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The 4 Minds of the Customer: A Framework for Understanding and Applying the Science of Decision Making

Ryan Hamilton and Uma R. Karmarkar

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Report Summary

Suppose a retailer with a reputation for high quality and great service, but also high prices, is selling a bike for \$350. What does the science of decision making say about how customers will react to this price?

- Research on reference points would say that customers have an expectation of how much bikes like these should cost, based on their own previous experience.
- Research on transaction utility would say that people adjust their reference points based on where they are shopping. Thus, people would come in *expecting* to pay more, and evaluate prices from that perspective.
- Research on “halo effects” would say that a customer’s overall impression (for example, “this store is expensive...”) extends over his or her evaluations of a specific element of that setting (“...therefore this particular price is probably expensive.”).

In other words, well-supported scientific theories of decision making often conflict with each other, with marketing implications that point in different directions.

Here, Ryan Hamilton and Uma Karmarkar develop a “4 Minds” framework as a diagnostic tool to help managers to identify which area of decision-making research is most likely to apply to their firm, market, and customers. They group the last 50 years of research on judgment and decision making into four broad categories describing different decision mindsets: Ideal Point, Market Comparison, Local Comparison, and Image. Each is characterized on two dimensions: type of evaluation and points of comparison.

The Ideal Point Mind uses the customer’s perfect (hypothetical) option as the point of comparison for evaluating any option under consideration. It is a subjective type of evaluation made in comparison to an internal reference point. This customer would choose the alternative that is closest to his or her ideal point.

The Market Comparison Mind relies on evaluations of individual attributes based on internalized reference points developed through experience or research. The chosen option would be the one evaluated as most attractive relative to what else is being sold in the marketplace, where attractiveness is determined by comparing the objective performance to the internal reference points.

The Local Comparison Mind makes comparisons among just the set of options under consideration at that moment. These customers use external reference points and make objective evaluations. Options that are attractive relative to what else is on the store shelf would tend to be chosen.

The Image Mind relies on overall impressions to guide specific attribute evaluations. A customer in this mindset uses external reference points and makes subjective evaluations. The option

chosen would tend to be the one benefiting from the most favorable reputation or general impression.

Managerial implications

The 4 Minds framework can inform specific segmentation, targeting, positioning, and persuasion approaches. At the same time, it is important to recognize that customers may shift between mindsets and that marketing efforts may need to appeal to multiple decision-making minds when simultaneously trying to appeal to different target segments in terms of positioning and persuasion.

Walmart, for example, combines an Image mindset approach with a price-focused marketing strategy designed to work with Local Comparison customers, in particular with those that are price sensitive.

In another example, the 1990 Nutrition Labeling and Education Act (NLEA), which required all packaged foods to carry the Nutrition Facts label, assumed that customers make eating choices from a Market Comparison perspective. More successful policy making might combine this with the Image mindset that characterizes most consumers and the Local Comparison mindset evoked by the specific “menu-based” context choices.

Overall, the 4 Minds framework can serve as a diagnostic tool to help identify which clusters of decision-making research are most likely to apply in any given situation. By learning how these decision-making minds differ—and the factors and environments that precipitate each—marketers can better anticipate and serve their intended customers.

Ryan Hamilton is Associate Professor of Marketing, Goizueta Business School, Emory University. Uma R. Karmarkar is Assistant Professor of Business Administration, Harvard Business School.

Introduction

Success in business ultimately comes down to successfully understanding how people—whether customers, investors, or employees—make decisions. This knowledge helps companies anticipate which choices will be preferred, and nudge people toward certain options and away from others. Fortunately, there are decades of rigorous research on decision making to aid you. Unfortunately, when taken as a whole, this research can look like an impenetrable, tangled mess.

For example, suppose you manage a retail outlet with a reputation for high quality and great service, but also high prices. Right now, you're selling a bike for \$350. What does the science of decision making say about how your customers will react to this price?

Research on reference points will tell you that your customers have an expectation of how much bikes like these should cost, based on their own previous experience. They'll have some idea of what similar bikes are going for at other retailers and so the fact that they are seeing that price at your store in particular won't matter. This research suggests that whether customers are shopping at your high quality store or at the discount warehouse across town, the comparison of the shelf price to their reference price is what will drive their decision making. So if a customer brings a reference price of \$350 with her to the store, your price will be viewed as perfectly acceptable: not a deal, but not a cheat either. Since the price is right at her expectation level, the science predicts she'll buy, even if she's not that enthusiastic about it.

Hold on, though, because that's not all that science has to say. Research on transaction utility tells us that people adjust their reference points based on where they are shopping. So in your high price, high quality store, people come in *expecting* to pay more, and they evaluate prices from that perspective. If a customer is expecting to pay about \$350 for this bike, in general, she'll adjust that expectation up when shopping at your upscale store. As a result the shelf price of \$350 will actually be evaluated *more* favorably at your store than the same price would be at a discount vendor, where she would expect a lower price. In other words, she'll not just buy, she will be happy with the exchange, because she was expecting to pay more.

