

---

# How Information Changes Consumer Behavior and How Consumer Behavior Determines Corporate Strategy

ERIC K. CLEMONS

ERIC K. CLEMONS is a Professor at the Wharton School, University of Pennsylvania, where he has served since 1976. His visiting appointments include Harvard University, Cornell University, Hong Kong University of Science and Technology, and the Indian School of Business. He serves on the editorial boards of the *Journal of Management Information Systems* and the *International Journal of Electronic Commerce*. His research specialties are in the areas of IT and business strategy and IT and financial markets. More specifically, he studies the impact of technology on consumer behavior, analyzing investments in strategic IT ventures, managing the risks of strategic outsourcing, managing the risk of strategic IT implementations, and strategic implications of e-commerce for channel power and profitability. He is the Director of the Wharton School's Sponsored Research Program in Information, Strategy, and Economics; the Area Head for Information, Strategy, and Economics; and program coordinator for the school's major in e-commerce. He also is the founder of the Hawaii International Conference on System Sciences' (HICSS) annual Competitive Strategy, Economics, and Information Systems mini-track, which had its twentieth anniversary meeting in January 2007, and the winner of two HICSS Best Paper awards.

**ABSTRACT:** Information availability has increased consumers' informedness, the degree to which they know what is available in the marketplace, with precisely which attributes and at precisely what price. This informedness has altered the demand side of market behavior: customers now discount more heavily when comparable products are available from competitors and when products do not meet their wants, needs, cravings, and longings, but they no longer discount as heavily when purchasing unfamiliar products. Changes in the demand side are producing comparable changes in the supply side: firms earn less than their expectations when competing in traditional mass-market *fat spots*, while earning far more than previously when entering newly created *resonance marketing sweet spots*. We trace the impact of hyperdifferentiation and resonance marketing on strategy, with a clear progression from a limited number of fat spots, through reliance on line extensions, and ultimately to fully differentiated market sweet spots.

**KEY WORDS AND PHRASES:** consumer informedness, long tail, marketing strategy, online reviews, resonance marketing, word-of-mouth marketing.

## Context

---

THIS PAPER OFFERS A MODEST CONTRIBUTION to marketing strategy, based on years of research into marketing strategy, pricing strategy, product design, promotion, and

the impact of consumer-generated content on consumer<sup>1</sup> purchasing behavior. The research that underlies this paper was conducted with faculty colleagues from numerous institutions, with consultants, and with experts in disciplines ranging from information technology to anthropology. This research suggests that information availability and the use of this information by consumers has so profoundly affected consumer purchasing behavior that all of the underlying premises of corporate strategy require careful reexamination.

In particular, slowly at first, but in an increasing range of product categories, changes in consumer behavior will alter the fundamental four Ps of marketing beyond recognition. The old four Ps [25, 27] assume that price, promotion, product design, and physical placement and distribution are largely elements of marketing strategy that can be determined by the firm. In many categories, this is now quaintly obsolete; pricing is determined by what the consumer is willing to pay, promotion is increasingly determined by online user-generated content, product design is based on filling gaps in the marketplace that correspond to strong consumer preferences, and physical placement is irrelevant because everything is available online from everywhere and to everyone.

- *Pricing* will be largely determined by the marketplace, by what the consumer knows, and by the context of competitive offerings. The New York Stock Exchange (NYSE) *discovers* prices for stocks through the confluence of supply and demand; no one at the NYSE can realistically expect to *set* the prices of NYSE-listed stocks at levels other than that which investors believe are fair and accurate trading prices. Orbitz does not set prices, but it enables the *real time online pari-mutuel mall* of air travelers to set prices, much as the crowd on the trading floor and the larger crowd behind it sets prices in financial markets.
- *Promotion* likewise is becoming organic and largely outside of a company's direct control; increasingly, promotion is determined by the reported experiences of other consumers. Where once marketing and advertising controlled a consumer's perception of a firm and the firm's image in its marketplace, consumers' access to online content, especially user-generated content and user-generated product reviews, is beginning to determine consumers' perception of a company and its offerings. This is particularly significant to the success of launches of superpremium and hyperpremium new offerings, where total market share is expected to be too small to justify traditional promotional efforts. Most of the most successful new beer launches, soft drink and premium ice tea launches, power bar launches, and highly successful high-margin new consumer product offerings in a wide range of categories have never been advertised and have never been formally promoted, and yet they succeed, largely on the basis of word-of-mouth and "word-of-mouse" promotions [35]. Most of the 500 top-ranked beers in the United States have never been advertised<sup>2</sup>; in a year in which Miller Brewing chose to focus on this attractive market segment, promotional expenditures were reduced by a third, while profits increased by the same amount [30].
- *Product* offerings will be determined less by what a company has always done well (e.g., Cheerios, Fig Newtons, or Budweiser) and less by near neighbors for

those old standbys (Honey Nut Cheerios, Raspberry Newtons, or Bud Light, Bud Ice, and Bud Ice Light). They will be determined more by consumers' strong preferences for unserved and underserved market offerings. That is, a firm's offerings will increasingly be determined by consumers' preferences and willingness to pay, and less by the firm's preferences, traditions, and existing competence.

- *Product placement* and physical distribution are becoming increasingly irrelevant. As Anderson [2] and Brynjolfsson et al. [7, 8] note, almost everything will be available to almost anyone, almost anywhere, using online distribution.

Much as changes in consumer behavior are forcing a revision of marketing strategy and the four Ps, the same changes in consumer behavior likewise are forcing a reevaluation of the range of applicability of Porter's work on the Five Forces that determine competitive strategy. Porter's Five Forces model [34] focuses on corporations, and specifically on the role of (corporate) suppliers, (corporate) producers of substitute products, (corporate) new entrants, and (corporate) competitors; only buyers may, for some companies, be individuals rather than still more corporate entities. Of course, Porter's work is not wrong; however, as we move to a world of truly informed and truly empowered individuals, the behavior of individuals becomes at least as important as the role of other corporations when determining corporate strategy. Individuals, their wants and needs, cravings and longings, current shopping patterns, and unmet latent preferences, will become as important to the determination of corporate strategy as a review of competitors and their current portfolios and prospective new offerings.

The premise of this paper is that there has been change in consumer behavior, the demand side of the market, which has resulted in a change in the competitive strategy of firms, the supply side of the market. And yet consumers' underlying wants, needs, and desires have not been profoundly altered; likewise, firms have not changed what they want to do, which is to maximize their profits. What has happened? We will demonstrate that a profound change has occurred, not in the objectives of firms or in the motivations of individual consumers, but rather in the information available to all consumers. The effortless access to timely and accurate information has enabled consumers to manage increased choices better than ever before; if what they want is available in the marketplace, they now truly can and will find it, and if the price is right, they will purchase it. Likewise, since for the first time consumers can find what they really want, for the first time it is now fully possible for firms to provide what consumers want, in all its myriad options.

The order of causality is clear: information is available and the marketplace is more transparent than ever before. Consumers can now optimize their choices. Firms can now optimize their selection of offerings. Consumer choice drives corporate selection, corporate selection drives consumer choice, and both are driven by greatly enhanced information. Firms have divided huge *mass-market* fat spots into highly resonating *mass-margin* sweet spots, and consumers find and pay for what they want.

