DECISION MAKING

I. Recall that there are different "types" of decisions, from habitual to complex.

II. The basic framework we will consider breaks up the process into stages: problem recognition, search for information, evaluation and choice, and outcomes and feedback.

III. Problem Recognition - how do consumers recognize there is a problem or opportunity?

A. Sources of problem recognition
   1. Inventory runs out
   2. Family life cycle
   3. New needs - ads/new products can stimulate
   4. Changing reference groups
   5. Dissatisfaction
   6. Boredom, novelty seeking

B. Marketers try to simultaneously make the problem salient and provide a potential solution.

IV. Information Search

A. Consumers often search for limited amounts of information
   1. Surveys show that for durables 1/2 look at only one store, only 30% look at more than one brand for appliances. Does this necessarily mean consumers are uninformed or irrational? No - it doesn't take internal search (memory) into account.
   2. Consumers often consider that only a limited set of options are real alternatives for them at any point in time. This set is called the consideration set or evoked set.
      a. The consideration set is typically 3-4 brands, but the size varies by category, culture (e.g., <3 brands for beer in US, roughly 7 in Canada; 2 car options in Norway, > 8 in the US).
      b. Top of mind awareness is often crucial in getting a brand into the consideration set, especially for low involvement.
      c. Strategies for getting a brand into the consideration set:
         i. Repetition to increase top of mind brand awareness
         ii. Specific reminder ads (V-8; think of _____ when buying ____; compare ____ to ____)

B. How much information will people search for?
   1. One major factor is the amount already known - Bettman and Park (JCR, 12/80, 234-248) showed an inverted U relationship (low knowledge don't know enough to search a lot, experts with high knowledge don't need to search and can be very selective, moderate knowledge consumers search the most).
   2. Costs vs. benefits is the most common framework used
a. Costs - effort/time, delay - immediacy of need, money, psychic - get decision over
b. Benefits – savings can result, satisfaction/better performance, psychic - feel more thorough & easier to justify that one did a good job, reduce risk
c. The internet can lower per unit search costs – what are the effects? A simplistic analysis would argue that lowered search costs should increase price competition. For differentiated products, however, Lynch and Ariely (Marketing Science, Winter 2000, 83-103) show that decreased search costs can reduce price sensitivity for unique items and increase customer satisfaction and retention.

3. "Information elite" - higher income, education, holds across many countries.
4. Consumers also engage in ongoing search for categories of interest

C. One can also examine detailed patterns of search (e.g., the sequence in which information is examined, how long items of information are examined) using such techniques as monitoring eye movements
   1. Use in designing web sites
   2. Eye movements and shelf design, ad design

V. Evaluation of Alternatives

A. Basic notions
   1. Consumers tend to use subjective perceptions (beliefs) about attributes and their importances. This information is not always complete across all options.
   2. Consumers have limited processing capacity.
   3. Therefore, they often use simplifying tactics to make their choices.

B. Constructive/contingent processing
   1. Consumers’ choices vary depending upon the properties of the decision task, the social context, and individual differences.
   2. People’s choices are often made up or constructed on the fly rather than by following some predetermined procedure (especially for new or unfamiliar choices).
   3. People’s preferences are not fixed or given as assumed in economic theory. Rather, preferences are also constructive:
      a. People’s predictions of their future tastes are not accurate (e.g., how you will feel after consuming the same flavor of yogurt or ice cream several times). There is also evidence for a durability bias – people overestimate the duration of their emotional reactions to future events (e.g., outcomes of sports events, tenure decisions, moves, financial windfalls).
      b. People often overestimate their future consumption, especially if there is limited availability (e.g., Black Jack and other gums have higher sales when availability limited to several months per year than when they were offered year round).
      c. People have a hard time predicting their desire for variety. Simonson
(JMR, 5/90, 150-162) showed that people who have to choose snacks for a week at a time choose more variety than people who choose once a day.

d. People's evaluations of experiences are also constructed; in retrospect, evaluations of an event are greatly influenced by the ending and the trend (whether the event got better or worse) (Carmon, Ariely, Zauberman).

e. Contingent valuations of the value of environmental goods (e.g., the value of clean lakes or natural habitats) are affected by moral concerns (what do I normally give for good causes), show embedding effects (people state they are willing to pay the same amount to clean one specific lake as they are to clean all lakes in a region, for example).

4. These factors imply that the context matters. What is made salient, how the set of options is structured, and so on can substantially influence choice.