Complicating things further, there is a third body of research on “halo effects.” Halo effects are a type of bias, in which the “halo” of a person’s overall impression (“This store is expensive...”) extends over his or her evaluations of a specific element of that setting (“...therefore this particular price is probably expensive.”). This research predicts that \$350—or really almost any price you offer—will be evaluated *less* favorably at your store than it would be at a bargain-basement vendor. People assume the prices at your store are high, and so will treat the price of this bike as high. The science in this case predicts that the customer will likely not buy, expecting that she’ll be likely to find a better price elsewhere.

Here then, science is telling us that a given price could be evaluated more, less, or equally favorably at two different stores with different reputations for prices. And that’s before we consult other work on subjective expected utility theory or prospect theory or the findings on context effects or framing effects or reason-based choice... the list goes on like this for a while.

Ultimately, what you as a manager need to know is *which* of these theories you should use. Unfortunately for you, a cagey scholar will always reply: it depends. The findings on reference points, transaction utilities and halo effects are all “right.” In fact, all are supported by decades of research. But none of them is an accurate description of what all people do all the time. It, well, it depends.

This is a problem. And it’s not an isolated one. Well-supported scientific theories of decision making often conflict with each other, creating perfectly reasonable managerial suggestions that point in opposite directions. You’d be forgiven for just throwing up your hands and ignoring all of it.

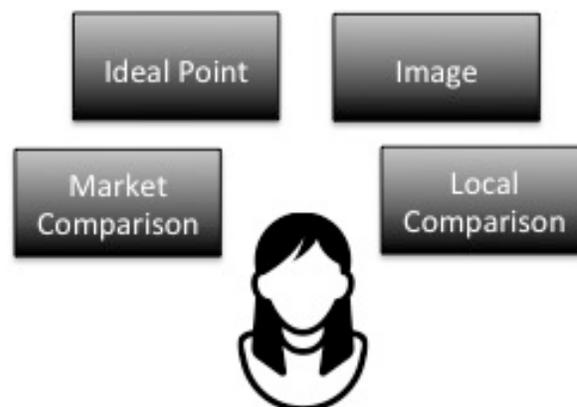
In this paper, we outline what we hope is a better approach to just ignoring the science because it is too complicated. We have developed the 4 Minds framework to serve as a diagnostic tool, helping you to identify which clusters of decision-making research are most likely to apply to your firm, your market, and your customer.

The 4 Minds of the Customer

For all the brilliant, robust, generalizable theories that have been developed to explain human decision making, there are none that apply all the time, for everyone, in every situation. It is true that some of these theories will be accurate in a greater number of settings, than others. But it is rarely useful to implement changes based on which set of theories is more accurate *on average*. You want to know what to do *here*, in your setting, and *now*, with your customers.

The 4 Minds framework does just that, explaining which theories are most likely to apply in a given setting. We have grouped the last 50 years of research on judgment and decision making into four broad categories of theories, describing four different approaches that your customers could bring to bear on any particular decision.

In this section, we profile each mindset: Ideal Point, Market Comparison, Local Comparison and Image. As we will discuss later, it is possible to use the 4 Minds framework as a segmentation tool—that is, to treat some people as being one kind of decision-maker, and another group as a different kind of decision-maker. But when trying to understand the 4 Minds, it is important to recognize that these decision-making mindsets are not fixed. We all shift between them as the demands of the decision change: These 4 Minds exist within all of us.



The Ideal Point Mind

Sometimes customers know *exactly* what they want. Maybe they have lots of experience making decisions just like the one they're facing. Or maybe they've given the matter plenty of thought, and devoted plenty of time to extensive research and reflection. These customers approach the decision with an ideal, perfect option in mind. Such ideal options are may not be "the best" in any objective sense, rather they are a subjective ideal that best matches that customer's preferences at that point in time. Every alternative the customer encounters is judged in comparison to this ideal and the option that is ultimately selected is the one that comes closest to matching it.

For example, when people go looking to buy a dream house, they often enter the market with a detailed fantasy already firmly in mind—the style, the size, the amenities, the location, the price, etc. That particular dream house, of course, likely exists only in dreams. But the prospective buyers will evaluate each home they encounter by comparing it to the dream. While nearly all real houses will fall short, whichever one comes closest will ultimately be chosen.

Interestingly, the research that best applies to understanding the Ideal Point Mind relies on "rational" choice models, including the subjective utility models preferred by economists. According to these theories, people make decisions that maximize their subjective utility. And they do this by choosing the options that are closest to the maximum hypothetical utility they could possibly get from this decision—in other words, from the house that comes closest to their dream house.