By now we are all familiar with the *long tail* of distribution [2], which notes that retailers have greatly increased the set of choices available to consumers, and that more and more consumers are selecting items from among the least popular elements of the set. Not all selections are equally popular with consumers; fermented teas such as

Earl Grey or minimally processed green teas may not have mass appeal and Hawaiian peaberry coffee may lack the kick of Vienna Roast Colombian. Zappos offers 809 styles of performance running shoes and 367 styles of basketball shoes; the numbers drop to 698 and 349 for size 11 medium and plummet to 208 and 48 styles for size 15 medium. Baseball shoes are more popular than wrestling or volleyball (144 styles for baseball, 22 for wrestling or volleyball shoes), and all are more popular than rugby (one style of rugby shoe). Far more American consumers use dried cayenne pepper (heat level of perhaps 30,000 Scovilles) than use dried piquins (with a Scoville heat level four times hotter) although almost any pepper can now be located online with equal ease.<sup>3</sup> The long tail arises, in part, because although consumers can now find everything with equal ease, they make choices based on preferences that most definitely are *not* distributed equally. Where once we all selected from the limited selection we could actually find, we now select from all available options, and some choices simply are not as popular as others. This change in consumer purchasing behavior is not about *trading up*, or the sale of luxury goods [39]; it is not elitist, catering to the wealthiest, or about mass affluence and catering to the merely slightly wealthy [32]. It is about *trading out*, or the sale of goods that precisely match the wants and needs, cravings and longings of small groups of consumers. It is not about being better in any absolute sense; it is about being better *for each of your customers*. It is not about the long tail of distribution, but the long tail of informed selection.

This work focuses on the implications of selection and choice for all aspects of the firm's strategy, which have been redefined by the subtle but inexorable increase in information available to the consumer and to the firm. This change in information is so complete and so profound that we need a new word for it. Economists and game theorists talk about *information endowment*, or what players know at the start of a game; that term is too static for the degree of information immersion that we see today. Popular usage refers to *awareness*, but that does not capture the intensity or the intimacy that we need. *Informedness* in an online and wired world allows consumers to know everything they want to know about products and services of interest to them:

- What is available?
- At what price?
- Where?
- And with a precisely understood set of attributes.

Likewise, producers and retailers know at least as much as consumers, and this allows them to make an all-important inference about the unmet wants and needs, cravings and longings of the marketplace. In a world of wired informedness, consumers can find what they want if it is available, and firms can identify the unserved and under-served segments of the market and can address them with new offerings of goods and services.<sup>4</sup>

The origins of consumer informedness have been the subject of much discussion and debate. Some is no doubt due to the reduction in search costs [4]. Some comes from recommender systems and recommendations made to the consumer by collaborative filtering [35] systems used by retailers such as Amazon.com. And some informedness

comes from reviews posted on retailer Web sites such as [www.amazon.com](http://www.amazon.com), from online social networking community rating systems such as [www.ratebeer.com](http://www.ratebeer.com) or [www.tripadvisor.com](http://www.tripadvisor.com), or from third-party reviewing sites such as <http://wordofmouse.com> or [www.dpreview.com/reviews](http://www.dpreview.com/reviews) [10, 12, 16, 17, 18, 38]. The impact of community content on consumer behavior appears clear, even if monetization of this impact remains uncertain [12].

## Hyperdifferentiation and Resonance Marketing

THERE IS NOW MORE CHOICE IN THE MARKETPLACE than ever before. Supermarket ice cream now has not just more flavors, but more categories, including premium (Ben & Jerry's), superpremium (Godiva), and for those willing to search online even hyperpremium (Graeters).<sup>5</sup> Where once we ate candy bars when hungry, or power bars from PowerBar, we can now choose from several hundred power bar offerings. Power bars' manufacturers promise weight loss (Atkins) or muscle mass and weight gain (Next Nutrition), for men (Clif) or for women (Luna). Weight lifter power bars (Detour) would never be used in place of golf power bars (1st Tee), and indeed the slow energy release needed for a golfer on the first tee (1st Tee) would never satisfy the energy needs of a golfer rounding the turn (for which he or she would grab a 10th Tee). A single Web site ([www.allstarhealth.com](http://www.allstarhealth.com)) now lists over 80 low-carb bars and close to 500 nutrition and power bars. Similar data can be obtained on the number of ice teas, Ben & Jerry ice creams, Starbucks coffees, SUVs, breakfast fast foods, or, indeed, almost any consumer product or service.

The ability of firms to produce almost anything that any potential customer might want is called *hyperdifferentiation* [14, 15]. Hyperdifferentiation is more than just differentiation, line extensions, or varying the quality of information goods through versioning [42]. This is certainly more than the increased complexity of product portfolios as firms attempt to compete. Hyperdifferentiation is the ability to alter flavors in food and beverage products; vary parameter settings in software that supports service offerings; change colors or styles or options packages in consumer durables; or in some way develop, market, and sell anything the firm chooses to offer.

Hyperdifferentiation is enabled by information, and information allows hyperdifferentiation to generate unprecedented profitability. There is no point in offering new and unique products and services if your potential customers cannot locate them or do not know what they are. The Beeryard ([www.beeryard.com](http://www.beeryard.com)) is a small beer wholesaler in western Pennsylvania. Before the creation of its Web site, 90 percent of its sales were to customers within 10 miles of the store; that is, virtually all were within the store's local county. With the development of its Web site, it became possible for Web surfers to search The Beeryard for hard-to-find beers. One click gets them a list of recent arrivals, from the previous week, two weeks, a month, or two months. A second click gets them access to details on the brewer, the type of beer, and the brewer's description of this particular beer. One more click takes them to [www.ratebeer.com](http://www.ratebeer.com), a community of beer aficionados, where they can obtain reviews from dozens, or even hundreds, of reviewers. Yet another click enables them to examine an individual reviewer's reviewing

history, to determine if his or her impressions are likely to be a good predictor of your own. This Web site has profoundly altered the sales pattern and the profitability of The Beeryard. Although Pennsylvania state law does not allow beers to be sold and shipped out of state, it is legal for out-of-state shoppers to reserve beer online and to drive to Pennsylvania to buy beer; management of The Beeryard estimates that more than two-thirds of their premium beer sales now arrive from outside their 10-mile radius and more than one-third are from out of state, throughout the Northeast. Because rare beers suffer little or no competitive price pressure, the margins on an \$85 or \$120 case of beer are much more attractive than the margins on a \$17.95 case of Budweiser. It is important not to underestimate the power of the informedness generated by The Beeryard's Web site. Shoppers will not drive from Virginia to Pennsylvania unless they know the beers they are seeking are actually available and unless they are convinced that the beers are truly worth the trip.

The essence of *resonance marketing* is harnessing and guiding the supply side of hyperdifferentiation [13, 14]. Although the firm can now make *whatever the firm wants to make*, it is most beneficial to produce *exactly what the firm's customers want to buy*. It is technically feasible to make products that are so extreme that they have almost no appeal, such as beers that are too bitter, for example, or fuel-efficient cars with too little acceleration, or portable personal televisions with screens that are too small. It is also dangerous to assume that products are too extreme to sell because they have never sold in the past, as the runaway success of American superhopped India Pale Ales, Prius hybrid automobiles, or 5th-Generation iPod Video players has demonstrated. Consumer purchasing behavior truly has changed, and consumers truly are better off as a result [7, 8].

Resonance marketing requires understanding the demand side, so that the firm knows what each customer segment wants to buy, and how much each segment is willing to pay to get it. It is about achieving a precise fit not only with consumers' wants but also with their previously unsatisfied wants and needs, cravings and longings. It is about being uniquely better at giving the consumer what he or she truly has always wanted, and about reducing the role of price in the consumer's shopping decisions.

## Resonance Marketing's Whole New Mind-Set

---

RESONANCE MARKETING REQUIRES AN ENTIRELY DIFFERENT MIND-SET from producers and retailers than they have had in the past, and a high degree of confidence in, even passion for, their products. It is no longer sufficient to get the largest number of potential customers to *like* your product. For resonance products, a consumer's liking the product is not enough reason for the consumer to become a customer and to buy it; the consumer has to *love* the product to pay a premium price for it, and without love, your product becomes merely a commodity offering.