C. In our own research (Bettman, Luce, and Payne, JCR, 12/98, 187-217), we have used a choice goals framework for understanding how people select choice strategies (how they decide to decide). We consider four main goals for choice: maximizing accuracy, minimizing effort, minimizing the experience of negative emotion, and maximizing the ease of justification.

1. For any particular decision situation, there are often strategies that maintain relatively high performance, yield significant effort savings, and perform well on the emotion and justification goals.

2. People trade off accuracy, effort, and the other goals

3. We analyze specific situations and try to predict what sorts of strategies people will use.

D. Strategies are affected by a variety of factors characterizing the decision situation and/or the set of alternatives:

1. Number of alternatives

   a. As the number of options increases, people first eliminate some options from consideration, usually using some sort of screening rule (if it doesn't have X, eliminate it).

   b. Tradeoffs and comparisons occur on the smaller set remaining after options have been eliminated.

2. Format

   a. Consumers often tend to process information the way it is displayed (concreteness), because information is easier to process without transforming it.

   b. More generally, if it is important to have consumers process information a certain way, you can structure the information so as to make the desired processing as easy as possible.

   c. Suppose you wanted people to focus on price, particularly unit prices. Russo (JMR, 5/77, 193-201) did a study in San Diego Safeway stores. He argued that

      i. Regular unit price tags are hard to process if you want to compare many alternatives.
ii. Unit price lists make it much easier to compare
iii. Savings of 11% resulted from the new format.
iv. But for nutrition, such lists did not work for vitamins, only for sugar. People felt that they did not need to worry about getting enough vitamins by selecting particular foods – they could just take a pill. They were more worried about avoiding bad foods. In order for such information to have an effect, it must influence both consumers’ ability and motivation to process.

d. Suppose you want to encourage comparisons to other brands. This is normally not easy (information is often arranged by brand, all brands not available at once, etc.), but you can do it in an ad or on the package (e.g., Zee paper towels had an advantage on sheet count, so they put a table comparing sheet count with other leading brands on the plastic wrapping for the towel roll).

e. Suppose you want consumers to be more aware of warnings on hazards.
   i. We have developed principles for design of warning labels (e.g., using format to make warning information more salient, using common information organization across brands, using symbols, putting information on risks and strategies to avoid them in close proximity, providing information in comparative formats).
   ii. OTC antacids – in testimony I gave to the FTC, I argued that different ways of communicating to consumers were differentially effective for different purposes: motivate consumers to examine the warnings in the ad, use a list in the store, use a common format on the label to encourage comparisons - concept of a labeling system
   iii. P&G’s use of packaging and label design to make prescription drugs easier to understand, get more patient compliance

f. What is the effect of having default options in describing your choice alternatives (e.g., for computers)?
   i. Consumers anchor on the default option, don’t adjust enough (an instance of the general anchoring and adjustment bias)
   ii. Higher defaults (e.g., loaded options that you subtract from versus a base model that you add to) yield higher prices and more options added for the selected alternative (Park, Jun, and McInnis, JMR, 5/2000, 187-202)
   iii. But the higher initial list price for the loaded option may detract from attracting people to considering the brand
   iv. How price is updated can also have an effect (e.g., Dell – only when you ask for an update – vs. IBM – updated as you add an option)

g. Issues
   i. How do you decide what sort of processing to encourage?
Depends on whether you have an attribute-based advantage or an image-based advantage, for example. If you have an attribute-based advantage, encourage comparative processing by attribute. If you have an overall, image-based advantage, encourage separate, brand-based processing.

ii. How can you encourage a particular type of processing? We have tried above to show examples of using format to do this.

3. Time pressure
   a. Our work has shown that increased time pressure is best handled by processing information on all alternatives for a small set of attributes rather than processing all or most attributes for a few brands (Payne, Bettman, and Johnson, Journal of Experimental Psychology: Learning, Memory, and Cognition, 7/88, 534-552).
   b. Eisenhardt (Academy of Management Journal, 9/89, 543-576) found this was also true for companies that performed well in "high velocity" (many changes, environmental uncertainty) environments - they explored more options in less detail.
   c. Consumers also have more general strategies for coping with time pressure (e.g., preferences for environments where processing is easier or for time-saving products)

4. Non-comparable choices
   a. Definition - choices among alternatives from different categories - e.g., vacation vs. stereo.
   b. Strategies include more abstract comparisons, because the attribute sets are often different.
   c. Our work shows you can make these more like regular choices by priming specific criteria that can be used across the options.