Ideal Point theories have also been invoked to explain firm pioneering effects (Carpenter and Nakamoto 1989). The idea is that the first entrant into a market defines what that offering *should* be. So, if Coca-Cola is the first cola many customers ever try (as happened in the first few decades after the beverage was launched), then those initial experiences help create an ideal point for colas. When competitors come in, they may be seen as inferior or second-rate substitutes to the pioneer.

Customers can obviously only use this decision making mindset when they actually *have* an ideal point for a given decision. This usually requires some level of experience, expertise, and/or motivation. Thus an ideal point mindset is likely to arise in decisions that are made with some regularity or decisions that are especially important to the customer. In addition, complex decisions involving many important attributes that require tradeoffs are also likely to be made relative to Ideal Points. And because Ideal Point decisions can involve a lot of comparing attributes and negotiating trade-offs, it is usually a rather involved and resource-intensive way of making choices. As such, it is less likely when consumers are distracted or rushed.

The *Ideal Point Mind* uses the customer's perfect (hypothetical) option as the point of comparison for evaluating any option under consideration. It is a subjective type of evaluation made in comparison to an internal reference point. The alternative that is closest to this ideal point is the one that gets chosen.

Prototypical decision: Dream house

The Market Comparison Mind

Sometimes customers start the decision process by figuring out what is available in the marketplace, particularly in terms of attributes that seem most important. Their expectations may be a result of direct experience, research, or word-of-mouth, but they generally reflect the performance of a real subset of options currently available on the market (as opposed to reflecting an idealized, hypothetical option). When customers activate this Market Comparison mindset, they evaluate options relative to these market-derived expectations when making their decisions.

For example, if someone is buying a new digital camera, she might start by looking at the existing offerings and then doing some research to figure out just how many megapixels are standard nowadays, what optical and digital zoom ranges seem to be available, and what prices are reasonable. Armed with this information, this shopper can evaluate any particular camera she

encounters by comparing each of those important attributes with her market-based expectations of what those attributes should be.

The Market Comparison Mind is supported by research on reference point comparisons, including reference price models. The way people make almost any kind of price evaluation, from the attractiveness of the number of megapixels to the reasonableness of a price, is by comparing it to some reference standard. When that standard is constructed using information about competing offerings, the result is a Market Comparison style of decision making.

Research tells us that when customers use a Market Comparison Mind, they will be loss averse (with losses looming larger than gains) and will show diminishing sensitivity to changes farther from the reference point (Kahneman and Tversky 1979). A customer with a Market Comparison Mindset is likely to be especially sensitive to feeling like they are getting a good deal or are getting ripped off (i.e., will be influenced by transaction utility; Thaler 1998).

Given the natural limitations of memory and attention, Market Comparison decisions will tend to focus on just a few key and/or common attributes, rather than on a thorough comparison of every dimension. Market Comparison decisions will also tend to favor quantitative attributes like price, horsepower, and megabytes—those that are easy to compare to a reference point—rather than qualitative attributes like brand, luxuriousness, and handling.

The use of a Market Comparison Mind(set) is likely to arise when customers have well-defined reference points. Thus, Market Comparisons are more likely in categories where customers make frequent purchases, for decisions in which customers have done some prior research, and in categories where advertising focuses extensively on performance on a few key attributes (e.g., megapixels on digital cameras).

The *Market Comparison Mind* relies on evaluations of individual attributes (e.g., price, screen size, horsepower, cubic feet, gigabytes) based on internalized reference points. A customer's reference points (e.g., \$10, 17 in., 130 hp, 8 cuft, 128 GB) are generally developed through experience or research. The chosen option is the one evaluated as most attractive relative to what else is being sold in the marketplace, where attractiveness is determined by comparing the objective performance to the internal reference points.

Prototype decision: Digital camera

The Local Comparison Mind

Sometimes when making a decision, all that matters to consumers is the options that are in front of them at the time of choice, whether that set of options comes in the form of a restaurant menu, a store shelf, or a set of search engine results. When customers use a Local Comparison Mind, they are more interested in choosing the best of what is immediately available than they are in choosing the best option possible.

For example, when faced with the temptations in the grocery store checkout aisle, a customer rarely wonders, "What is the best possible snack I could have?" More likely, the customer suddenly finds himself wanting a treat and asking, "Which *of these* candies seems most appealing right now?" The ideal chocolate could be a mere two aisles away, but in this choice, those other options are largely irrelevant.

Research on how customers use their Local Comparison Minds has received significant attention in popular work on behavioral economics and choice architecture (Ariely 2008; Kahneman 2011). The entire body of research on what are called "context effects" is based on a Local Comparison approach to decision making, examining the biases that can arise from comparing options within a specific choice set (Simonson and Tversky 1992). For example, if most of the options a customer is considering are red, then the customer might naturally be drawn to the one blue option, simply because it is different. And that uniqueness can become a reason for choosing it. Not necessarily a good reason, of course, because it is entirely dependent on what

may be the completely arbitrary composition of the choice set. But a reason that is powerful enough to influence the outcome.