When Victory Brewing Company launched its first three beers in 1996, it started with Fest (in the style of an Oktoberfest), Victory All Malt Lager (its answer to the popularity of Budweiser, Miller Genuine Draft, and Coors Original), and Hop Devil (the brewmaster's personal favorite at the time). Victory had high hopes for the lager,

but was worried about the market response to its audacious Hop Devil. The lager is actually quite good, and everyone likes it; it scores an average rating of 3.4 out of 5 on ratebeer.com, and places in the ninetieth percentile of all lagers. Unfortunately, no one buys it; with its higher-cost ingredients and resulting higher price, consumers shun it in favor of the adequate and much less expensive offerings from the big three brewers. In the resonance marketing arena, being good enough simply is not good enough.

In contrast, the bitterness of Hop Devil is striking, as in, “Balance? We don’t need no stinkin’ balance!” In the IBU (International Bitterness Units) scale used to measure the bitterness of beers, Hop Devil is 400 percent as bitter as the average bland but popular American lager. In contrast to the generic hops used in Bud, Coors, and Millers, Hop Devil uses American Northwest Cascade hops, with strong flavors of orange peel, grapefruit, and pine tar. Most people when first exposed to Hop Devil immediately hate it, and many find that they need to spit it out. Few like it. But some love it, and those are Victory’s target market for this beer. Customers who loved Hop Devil could not find anything like it on the East Coast, and the \$28 price, nearly twice that of Budweiser, was irrelevant. The beer was an immediate hit, and although significant competition has emerged in the decade since it was introduced, and although Victory has greatly extended its line of beers, Hop Devil still accounts for 47 percent of Victory’s sales.

## Unrewarded Excellence and Consumer-Imposed Discounts

WHILE RESONANCE MARKETING IS REWARDING FIRMS that embrace it, firms that continue with a strategy of being good enough are suffering. General Motors is about to lose its position as the world’s largest car company to Toyota, and yet by any objective measure of quality, General Motors’ cars are better than they have ever been. It is just that Toyota’s cars are more interesting, and consumers are far more likely to be passionate about a Prius hybrid than about a Buick. Supermarket sales in traditional categories such as ice cream, coffee, soft drinks, and candy bars are flat, while sales have exploded among superpremium offerings in ice cream, bagged instead of canned coffee, all fruit smoothies (Naked) and premium ice teas and other noncarbonated beverages, and power bars. Specialty products offered by subscale upstarts that are positioned around the edges of major categories account for all the growth in some categories, such as coffee and soft drinks; in others, such as ice cream, the premium and superpremium brands now account for all the retailers’ profits for the entire category. Firms are losing to companies that did not exist until recently, selling products that they seldom if ever advertise, in categories that industry incumbents thought were too small to matter.

Why are growth and profitability stalling in the traditional middle of the market? The problem is that too many firms are competing for the same market *fat spots*, offering similar products, all with adequate quality, and all aimed squarely at the same huge concentration of consumers in the middle of the market. These products are easy to describe and aimed at the taste of the largest number of consumers. Since competitors

have chosen the same fat spots, and are offering similar products, targeted at the same group of consumers, brutal price-based competition has become the norm. And yet increasing numbers of customers are selecting highly differentiated products, which were aimed at small *sweet spots* around the fringes of the category. Increasingly, what these sweet spots lack in profitability due to small size they will make up through superior margins and through the larger number of sweet spot offerings provided; indeed, that is the intent of a sweet spot resonance marketing strategy.<sup>6</sup>

Why has consumers' purchasing behavior shifted so dramatically? Why are previously successful firms finding their strategies now ineffective, why are their profits declining, and why are they suffering from unrewarded excellence? The answer is that customers finally know—accurately and with certainty—what is available to them. The customer can now trade out, trade up, or trade down because the customer knows what he or she wants, knows what is available, knows where to find it, and knows what it costs.<sup>7</sup>

- For categories that do not matter to the customer, he or she is able to find the lowest possible price for an offering he or she considers adequate; the *competition discount* is as large as it has ever been. Thirty years ago a discounted airfare between Philadelphia and San Diego on United was close to \$500; with excess capacity and easy online price comparisons, the fare today is under \$400 on the same carrier, despite an 80 percent increase in fuel costs.
- The customer can find and can get exactly what he or she wants; the customer will no longer accept a product that does not fit his or her preferences unless it is substantially less expensive. With perfect information, the customer can determine which airlines fly into Heathrow, a modern airport relatively convenient to the West End of London, and which fly into Gatwick, with much older facilities, and requiring a train ride into a station, and then physically dragging bags off and hunting for a taxi. The customer may still be willing to fly into Gatwick, but he or she will insist on paying less for this. Perfect information and the increase in choice combine to make the *compromise discount* as high as it has ever been. We now see why merely being good enough is no longer good enough.
- Finally, and most importantly to the success of resonance marketing, the customer can find what he or she truly wants, and can determine what it truly is and what it truly offers. The customer knows what he or she is getting and knows that he or she is getting exactly what he or she wants, even for first-time purchases and even if he or she is not familiar with the product or its producer. The customer no longer feels he or she must pay less because he or she is no longer worried about whether he or she is getting a perfect fit with his or her preferences; now the customer knows he or she is getting a perfect fit and the *uncertainty discount* has been eliminated. (This last point is explained in more detail below.)

These changes are so profound they go beyond mere awareness, and become true *customer informedness*.

While small companies or small brands provide most of the best current examples of resonance strategies, there are enough examples of big company success, such as the

Toyota Prius or the Apple iPod, to suggest that resonance marketing will be essential to the profitability of all successful consumer product companies.

## The Theory—How Important Is Uncertainty?

IT HAS LONG BEEN KNOWN THAT CUSTOMERS' WILLINGNESS TO PAY for a specific product is determined both by their willingness to pay for their ideal product and by how closely the product they are considering matches or how much it deviates from this ideal. Hotelling [23], Salop [37], and others model the difference between a customer's ideal choice and an offering being considered as *fit*, shown by the distance between the customer's ideal selection and the actual offering. A greater distance between customer preferences and a specific product results in worse fit, and higher fit cost, which reduces the customer's willingness to pay for the offering. We can summarize this by saying the compromise discount simply measures the distance between the customer's ideal choice and the actual offering.

To make this concrete, consider a student preparing for an interview. His ideal choice might be a 42 regular blue pinstripe suit, represented by the central asterisk (\*) in Figure 1, with corresponding willingness to pay  $V$ , the maximum he will pay for any suit. The student would be less pleased with a gray pinstripe, and a gray 44 would require significant alterations, and both would greatly reduce the student's willingness to pay for the gray suit. In this figure, the horizontal or x-axis represents the set of all possible suits in some hypothetical and abstract suit-description space. Since all consumers will have different preferences, another student, taller, might prefer a larger suit, whereas a student with a different collection of dress shirts might prefer a different color. These other students would have their own asterisks located at a different point along the suit-description space, and their willingness-to-pay curves would peak over their own asterisks.<sup>8</sup>

The horizontal line  $X$  in Figure 1 measures the distance between the location of the first student's ideal suit (at the \*) and the 44 gray suit in the abstract suit-description space. The vertical bar  $C$  measures the reduction in the student's willingness to pay, caused by the compromise discount that results from the distance  $X$ . All suits can be located somewhere in their suit-description space, and differences among suits can be captured by their location in this space. Likewise, all consumers have an ideal suit, and therefore consumers can likewise be located somewhere in suit-description space by the position of their ideal suit. This works equally well when describing consumers' preferences for hotels, sports cars, or beer and coffee; products can be located in their product-category description space, as can consumers' ideal purchases. We have always known that fit matters, both in size and in consumers' preferences; none of this is new.

