat – measures the trial and repeat build up over time, typically for a new product Brand switching – decomposes the change in a brand's sales from period 1 to period 2 into new and lost category buyers, increased/decreased category consumption and brand switching
Approximate costs	Reports vary in cost from \$5,000 to \$50,000
Approximate timing	Typically 2-3 weeks

Cross purchasing analyzes what buyers of a particular brand buy.

EXAMPLE OF CROSS PURCHASING

MADE UP NUMBERS

		Coke	Diet Coke	Pepsi	Diet Pepsi
Share of requirements	Coke	50 %	15	25	10
	Diet Coke	10	60	5	30
	Pepsi	30	5	60	20
	Diet Pepsi	10	20	10	40
		100	100	100	100

BUYERS OF THESE BRANDS

- Buyers tend to buy mostly diet or mostly regular
 Pepsi and Diet Coke have the highest loyalty
 Diet Pepsi buyers buy almost as much as Diet Coke which indicates a machine. indicates a problem