One robust finding that results from Local Comparison decisions is based on the natural human tendency toward extremeness aversion (Simonson 1989). People tend to gravitate toward moderate options. Anecdotally, many restaurants report that their best selling wine is the *second* cheapest option on the menu. This tendency toward moderate or middle options is known as the “compromise effect:” an option will be more attractive when a more extreme option (generally higher price or lower quality) is added to the set. The compromise effect suggests that if you want your premium option to sell better, you should add a super-premium option to your offerings.

Local Comparison decisions are common—but not ubiquitous. They tend to happen when customers do not have well defined preferences or clear reference points, and so instead look to the local context for guidance. This means that Local Comparisons will be more likely in categories where customers have little experience or are not motivated to (or able to) inform themselves well. The other decision-making Minds can apply to both choice sets and to evaluating single options in isolation. Not so with Local Comparison decisions: context effects require a context. Shoppers can really only use a Local Comparison mindset when they have a set of options presented to them.

The *Local Comparison Mind* depends on comparisons among just the set of options that the customer happens to be considering at that moment. Thus these people are using external reference points and making objective evaluations. Options that are attractive relative to what else is on the store shelf will tend to get selected.

Prototype decision: Candy in the checkout aisle

The Image Mind

Sometimes the most important driver of a customer's decision is not the specific performance of an option on any particular attributes, but instead the customer's general impression of the option. Image Mind decisions occur when a choice is based on a manufacturer's reputation for reliability, or on a customer's perception that the prices at a particular store are low, or on the general impression that a service provider is trustworthy.

For example, some customers have a very strong preference for a particular brand of bottled water. They will claim that their preferred brand tastes better, that it is crisper or cleaner or more refreshing. They will seek out that brand over all others and may complain or even refuse if offered a bottle from a competing brand. And yet, the history of blind taste testing (including tests conducted by neuroscientists; McClure et al. 2004) overwhelmingly suggests that without the label, most of these people wouldn't be able to pick their favorite brand out of a line up if their lives depended on it.

The research that explains Image Mind decisions is mostly derived from work on halo effects (e.g. Nisbett and Wilson 1979). This research shows that people tend to form general impressions of something (a person is intelligent; a brand is high quality; a store is expensive) and then use that general impression to guide specific evaluations of that thing (this person is likely to know which laptop is best; the new offering from this brand is likely to perform well; this particular price at this store is likely to be expensive).

When making Image decisions, ambiguous or neutral information is likely to be interpreted as consistent with the overall impression. For example, research on price image (Hamilton and Chernev 2013) suggests that when customers do not have a clear reference price for a particular offering, they are likely to interpret a given price as consistent with the price image of the store. As a result, when using an Image Mind, the exact same price for the exact same product may be evaluated as low if it is encountered at Walmart, but assumed to be high if it is seen at Whole Foods. Even more pernicious, contradictory evidence can be reinterpreted to be consistent with the image: On the occasions when Whole Foods charges objectively low price, customers using

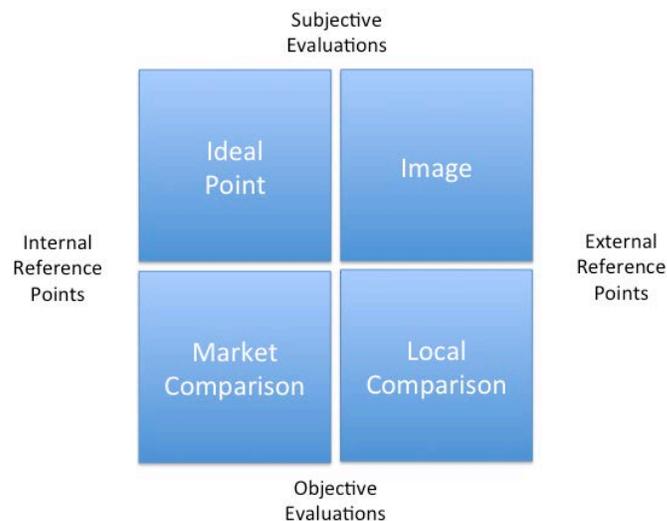
an Image Mind don't update their opinions of the prices at Whole Foods. Instead they are likely to simply interpret that low price as high, because that is the store's reputation.

Image Mind decisions tend to feel easy, and so are favored by customers making unimportant or low-engagement decisions. For this reason, the Image Mind is also favored when customers are distracted or pressed for time. Because using the Image Mind will result in decisions that are, on average, less accurate than some of the other decision making Minds, customers will typically opt for another mode of decision making when one is available. So, for example, if consumers have an accessible ideal point, or market-based reference point, or a local context to rely on, they will typically forego Image-based decision making.