Capturing the effects that uncertainty has on consumer behavior has historically been too complex to model precisely. Indeed, it has been complex enough that most economists have not attempted to incorporate it into models of consumer choice; but because the reduction in uncertainty is one of the most important effects of the new network economy, it is essential that we at least express qualitatively the effects

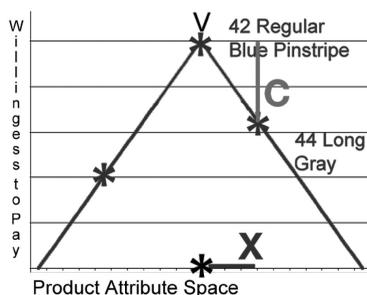


Figure 1. The Compromise Discount C Reduces Consumers' Willingness to Pay for Products with Poor Fit

of uncertainty reduction. Figure 2 shows a potential customer whose ideal product (still a blue pinstripe suit) is located at \*P, and who believes that the suit is *likely* to be located at \*P, but who believes that there is a considerable band of uncertainty concerning the *actual* suit that he will be shipped, as shown in the band of uncertainty centered around \*P. This potential customer *believes* that the first suit is most likely to be a 42 regular blue pinstripe, but has a considerable *range of uncertainty* (the dark bar) centered around its expected location. There is now a range of actual suits that he might receive; some will be a little too big, others will be a little too small, some may be a little too dark, and others may be a little too light. While this range still includes his perfect suit, it now includes some that are certainly not perfect. The range of suits has a range of values to him, and all of the values introduced by uncertainty are less than his ideal willingness to pay, V. The suit he actually receives may be as far to the left in *suit-description space* as Xl, or as far to the right as Xr. His willingness to pay for suits on the left side of the band of uncertainty is the average of the left side, that is, the average of the range Xl to V, or Xa, and his willingness to pay on the right side is the average of the right side, from V to Xr, also Xa. Consequently, his willingness to pay for the suit is reduced to Xa; even though the range is centered at the ideal position, the average over all suits in the range is less than V. This explains the size of the reduction in willingness to pay, or the uncertainty discount, the vertical bar U in Figure 2.

But how will uncertainty affect a potential customer's willingness to pay for products that he or she expects will be significantly less than perfect for him or her? Interestingly, uncertainty has no impact on consumers' willingness to pay for products that are significantly removed from their ideal product choices. Now consider a consumer C whose ideal suit would be located at \*C, as shown in Figure 3. This consumer has a different willingness-to-pay curve from that of a consumer whose ideal product would be at \*P, shown as the inverted V shifted to the right (relative to the original curve), with its peak over \*C. There is still a range of uncertainty, indicated by the bar of uncertainty centered around \*P, the expected location of the available suit. Thus, there is still a range of suits that the consumer may receive, each with a different value, and once again, the value the consumer places on the suit that he thinks he will get will be the average of the set of suits he might receive. Some suits in the range will be closer

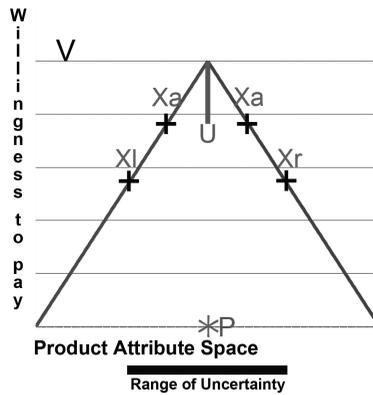


Figure 2. The Uncertainty Discount U Reduces Consumers' Willingness to Pay for Products Where They Have a High Degree of Uncertainty About the Product's Exact Set of Attributes

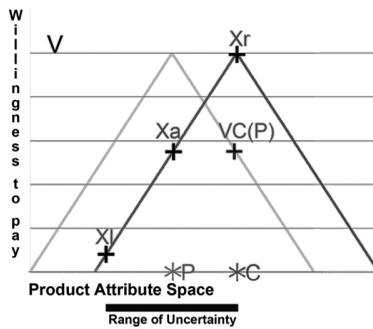


Figure 3. For a Product at \*P That Is Far Removed from a Consumer's Ideal Choice \*C, Uncertainty Does Not Affect the Consumer's Willingness to Pay for the Product at \*P

to his ideal than the suit at \*P and some will be further away. Some will have higher values to him than the suit at \*P and some will have lower values to him. The range of suits he believes he might receive is bounded on the left by Xl and bounded on the right by Xr; the average, Xa, is precisely the same as VC(P), his willingness to pay for a suit at \*P. For a product that is known to be far from ideal, moderate uncertainty<sup>9</sup> does not affect the value the consumer expects from the product that he expects to receive, willingness to pay is the same as willingness to pay for a product at \*P, and there is no uncertainty discount.

Working with Figures 2 and 3, we can derive a curve that illustrates the impact of uncertainty on the entire range of consumers considering an unfamiliar product that they expect will be located within a band of uncertainty centered at \*P. For consumers whose willingness to pay for a product at \*P would have been V, there is a significant uncertainty discount, shown by the drop from the upper inverted V-shaped curve to the lower inverted U-shaped curve in Figure 4. For customers whose ideal is located at or outside the band of uncertainty, uncertainty has no impact on willingness to pay for the product at \*P.

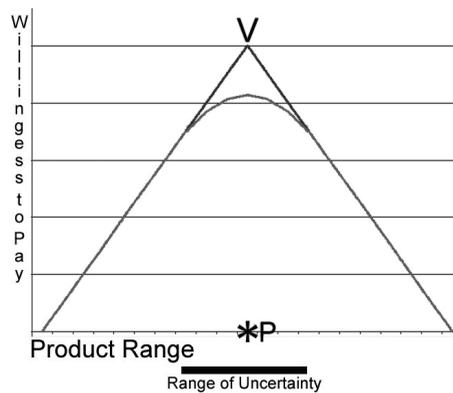


Figure 4. Consumers' Willingness to Pay for a Product at \*P Will Be Affected Differently by Uncertainty

This last point is significant because it explains how the uncertainty discount deflected incumbents and their mass-market fat spots. The only reason to introduce a new sweet spot offering is to attract customers who are currently unserved by available mass-market offerings, who will find that the new offering perfectly matches their unmet cravings and longings, and who willingly pay a premium price to get precisely what they want. Of course, by definition, new offerings are unfamiliar to most customers and would suffer from a large uncertainty discount, which would affect only and precisely those customers who would otherwise be willing to pay for the product. Historically, those mechanisms used to reduce uncertainty, principally promotional advertising accompanied by samples or discounts, are inappropriate for small sweet spot offerings.<sup>10</sup> Budweiser, Miller, and Coors invested so heavily in promotions that advertising became the single-largest cost in the production of beer; smaller companies could not compete, and industry consolidation raged. By the early 1990s, it appeared that these three companies would control the entire beer market in the United States. With the rise of informedness, craft brewers do not need to promote or advertise their products, the uncertainty discount has been reduced or, in other cases, has simply vanished, and the dynamics of brewing have been permanently altered. Similar effects are observed in a range of consumer products, where sweet spot offerings in juices and other soft drinks, coffees and teas, and power bars and other foods have succeeded without advertising.