5. Context (Simonson article)
   a. You can often increase the choice of a given option by including a less favorable option.
      i. Williams Sonoma bread baker – a bread machine selling for $275 experience much higher sales when a model priced 50% higher but without superior features was added to the catalog.
      ii. Consider two conditions in a choice experiment: Cross pen vs. $6 (36% chose pen), Cross and inferior pen vs. $6 (46% chose pen).
      iii. These are examples of the more general phenomenon of asymmetric dominance, when one option is clearly better than another but conflicts with a third option. The argument is that the dominance relationship provides a good reason for choice. The effect is stronger the more the need to justify is invoked.
   b. Added features can make product less desirable if they are not seen as relevant by the consumer:
      i. Pillsbury with plate option, Fuji film with umbrella option - shares
decreased by 13% on average.
ii. Added features on calculators, high tech products also caused
decrease if consumers did not feel they would use them.
c. Favorable word of mouth can even hurt if the reasons for being positive
are irrelevant to the consumer (Simonson - college choice).
d. Preference reversals - there are many, many demonstrations of how
different response modes lead to different preferences (e.g., A is
chosen over B, but people are willing to pay more for B than for A).
e. Separate evaluations vs. comparisons (Hsee and Leclerc, JCR, 9/98,
175-186) – if you have two or more attractive options, each is
evaluated less favorably when options are presented simultaneously
and compared than if each is evaluated separately (comparison
makes relative “losses” from choosing one versus the other more
salient – see the section on loss aversion below).

6. Regret
a. Consumers for whom possible feelings of regret were made more
relevant were more likely to
i. Choose to buy on sale now rather than wait for a better sale.
ii. Choose a higher-priced good (they would regret getting lower
quality if they chose a lower-priced good and it was of
lesser quality to a greater degree than if they wasted
money by choosing the more expensive good and finding
out it was of no better quality than the cheaper good).

b. Regret can play a role in response to waiting lines (“I always choose
the wrong one”), an advantage for single lines

7. Framing and loss aversion
a. Decision makers are often loss averse; they are more sensitive to
losses than to gains.

b. If consumers frame their decision as one where they gain something
but have to give something up, then they will tend to focus on those
losses.

c. Sometimes it helps to not have a natural standard for consumers to
compare against - e.g., "light" versions of regular products often
get reactions like "the slightly lower fat and calories isn't worth the
loss in taste". Some products have been successful where there
is no regular version of the light product and hence no natural
basis for comparison - e.g., Ben & Jerry's frozen yogurt (success)
vs. Ben & Jerry's ice milk (failure).

8. Emotion and choice
a. Choices that involve potentially difficult tradeoffs can be very
emotionally wrenching (e.g., care for the elderly). Kour work
shows that individuals respond by taking more time but avoiding
tradeoffs (Luce, Bettman, and Payne, Journal of Experimental

b. Different types of attributes can be more/less emotional to trade off
(e.g., more “sacred” (love, lives) vs. more “profane” (money)
attributes).

9. Use of decision delegation or decision aids
a. Use of ‘bots’ or intelligent agents on the Internet
b. Use of elimination strategies (see http://www.point.com for a cell phone example)
c. Use of “personal shoppers.” Giving information to the agent may again be an issue (recall the discussion of disclosure issues earlier)
d. What would an ideal consumer choice aid look like on the net?
   i. There are many types available (e.g., personallogic.com).
   ii. H@bl and Trifts (Marketing Science, Winter 2000, 4-21) show that a recommendation agent using cutoffs, weighted scores, and a quota for the number of options helps with screening alternatives and a comparison matrix helps with final choice.
   iii. Issues of trust are critical (reputation managers – see www.epinions.com)

D. These sorts of effects and the notion of constructive preferences/decision making imply that you should arrange the context, format, and so on to make desired processing more likely.

E. Measuring preferences – If preferences are constructive and vary depending upon all of the context and other factors described above, how does one measure preferences? (Payne, Bettman, Schkade, Journal of Risk and Uncertainty, 12/99, 243-270)
   1. When prediction is the goal, you context match (duplicate the major features of the task consumers will face.
   2. When design is the goal (e.g., valuing environmental goods, some aspects of really new products), you can help consumers consider multiple objectives and options, use extensive pretesting, design formats carefully, use manipulation checks, provide tools to encourage tradeoffs, use multiple methods and triangulate, and use sensitivity analysis.