The *Image Mind* relies on overall impressions to guide specific attribute evaluations. Using a brand's overall reputation for high quality to infer that specific attributes related to quality are also likely to be good would result in an Image decision. A customer in this mindset is using external reference points and making subjective evaluations. The option chosen is often the one benefiting from the most favorable reputation or general impression.

Prototype decision: Bottled Water

These four decision mindsets, Ideal Point, Market Comparison, Local Comparison, and Image, can be characterized by two dimensions: the type of evaluation they rely on and by the points of comparison they employ.



Some approaches to decision-making largely rely on subjective evaluations, that is, evaluations that are made relative to subjective criteria. The ideal point that a customer forms may or may not be the best option as assessed by an independent and unbiased expert, but it is the ideal option for that particular customer. Likewise, the image impressions that customers form may be objectively wrong, as happens when customers sometimes incorrectly infer that one store's prices are reliably lower than another's.

In contrast, other decision-making mindsets rely primarily on objective evaluations: Does this computer have more or less RAM than that one? Is this price more or less than the market average? Both Market Comparison and Local Comparison Minds tend toward these more objective evaluations when making decisions.

The other way to characterize these decision Minds is by the standard of comparison that is used when making a choice. Some Minds rely on references that are largely internal to the customer. For example, this occurs when people use an internalized expectation, as happens under Market Comparison, or when people use an internally generated Ideal Point to make evaluations. An alternative is to look outward, focusing primarily on the information that immediately available. When making evaluations, this might be information about the local context (Local Comparison) or about the general reputation or status of the options (Image).

These 4 decision-making Minds can also be arranged along an effort/accuracy continuum. In general, the goals of minimizing effort and maximizing accuracy in decision making are in conflict. There is no free lunch when it comes to making choices: scrimp on effort and you increase the likelihood of making a worse decision.

4 Minds by Effort and Accuracy



In general, Ideal Point decision making is the most effortful. It involves the most time and the sometimes difficult work of developing one's own preferences. For this reason, the Ideal Point Mind is also the most likely to result in a decision that is optimal—from the standpoint of giving the customer what he or she will be most happy with in the long run.

Market Comparisons can require effort—in the form of research or experience—in order to implement. But these comparisons return generally accurate assessments of options relative to what else is available. Local Comparisons are easier than Market Comparisons, relying just on the information immediately in front of the customer. Accuracy declines concomitantly.

The easiest and least accurate way of making a decision is by relying on a general image, impression or reputation to make evaluations, instead of assessing each attribute individually. An illustrative example arose when one of your authors was shopping with his wife at Costco. As the happy couple passed the dairy case, he reached to get a gallon of milk. His wife stopped him.

“Don’t. It’s cheaper at Kroger. I’ll get it there in a few days,” she said.

“What? That’s crazy. This is Costco. It must be cheaper here,” he replied.

“Nope. I know how much it costs at Kroger. It’s cheaper there.”

Your author was using an easy Image Mind to make his purchase decision: Costco has a well-earned reputation for low prices in general. Therefore this particular gallon of milk was also likely to be low priced. His wife was using a more effortful, more accurate Market Comparison mind. She had a reference price based on paying attention to the prices at other stores.

Using the 4 Minds Decision Framework

The 4 Minds is a categorical framework to help you apply the most relevant theories to understanding, anticipating, and influencing your customers' decisions. In this section, we offer guidance in how you can provide the right kind of information to reach both the customers you

have and the customers you want. Specifically, we'll explain how the 4 Minds can be applied in segmentation, targeting, positioning and persuasion.

Segmentation

Standard segmentation procedures group potential customers according to demographic or behavioral characteristics. More enlightened marketers segment by value, going beyond how people look and act, and grouping them by similarities in what they want. The 4 Minds framework goes one step farther, considering what customers value together with how they will make their purchase decision.

Consider the following example. Suppose you manage a retailer that sells televisions, including a 55" Sony model offered at \$629.99. Your customers could make their purchase decision in any of the following ways:

- **Ideal Point Mind:** For my life and lifestyle, I know I need a 55" screen, with 4 HDMI inputs, and 1920 x 1080 full HD at about \$650. How well does this TV measure up to my ideal TV?
- **Market Comparison Mind:** After looking around, I know that 55" are moderate-sized screens, in terms of what is available now and I expect prices for high quality TVs of that size to be around \$650. Those are the two most important things to me, and I will evaluate this TV based on how well it succeeds on those two attributes.
- **Local Comparison Mind:** Comparing the TVs available here, at this store, I see options ranging from \$400-\$1000, from 4 different brands. How does this 55" Sony option compare to those?
- **Image Mind:** What is Sony's reputation for quality? How expensive do I consider this store to be, in general?