### The Theory—How Has the Reduction in Uncertainty Driven Change in Strategy?

HISTORICALLY NO FIRM CHARGED ITS CUSTOMERS  $V$ , the maximum that any of their customers would be willing to pay for their product. With few exceptions (such as airlines practicing yield management), firms charged all customers the same price, and the profit-maximizing price was usually somewhere around one-half the maximum that

would be paid by anyone. (The proof of this simply involves taking a first derivative, as we all remember from a first economics course.)

So the firm set its profit-maximizing price and rolled out its mass-market fat spot offerings. The Industrial Revolution produced a market as we experienced for over a century; huge firms offering mass-market goods and services with minimal variation. Huge scale reduced unit costs, and low cost reduced prices, which in turn increased scale. Consumers had more cars, more clothing, and more food than at any time in human history. Restrictions were not always as draconian as Henry Ford's famous diktat, "the customer can have the Model T in any color as long as it's black," but abundance of products and services did not imply a wide selection or consumers' freedom of choice. Still, few consumers complained, since abundance without choice was a better option than scarcity without choice!

The scale-leads-to-scale factor was not the only driver reinforcing the power of mass-market fat spots. Offerings were centered in fat spots and through familiarity and repeated purchase customers developed certainty about these offerings. Goods and services competed principally through segmentation of the advertising message directing the same product to different groups of consumers, rather than through segmentation of the product design.<sup>11</sup> Moreover, if companies had tried to develop and promote sweet spot offerings, they would have failed; the uncertainty discount that their potential new customers would have imposed on their new niche offerings would have been lethal to their launch. The world of abundance, limited choice, and the power of mass-market offerings pushed through Madison Avenue promotion was formed.

This is illustrated in Figure 5. A new product has been introduced at the asterisk (\*) shown in the middle of its product attribute space. Consumers are equally spread along this product attribute space, and consumers' willingness to pay once again is based on the distance between their location and the product's location at \*. Without an uncertainty discount, consumers close to the \* would have high willingness to pay and consumers far from the \* would have lower willingness to pay, as depicted by the inverted V centered about the \*. Unfortunately, for new product launches, the uncertainty discount was always large. The maximum reached by the uncertainty discount associated with introducing a new product was U, which was large for the customers for whom the product would have been ideal; the overall collapse in customers' willingness to pay can be seen from the inverted flattened curve under the higher inverted-V-shaped one. The complexity penalty associated with trying to add to the product line was M, which was also large. Consequently, there is no profit-maximizing price. The profit-maximizing price P that the firm would have charged without the complexity penalty is actually lower than the complexity penalty M; indeed, there is no potential new customer whose willingness to pay is greater than the incremental cost the firm incurs by introducing this new product. In brief, it would have cost the firm far more to add new products than the firm could have earned by selling them. Consumers' lack of information, and the resulting uncertainty discount and reduction in willingness to pay, reduced innovation, new product introduction, consumer choice, and the profitability of innovative firms.

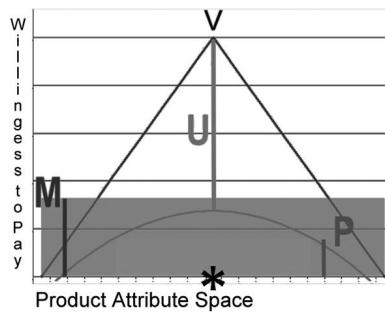


Figure 5. The Uncertainty Discount  $U$  Reduces Consumers' Willingness to Pay for Unfamiliar New Products, While the Complexity Penalty  $M$  Makes Introducing Them More Difficult and Expensive Compared to the Firm's Expenses with a Simpler Product Line. The Profit-Maximizing Price  $P$  That the Firm Can Charge, Given the High-Uncertainty Discount, Is Less Than the Complexity Penalty.

## Incipient Complexity Management and Line Extensions

By the mid-1970s, companies had learned to manage at least moderate complexity. Inventory management software was emerging, even if it lacked the power of today's online tools, and factory scheduling software was developed, even if the plants it managed lacked numerically controlled machinery coordinated with plantwide local area networks. Of course, the uncertainty associated with launches of truly new product offerings could still be lethal.

Line extensions were born in part to deal with the uncertainty discount. If the firm can manufacture one form of oat ring, it can learn to apply a flavored surface coating to make other varieties. If consumers trust Cheerios, then presumably they can quickly learn to trust Honey Nut Cheerios, along with Berry Burst, Yogurt Burst, MultiGrain, Fruity, Frosted, and Apple Cinnamon Cheerios. If the firm knows how to encrust fig paste in a cookie dough to make Fig Newtons, then it can make Fat Free Fig Newtons, Whole Grain Fig Newtons, and a host of other fruit Newtons such as Strawberry and Raspberry Newtons, and if customers trust the Newton brand, then the extended family should not suffer from an extreme uncertainty discount. A host of other manufacturers, in categories from soft drinks to automobiles and kitchen appliances, rapidly followed with their own line extensions.

We can see this graphically in Figure 6. Firms now introduce numerous line extensions because the uncertainty discount  $U$  is so small, the complexity penalty  $M$  is so small, and the profit-maximizing price is attractively high. Where once a consumer at a particular location  $*C$  could contemplate only one purchase from the firm, the consumer can now consider more alternatives (Figure 6 shows only two). Where once the firm could have extracted the profit-maximizing price only from its customers who liked basic Cheerios or Fig Newtons, it can now extract this price from a wider range of customers, including those who want sweeter Cheerios or lower-fat Newtons.<sup>12</sup> The reasoning is simple: a consumer at  $*C$ , for whom the product on the left represented

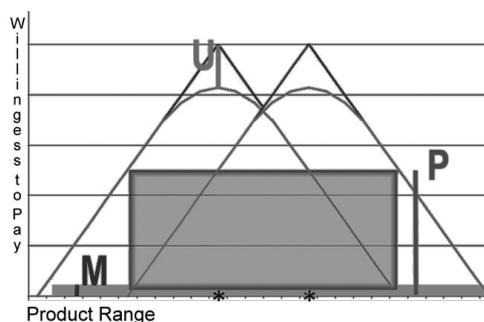


Figure 6. The Uncertainty Discount  $U$  Has Almost No Impact on Consumers' Willingness to Pay for Familiar Line Extensions. The Complexity Penalty  $M$  Has Limited Impact on the Cost of Introducing Them. It Is Profitable for the Firm to Introduce a Wide Array of Line Extensions and Sell Them at the Profit-Maximizing Price  $P$ .

a significant compromise, is now delighted with the product on the right. In fact, the firm can now introduce an array of related products, each separated from its neighbor by the small gap between the asterisks in Figure 6. The gap between product offerings is small precisely because they are line extensions; the separations among Pepsi, Diet Pepsi, Pepsi Lime, and Diet Pepsi Lime would not be large. Importantly, since they are extensions of a long-standing and familiar product line, the uncertainty discount associated with any one of them is quite small, which is why  $U$  is small, and we have explained above why the complexity penalty  $M$  is small. Finally, since extensions mean that the firm can appeal to more consumers who are not compromising, the firm can charge its profit-maximizing price  $P$  for a wider range of consumers.

## Full Complexity Management and Sweet Spot Marketing

*Sweet spot* marketing and high margins are replacing fat spot marketing and scale in some industries, especially in grocery retailing, where sweet spots account for almost all of a store's profits. The power of addition, taking high-margin profits from one sweet spot after another, has exceeded the power of multiplication and of taking profits from only one large low-margin fat spot. Firms can pursue resonance marketing strategies, enabled by customer informedness. Firms have learned to manage complexity in production, distribution, sales, and marketing [20]. And firms do pursue these strategies, allowing them to earn high margins by providing whatever the customer wants.