Here, the 4 Minds can be treated as four potential segments, who will make decisions in four very different ways. Knowing this will lead you, as a manager, down different marketing paths. For example, if you are selling to Ideal Point customers, you had better do your market research.

It will be vital for you to know exactly what your key customer segments are expecting in a TV—because your customers will certainly know what they want and judge accordingly.

For Image Mind customers, marketing actions like lowering prices, improving service, or stocking objectively better options from less-well-known brands would be counter-productive. Unless these actions create a radically different or unusual shift in consumers' perceptions of your business, Image Mind consumers are likely to perceive those new prices, service improvements, or quality improvements as still being consistent with the brand image regardless. In this case, effective marketing should involve building and communicating brand identity. Similarly, research on topics such as brand personalities and price image are going to provide you with the most seminal insights (Aaker 1997; Hamilton and Chernev 2013).

Contrast this with a marketing plan for a Local Comparison shopper. Here, designing the selection on display matters more. These customers will mostly be comparing one TV against another within the store. If your customers are coming in with a Local Comparison mindset, it would be useful to draw insights from behavioral economics research on choice architecture. For example, if these customers seem to be struggling with comparing their options, offering a set of televisions that includes a clear hierarchy of “good”, “better,” and “best” on a central and easily understood attribute like screen size might help them make their decision, even if the TVs vary by brand.

Targeting

If your firm already has a group of potential customers, the next step may be to determine which Mind or Minds best describe the customers you will try to appeal to. For example, how expert is your target customer in your product category? Experienced customers are more likely to have well-defined reference points and to have given some consideration to what they really want from your offering. This level of knowledge can encourage Ideal Point and Market Comparison approaches for making a decision. In contrast, inexperienced customers are more likely to rely on information that is available to them at the time they are making their choices, and are thus likely

to rely on a Local Comparison approach when considering items that are defined by easy-to-compare attributes, or an Image mindset in decisions when the options have compelling brands.

Characterizing a target customer segment by decision-making Mind is in no way limited to everyday grocery or packaged-goods shopping. This approach can also apply to occasional or big-ticket purchases. For example, the founders of the designer home goods retailer PIRCH took this kind of “deep dive” on their customers’ decision process. They used those insights to create the luxury value that drives their entire store concept. PIRCH describes itself as, “Kitchen. Bath. Outdoors. Joy.” A more pragmatic description might include that they sell mid-to-high end appliances and living spaces accessories, generally to homeowners.

The founders built their whole store around the recognition that their decision-maker wasn’t being served by big-box and warehouse retailers more attuned to the needs of Market Comparison and Local Comparison shoppers. Their target customer wanted to buy fridges, grills and washing machines in a way that went beyond just checking prices or spin cycles. Their customers saw these purchases as part of creating their desired lifestyle. In many ways, these are people who perfectly define the Ideal Point segment. They are generally well informed in the category and highly involved in what they see as an important purchase of a big ticket items. They are also managing several objective and subjective differences across alternatives.



Kitchen display at PIRCH’s flagship San Diego store. Appliances are often put to real use to allow homeowners an immersive experience.

PIRCH stores specifically cater to Ideal Point customers by encouraging them to imagine their life and their specific wants and needs, and to make choices based on this vision. So while they are able to offer multiple options at multiple price points, they additionally host their consumers through a decision process that focuses on their dreams and what's right for them. The founders consulted directly with researchers who examined personal expression through choice, emotion and immersion. They arrived at a retail experience that not only targets Ideal Point consumers, but creates them.

Targeting can also happen by channel, as some channels are more conducive to certain types of decision-making than others. A manager might ask themselves: Are people making this choice from a clearly defined consideration set, as happens at a physical retailer? Or are they considering one option in isolation and making a yes or no decision, as might happen when they engage in an online search? Is information provided in such a way as to make comparison between options easy—such as a Consumer Reports-style table? Or are attributes difficult to compare and evaluate, as when options are scattered across different stores or manufacturers' websites?

Knowing something about the type of information customers have to work with will give you some idea about what is more likely in terms of how the customer will make decisions. When a particular bit of information is easy to evaluate and compare across options, it is more likely to influence decisions. When many competing brands are promoting their offerings on the same attributes, it is more likely that customers will have reference points for those attributes and use those attributes in their decision making. When customers face a discrete choice set, like toasters on a store shelf or laptops on a manufacturer's website, it increases the chances of their making local comparisons—focusing just on the relative advantages and disadvantages of the options in front of them, and ignoring outside options.

Positioning

Like PIRCH, it is possible to create a business by identifying and defining a segment and then positioning the entire value of the product, or service, or store towards that underserved segment.

But it is also possible to improve the appeal of an existing firm by repositioning your value in a functional way to address a shift between decision-making segments over time.

Intel is a great example of a firm that successfully made this kind of shift. Intel had already recognized the importance of focusing on the B2C market, but, the messaging was largely designed to satisfy Market Comparison shoppers since PC's were seen in functional or utilitarian terms. So for many years, this conversation treated the decision as a high-minded, rational process, involving descriptions of technical specs like processing speed—reference points that were easy to compare between brands.

At some point, buyer behavior shifted. It became clear to the marketing group at Intel that new customers were increasingly buying computers to serve a wide range of lifestyle needs, rather than simply wanting to process spreadsheets faster. Customers wanted to buy the computers that provided a great experience, seamlessly integrating technology into their lives. This included streaming entertainment, increasingly sophisticated and cinematic games, social interactions, and even pathways to self-expression.

Shoppers had moved away from comparing a few functional attributes, as happens under a Market Comparison mindset, and were now more interested in identifying with the overall feel of the brand. They had become an Image segment, where their impressions about the brand and emotional connections to the products drove purchase. Intel had already created a recognizable “ingredient” brand name with weight. Around 2010 they began to associate this brand with art, music and creativity, focusing on an emotional connection emerging from what technology could facilitate for the customer, rather than the abilities of the technology itself (Forbes 2010; Intel 2011). This allowed them to better address the Image customers who were making up a larger percentage of the market they served.

Note that while Intel's shift in positioning allowed them to court new customers, their objective technological quality also allowed them to retain their base customer. Indeed, it is possible to position to actively appeal to multiple decision-making Minds when simultaneously trying to appeal to different target segments.

Consider the following: Walmart has carefully cultivated a low price image over decades. It seems safe to assume that the vast majority of Walmart customers are there because of the chain's iron-clad reputation for low prices. And the many Image Mind customers Walmart attracts will tend to evaluate the prices they encounter through that lens. Is this particular price attractive? Well, it's at Walmart, so it *must* be a low price.

But Walmart recognized that some customers, in some categories, don't rely just on an Image Mind when making choices. In particular, Image decision making is not always the most helpful when trying to decide among brands that all have a similar reputation for quality, all being sold in a store with a reputation for low prices. A shopper may find themselves wondering, which of pasta sauce to choose when they are all likely to be reasonably good and at a reasonably good price?

So Walmart cultivated a parallel, price-focused marketing strategy deliberately designed to work with Local Comparison customers, and in particular with those that were price sensitive. They implemented an aggressive good/better/best tiered pricing system designed around the principles of choice architecture: providing customers with reasons to choose one brand on the shelf over the others in that local set. By deliberately stocking certain brands at specific price points, Walmart was able to nudge Local Comparison customers towards certain pasta sauces that might fit additional decision goals of finding "the cheapest", "the compromise" or even "the top shelf" within the larger low-price context.

Persuasion

In general, a customer will be more persuaded by messaging that is consistent with the decision-making Mind they are using. It is never a safe bet to rely on the customer to translate one type of value into another. Marketers will always be more successful when they can match the messaging to the Mindset.

Consider the example of the public health officials, nonprofits, and regulators who have sought to reduce obesity rates in the United States over the past several decades. They have tried a number of different tactical approaches to tackling the problem. Most have simply not worked.

One early effort was the 1990 Nutrition Labeling and Education Act (NLEA), which required all packaged foods to carry the now ubiquitous Nutrition Facts label. This legislation's goal is stated by the FDA's own website: "The Nutrition Facts label helps consumers make informed food choices and maintain healthy dietary practices." Sadly, the initiative failed that goal. There was no decrease in obesity rates after 1990. They continued to rise—if anything, at an accelerated pace.

The implicit assumption that underlies the NLEA and related efforts is that customers make eating choices from a Market Comparison perspective. By this logic, when making food choices, people evaluate their options by comparing the food's attributes against a set of well-defined reference points, including those for calories, vitamins, and macronutrients. If that is indeed the Mind people bring to making their eating decisions, then more and better information is all they need to improve their food choices. Once people know how many calories or grams of sugars or milligrams of sodium are in a food, they'll realize how unhealthy it is and opt for something else.

But interventions around providing more and better information didn't change behavior because the underlying assumption was wrong. A Market Comparison process doesn't accurately describe how most people decide what to eat.

Indeed, outreach efforts based on appeals to other types of decision making have been more successful. The push to get calorie counts on restaurant menus, offers one example. At first glance, the Nutrition Facts labels and calorie counts on menus may seem consistent, with both providing more information to customers at the time of choice. But we argue that choices from a menu are more likely to result in a Local Comparison process. In this view, people are choosing from a given set of options by making comparing between what's available, rather than using a pre-set ideal or a set of reference points. In a Local Comparison context, publishing an easy-to-compare metric, like calorie counts, is more likely to influence choices. And indeed, while the

science on menu calorie counts is by no means settled, there is a growing body of evidence that compared to other public health initiatives, it has had some success (Bollinger, Leslie, and Sorensen 2011).