We can see the power of sweet spot resonance marketing graphically in Figure 7. Firms now introduce numerous innovative products, addressing any and all unserved and underserved market segments, because the uncertainty discount  $U$  is so small, the complexity penalty  $M$  is so small, and the profit-maximizing price is attractively high. The firm is not restricted to line extensions, to small improvements in its offerings that exploit its brands and customers' familiarity with them; the firm can serve any market that it can profitably develop, innovation and creativity are more fully rewarded, and the gap between offerings can be arbitrarily large.

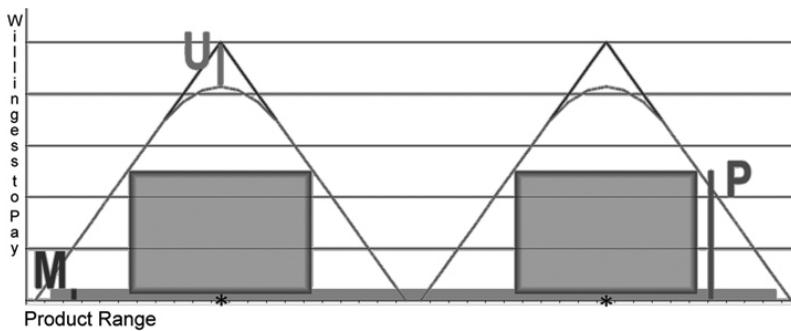


Figure 7. The Uncertainty Discount  $U$  Now Has Almost No Impact on Consumers' Willingness to Pay for Products. Likewise, the Complexity Penalty  $M$  Is Now Minimal. Firms Can Introduce Products to Exploit Any Sweet Spot They Identify, and Can Develop Products to Meet Unserved and Underserved Market Segments.

### In Summary—The New Product Strategies of Resonance Marketing

It is now possible for firms to design and launch new offerings for those customer segments most willing to pay for what they want. Recent work by Steve Barnett, an anthropologist trained in ethnographic observation, provides useful insights on exactly how firms can determine what consumers want, need, and crave, and how firms can locate unserved and underserved market segments [6].<sup>13</sup> Historically, the most demanding customers, those most willing to pay for what they want, also imposed the greatest discounts in the presence of uncertainty, and historically new offerings always suffered from uncertainty. Fortunately, with online *word-of-mouth* information reducing uncertainty [16, 35], firms' ability to launch new premium offerings has never been better.

### Impact of Informedness on the Four Ps

INFORMEDNESS, HYPERDIFFERENTIATION TECHNOLOGIES, and resonance marketing collectively change all of the four Ps of marketing—price, product, promotion, and physical distribution [25, 27].

### Changing the Role of Price

Informedness and transparency require a change in pricing strategy. This is seen as a move from a single fixed profit-maximizing *price* to a family of dynamic pricing strategies. This was first seen in pricing based on differences in customers' cost to serve and other aspects of customer desirability. This has been practiced in life insurance and property and casualty insurance since the development of actuarial tables, and has become common in credit card issuance. Pricing categories based on customers' willingness to pay for quality, or vertical segmentation, were introduced, such as the versioning of rail travel as early as the nineteenth century based on class of service. Next, dynamic pricing strategies were developed, such as yield management and congestion pricing.

These were first pioneered by airlines and now extended to hotels, and even to toll roads and center city regions. The next round of innovations in pricing were based on trying to capture different individual customers' different willingness to pay, leading to name-your-own-price strategies such as Priceline.com. Resonance marketing is simply the latest means of exploiting improved transparency; in this case, developing mechanisms that allow customers to maximize their own delight from their purchases while increasing companies' profits. As noted, customers now know more about available offerings and are willing to pay more for perfect fit, and companies can now implement highly refined differentiation strategies based on horizontal positioning.

### Changing the Role of Promotion

The fragmentation of markets into numerous small sweet spots makes promotion extremely difficult to perform in a cost-effective fashion. Today, a product that hopes to capture 1 or 2 percent of the market cannot justify undirected mailbox stuffing, requiring far more analysis and far more targeting than is possible for most new product launches. Organic informedness, informedness that develops through customers' experience and their sharing of this experience online, is replacing most attempts at creating informedness based on widespread distribution of samples.

As organic informedness begins to replace traditional advertising, controllable push-based corporate communication is replaced by uncontrollable discussion among users, and by online communities and user-generated ratings. Consumers just know what is available, and what they know may not be what manufacturers want them to know!

Eventually, these three trends may actually kill push-based advertising. Search is improving, from key words to counting Web crawls, and from Web crawls to understanding the context and intent of the user's query. Search drives pull-based product selection, and eventually pull replaces push and informedness replaces single-directional push-based promotion.

### Changing the Role of Product

The increasing complexity of *product* mix is readily observed and has already been noted. This explosion in choice is largely driven by improved customer informedness. Informedness enables producers, service providers, and retailers to exploit extreme differences in customers' preferences, creating extreme differences in customers' willingness to pay. In brief, delight-based product mix is replacing simpler product design strategies. This change is based on resonance marketing and hyperdifferentiation, and thus it is critically tied to informedness and pricing.

### Changing the Role of Physical Distribution

Online distribution now allows for almost universal access for some products such as information goods; this is the central thesis of Anderson's [2] view of the long tail effect. Traditional *placement* and physical distribution strategies are being replaced

by far more complex alternatives with far more complete ranges of offerings. The online impact and ability to enable long tail retailing is slightly more complex for other product categories, but it still has a large impact on products that are shelf stable, easily described, and easily sold online.

### A New Fifth P?

Perhaps there is a new fifth P, effortlessly informed pursuit of *perfection*, that drives the changes in the first four Ps. This new P describes the fundamental change in consumer behavior; it is the driver of the changes in the traditional four Ps, as firms must now react to newly empowered consumers.

### The New Generic Strategies

RESONANCE MARKETING HAS PRODUCED THREE new generic strategies. The first, and the most traditional, is the continuation of mass-market fat spot strategies. Established fat spot brands use their market share for cost control, and exploit their brands to protect their price. There are indeed still some brands that can accomplish this. For example, Tide detergent has defended its position, enhanced by the fact that detergent is not a material expense in most households. More importantly, perhaps, the continuation of two or even three generations of Tide use is strengthened by the fact that we all wish to believe our parents loved us, that they used a detergent that was best for our safety and health, and we, of course, owe our children no less. To compete effectively with Tide today, it would be necessary to go back in time and unseat it half a century ago; unfortunately for incumbents, there are very few products that enjoy this lucky combination of defensive factors.

Sweet spot strategies offer more promise to attackers, and the ability of attackers to target sweet spots makes incumbents increasingly vulnerable. But eternal vigilance is the price of starting a sweet spot strategy. Rocky Road was once a resonance marketing flavor, an extreme ice cream producing delight in a small segment of customers; it is now a commodity offering, and a Google Web search for the exact phrase “Rocky Road ice cream” produces over 55,000 pages. Ben & Jerry’s remains actively committed to its resonance strategy, and the role of innovation and vigilance is clear. Although it had 16 new flavors for 2007 and 43 flavors in total for the year, its *flavor graveyard* lists 287 *dearly departed favorites*. With informedness affecting both consumer and competitor, a well-targeted launch will produce immediate resonance, but if the segment is large enough, it will also produce a rapid competitive response.

The third and final generic strategy attempts to obtain more scale than possible with a sweet spot strategy and to reduce the importance of constant vigilance and innovation. It does so by creating platform products, products that allow customers to combine individual elements to create products that precisely match their own strongest preferences. In 1973, Steve Herrell founded Steve’s, an ice cream parlor in Somerville, Massachusetts, that allowed customers to combine super premium

ice cream with their own choice of “smoosh in” ingredients as customized add-in flavorings rather than as toppings, resulting in personalized ice cream flavors ([www.rocheinternet.com/~herrells/design/?lv=6](http://www.rocheinternet.com/~herrells/design/?lv=6)). Cold Stone Creamery has replicated the strategy and now operates over 1,200 locations. Similar strategies have been tried for products as diverse as shampoos and automobiles. In deference to Herrell and the decade in which his business strategy evolved, we call this the “roll your own” sweet spot product platform strategy.

## But What Do We Really Know?

IS THIS REALLY NEW? Some products have always been aimed at achieving resonance through hyperdifferentiation. The millennia-old cosmetics industry has always sought to produce what customers wanted in order to achieve resonance, although promotion and advertising remain quite significant for this category. Some industries have always relied on consumer informedness to eliminate the uncertainty discount; Robert Parker has achieved enormous influence over the American wine market simply by becoming *the* source of trusted information on vintage wines [28], and his granting of an unprecedented perfect 100 to the 1982 Chateau Mouton contributed to the phenomenal prices paid for the First Growth 1982 Bordeaux.<sup>14</sup> More generally, consumer product companies have always understood the importance of informed consumers, hence their reliance on advertising, couponing, and sampling. What is significant is that informedness is now becoming both nearly universal and largely outside of companies’ direct control, making possible resonance strategies in categories where expensive promotion was not possible. And the marketing research community has observed that information does indeed affect willingness to pay [41], although our explanation and our model appear to be unique.

Likewise, marketing has always sought personalization, whether of the advertising message [1, 31, 43] or through customization of the product [21, 22, 31, 33]. Surely Gilmore and Pine [21, 22] understood not only the power of mass customization but also the importance of serving smaller and smaller segments, with products better suited to their needs. We are not describing a new approach to personalizing a service or a message, new ways to customize a product, or new forms of customer relationship management (CRM), although CRM has much to contribute [9, 19]. Resonance marketing is not about mechanisms for allowing firms to circumvent information asymmetries and customers’ private information advantage in understanding their inherent type or cost to serve, such as signaling or screening mechanisms [26, 29, 36, 40]. This sort of customer segmentation has long been understood in the information economics community [11], and has long been used by firms.

What we are showing in resonance marketing is *why* companies can now profitably develop offerings to exploit these segments, relying on naturally informed consumers to find the offerings ideal for them, and how to do so. This paper focuses solely on the first part—why. For a more complete treatment of what resonance marketing is not, refer to Clemons and Gao’s companion paper [10].

Do we know that this phenomenon is real, and do we know that consumers really are willing to pay more, and hence really do buy more, when uncertainty is reduced? An early study of music purchases by college students indicated that when dormitories were given high-speed Internet connections, the students' music purchases increased [15]. This study was conducted before online downloads were possible, that is, these students were not buying songs or CDs for download, they were listening to music and then buying more CDs through catalogs or from online retailers than their classmates who could not sample music online before buying it. Informedness reduces the uncertainty discount, and reducing the uncertainty discount greatly increased music sales. Similarly, Clemons et al.'s [13] study of the beer industry confirms that when consumers are shopping to achieve delight and purchasing products that precisely match cravings and longings, rather than satisfying their most fundamental needs, then new product launches positioned in discrete sweet spots greatly outperform products positioned in central fat spots.

Do consumers always behave this way? Evidence suggests that they do not. There are categories of products for which the consumer is not seeking delight or perfect fit with cravings and longings, but simply adequate matching of basic needs. Sometimes the consumer *does* trade down, and sometimes being good enough appears to be good enough. Consumers using discount channels such as hotels.com or Expedia to find the lowest possible price for a hotel room in New York or Chicago do not expect delight but they do want adequacy. Travelers who like you now really are fully equivalent to travelers who love you; it is only travelers who hate you who will not accept your room even at the lowest possible price [10]. These findings are consistent with the predictions of prospect theory [10, 24]. Of course, this is a very unattractive way to sell hotel rooms, at the deepest discount, and with the highest commission; being barely good enough for your customers really is barely profitable and barely good enough as a strategy.

Is the mass market *ever* a good strategy? Of course! Movies do not compete on price, and the film with the largest number of screenings, and thus the largest possible market share, is the most profitable. Moreover, achieving blockbuster status is great for advertising tie-ins, future merchandizing, and future sales of DVDs.

## Putting the Pieces Together

---

THE FOLLOWING NINE GUIDELINES REPRESENT THE SEQUENCE of steps that a firm's senior management team needs to follow in order to safely navigate the transition to a resonance marketing strategy:

1. *Understand how information has changed consumer preferences and consumer behavior.* Informedness really does change consumers' purchasing decisions, and it is not possible to understand how corporations should respond without first understanding how their customers will act. This is the basis for everything that follows, and for everything that corporations will need to do in order to respond effectively to the changes consumers have created in their marketplace.

2. *Understand how these changes force corporations to modify their product offerings.* Executives need to understand the impact of differences among consumers' preferences on consumers' choices and on their willingness to pay for goods and services. In particular, corporations need to learn to identify unserved and underserved market segments; new offerings need to be designed based around consumers' unmet wants and needs, cravings and longings, and based around latent preferences that consumers cannot yet express because the right offerings are absent from the marketplace. Successful new offerings will be designed around gaps in the marketplace, not designed around the firm's current portfolio of offerings, or based on the firm's current strengths. This is fundamental to the firm's selection of its strategic positioning strategy and to its redesign of its portfolio of product and service offerings.
3. *Understand that preferences are dynamic, creating new resonance opportunities while foreclosing others.* Changes in preferences result from events (e.g., when the United States wins a gold medal in hockey or wins the World Cup in soccer, there will be a significant change in sporting goods purchases), from major cultural trends ("green" is now good, global warming is seen as real and as bad, and there are new opportunities for the Prius automobile, for bamboo fiber clothing, and off-grid green electricity generation), from emerging consumer preferences (light is good, organic is good, whiskey is bad), and from random cultural drift. Unserved and underserved market opportunities arise and vanish, and companies need to respond. This explains why products surge and then drop out of favor.
4. *Understand how these changes in consumer behavior force firms to modify their pricing structures.* As we have seen, consumers' willingness to pay is a function of the competition discount, the compromise discount, and the uncertainty discount, all of which have changed because of change in consumers' informedness. Margins on most commodity offerings have collapsed; supermarkets now make all of their ice cream profits in the superpremium end of the category; traditional soft drink sales are declining while premium new noncarbonated beverages are taking off. Pricing strategy has been transformed, and consumer behavior in the presence of informedness has been the principal driver.
5. *Understand how they need to alter production and distribution in order to control costs in the presence of greater complexity in the product and service portfolio offerings.* While needless complexity adds unnecessary expense, which can be lethal in price-competitive markets, there will inevitably be far more customization and far more offerings with small individual market share. There really is a long tail of preferences, of sizes, and hence of offerings in all goods and services. There is a range of techniques available for managing manufacturing costs; some deal with postponement, combinatorial assembly, the use of shared platforms, manufacture to order, and deferred specialization. Others deal with more advanced inventory management or better order tracking and forecasting. Most importantly, firms need to understand the new balance between profitable complexity (products and services that should be offered)

and unnecessary legacy complexity (products and services that no longer have sufficient demand to justify their continuation). The *dearly departed flavors* list of Ben & Jerry's is but the most obvious example. Managing the complexity of the firm's portfolio of offerings is now critical; understanding this allows the firm to assess when a product is profitable, when it produces profitable synergies, and when its incremental contribution to portfolio cannot be justified.