Unfortunately for public health advocates, there is also evidence that the intense focus on healthy eating that is the cornerstone of efforts to combat obesity, can have negative side effects for people who approach food choices from an Image mindset. Research suggests that people often evaluate foods qualitatively, creating an overall impression of the food, before making more specific evaluations of their options. The downside to this Image-based approach to evaluating foods is most starkly displayed in what is called the Negative Calorie Illusion. Research has found that adding a low calorie food, such as a side salad, to a high calorie food, such as a hamburger, can result in a lower calorie estimate for the combined meal than for *just the high calorie alone*. Because people make these evaluations from an Image perspective, they see the hamburger with salad as a *relatively* unhealthy meal, and interpret that as meaning that it has fewer calories than the (entirely unhealthy) hamburger by itself (Chernev and Gal 2010).

People also tend to underestimate calorie counts at “healthy” fast food chains like Subway by as much as 5 times more than calorie counts at “unhealthy” chains like McDonald’s (Block et al. 2013). Most frustratingly for those looking to improve the state of public health, the Negative Calorie Illusion is strongest for people who are most focused on the healthiness of their diets (Chernev 2011).

How can our understanding of the Market Comparison Mind assumed by policy makers, the Image Mind favored by most consumers, and the Local Comparison Mind evoked by the specific “menu-based” context help make better policy? One possibility is to create choice situations that make it more likely for people to consider healthy choices—for example, simply placing fruit in a more accessible place in a cafeteria can increase its consumption (Black 2010). As noted earlier, in cases where there are options that range significantly by calories within a local context, it may be helpful to offer calorie counts to give people objective information. It may also be possible to “recategorize” restaurants by different image standards, or to create impressions of “ideal meals” rather than ideal foods to chip away at the negative calorie illusion.

Finally, we can attempt to create a choice process that shifts individuals into more of a Market Comparison, with outside ideal points that meet desired health goals. Interventions such as the recent government-supported “my plate” (www.choosemyplate.gov) or the ½ Plate Vegetable Rule are following these general strategies.

Conclusion

“Theory” sounds like something that only academics should worry about, but in reality, there’s no avoiding it. If you’re not pulling from the best theories that science has to offer, you’re either ignoring your customers or using your own “gut theories” of human decision-making, which may lack the benefit of a broader view of the market.

The trick is in applying the right set of theories to the problem at hand and ignoring the rest. When you start with mistaken assumptions about how your customers are making decisions—whether those assumptions come from your gut or from a favored idea making the rounds—the wrong turns start to pile up.

Consider the recent, much maligned rebranding at JC Penney—or JCP as it was called in 2011. The large retail firm had a long history and a reasonably solid customer base, but was being squeezed out of a market that had reorganized around Target, Walmart, Gap, and other mid-priced apparel stores. To create a radical change, they brought on Ron Johnson, who had been the creative mind behind the design of the Genius Bar in Apple’s incredibly successful venture into brick-and-mortar retailing. Johnson applied some of the same principles to JCP, not only in terms of the design of the store, but in terms of their pricing. The new JCP did away with hi/lo price structures that revolved around coupons and deals, and instead introduced everyday low pricing (Ofek and Avery 2012).

The result was a terrible failure, leading to Johnson’s eventual departure. There have been several postmortem explanations for this fiasco. But let us add one more, from the perspective of decision science. Johnson’s implicit assumption was that JCP’s customers (or those they would be able to attract) would use the same Image-based decision strategies that had allowed Apple

stores to be so successful. Note that none of his decisions were incorrect or inappropriate in their own right. Indeed for a strong centralized brand like Apple, these strategies were quite successful. However, the JCP customers were likely from an entirely different decision-making segment.

The bulk of JCP customers appear to have been Local Comparison deal-seekers. They sought out bargains—where the bargains were determined in no small part by the higher regular-priced merchandise on the surrounding racks and the “marked down from” tags festooning the offerings. By switching to an everyday low pricing strategy, Johnson destroyed the ability of these Local Comparison shoppers to evaluate the worthiness of a deal. They turned away in droves. And the original brand perceptions were so strong that the firm was not left with enough time to convince new Image customers to sign on.

We constructed the Four Minds framework to help firms and policy-makers identify the types of theories, insights, and ideally strategies, that will best serve their goals. There are multiple paths to using this information—in addition to matching your customer segments with the individual profiles of the Minds, you can consider where your firm’s decision settings might fall in terms of the evaluation and reference point dimensions (subjective/objective; internal/external). Taken together these tools will help you wade through the overgrowth of theories developed by economists and psychologists to explain decision making, and focus on just those insights most applicable to your customers.

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