6. *Understand how they need to alter the firm's promotion strategies, both for existing products and for new offerings.* Advertising is losing its impact. Couponing and sampling still can be used selectively to overcome uncertainty discount of targeted consumers, but not as a long-term strategy to push sales of products that do not resonate. The future of retailing does not lie in dealing with the competition and compromise discounts by paying consumers to buy Kraft Cheddar, time after time, when they really prefer English farmhouse cheddar. The future lies more in offering consumers, especially latent *cheesies*, a one-time discount to try a single commune Roquefort or a well-hardened five-year-old Gouda for the first time, converting these consumers to repeat buyers of their new favorite cheeses without a constant stream of discounts to overcome their competition and compromise discounts. This explains why some of the fastest-growing consumer products have never been advertised, but rather have engaged consumers through carefully executed, cost-effective free sampling and events likely to draw their target customers.
7. *Understand the difficulty of maintaining consistently high ratings in community content Web sites, when any consumer can be either a brand advocate or a brand assassin.* Corporations need to achieve nearly flawless execution, since every piece of lost luggage and every disastrous room experience shows up in a report on TripAdvisor and, as we have shown, measurably reduces or destroys the firm's the ability to sell online [13].
8. *Maintaining the image that the firm wants consumers to share probably requires the introduction of a new C-level officer, the chief perception officer (CPO).* The CPO needs to work with marketing to make sure the image is well conceived, and needs to work with product development to make sure that the portfolio of offerings is consistent with that image. Most importantly, and most difficult, the CPO needs to coordinate every aspect of manufacturing, of service delivery, indeed every aspect of execution and operational performance, to ensure that every customer interaction is consistent with the desired image. A single failure to execute can lead to a terrible customer experience, and this experience can result in a Web posting that undercuts years of the firm's investment in its image and in managing its customers' perceptions.
9. *And despite the temptation, do not attempt to sock puppet, impersonate a customer to post your own reviews, or edit the content that is posted on community Web sites.* There is now ample evidence that this will be *outed*, and that it will be more damaging than allowing the unflattering content to remain. Fix the problem, not the review or the reviewer [3, 17].

## In Conclusion

HYPERDIFFERENTIATION AND RESONANCE MARKETING will transform all aspects of the firm's marketing strategy, including product design, production, distribution, and pricing strategies. Increased customer awareness and increased willingness to pay have increased the role of price when choosing among commodity offerings while allowing firms to reduce the role of price in customers' choice of products and services that are unique and truly resonate with those customers.

Sweet spots have become more attractive as the uncertainty discount associated with new offerings has been reduced, while fat spots have been made less attractive by the increase in both the competition discount and the compromise discount. Skill in the identification and exploitation of opportunities has become more important, while scale and the value of historical fat spots have become less so. The profit from addition, from summing the profits from numerous high-margin sweet spots, now exceeds the value obtained from multiplication, from multiplying the low margins of a fat spot by its huge size.

- Firms *have to* execute a resonance marketing strategy, because the competition discount and the compromise discount have seriously eroded the profit on commoditized *me-too* offerings.
- Firms want to execute a resonance marketing strategy, because the reduction of the uncertainty discount has boosted the margins and the profits from resonating sweet spot offerings.
- And firms *can* execute a resonance marketing strategy, because the complexity penalty is now manageable.

---

*Acknowledgments:* The author thanks Saleha Asif of McKinsey, Steve Barnett of Bardo Consulting, Gil Brodnitz of Accenture, Bill Brunger of Continental Airlines, Bill Covaleski of Victory Brewing, Chris Dellarocas of the University of Maryland, Gordon Gao of the University of Maryland, Bin Gu of the University of Texas at Austin, Lorin Hitt of the University of Pennsylvania's Wharton School, Panos Markopoulos of McKinsey, Paul Nunes of Accenture, Rick Spittler of Novantas, Jerry Wind of the Wharton School, and Jim Young of the InterContinental Hotels Group. In addition, the author thanks Robert Kauffman for his most careful reviewing and editing of this paper.

## NOTES

1. Throughout this paper, the term *consumer* is used to refer to an individual who buys something in a given category. The use of the term *customer* is reserved to refer to a consumer who buys a specific product. Thus I can be a consumer of phone services without being a customer of Verizon if I do not have any Verizon products or services. Where it appears useful to do so, we may refer to a consumer, not yet a customer, as a *potential customer* if he or she is contemplating the purchase of a specific product.

2. The Ratebeer.com Top 500 listing can be found online, and the majority of the beers have never been advertised; indeed, few of the brewers listed have advertised any of their offerings. See [www.ratebeer.com/RateBeerBest/table.asp?title=Best+Beers+of+the+United+States+2007&file=usa\\_beer\\_2007.csv](http://www.ratebeer.com/RateBeerBest/table.asp?title=Best+Beers+of+the+United+States+2007&file=usa_beer_2007.csv).

3. The Scoville heat scale for peppers was developed by Wilbur Scoville in 1912. Ratings can be seen online at <http://info-s.com/chart6.html>.

4. For an example of a highly specialized offering, consider automatic watch winders, used to wind automatic (self-winding) mechanical wristwatches, for people who own more than one and need to keep a second wound while wearing the first. The demand for this product cannot be high, and without online sales, it would probably be impossible to find a sufficient number of consumers to support a physical store for this product in any geographic location ([www.orbita.net/pages/10000.htm](http://www.orbita.net/pages/10000.htm)).

5. Graeters provides an example of the kind of consumer informedness we are discussing here. It is a small family-owned business in Cincinnati, Ohio. Its ice cream is available only locally or online through the Internet, and yet the phrase “Graeters ice cream” results in over 11,000 Google hits, including the company’s own entry in Wikipedia (<http://en.wikipedia.org/wiki/Graeters>).

6. While we do not claim that Amazon earns more on the long right tail than on the fat left end of its sales distribution curve, we note that for many grocers, the bulk of their profits already come from the long tail perimeter of the store rather than the fat middle. Similarly, many manufacturers share GM’s experience to some degree, where sweet spot offerings (Corvette, Hummer) are already more profitable than the bulk of the firm’s more commoditized products. The argument behind resonance marketing is that firms will face increasing price pressure on their fat spot offerings and will earn increasingly attractive margins on their sweet spots.

7. Trading up is moving to a product that is better in some readily accepted sense, like moving from a Nissan 3.5 liter Murano SUV to the corresponding 4.5 liter Infiniti FX45. Trading down, likewise, is readily understood to be moving down market, to a less-expensive product. Trading out refers to moving to a product that is not better in any absolute sense, but better suited to the preferences of an individual customer. This would correspond to selecting an Infiniti Q45 instead of a Lexus LX 450, or a Luna Tea Cake bar instead of a Clif Maple Nut.

8. Please see the Appendix for a complete discussion of the assumptions underlying Figures 1 through 4 and for the derivations of the curves depicted in them.

9. Moderate uncertainty in this context is a band of uncertainty that is centered around the expected location of the available product and that does not extend past the consumer’s actually ideal choice.

10. For example, craft beer represents the fastest-growing segment of the brewing industry, but it is still only a small percentage of the market. With less than 4 percent of the beer market shared among hundreds of small producers, the cost of advertising would be prohibitive, and mass mailing of samples is unlikely to be cost effective since any given beer is unlikely to produce the necessary resonance in any given household. Such mass mailings of beer are, of course, also illegal.

11. Consider how similar Coke and Pepsi really are, even if their ad campaigns are significantly different. This was parodied in *The New Yorker*’s review of a hypothetical new beverage from Pepsi and Coke *simultaneously* [5]. For contrast, consider how different noncarbonated alternatives are by comparing a Starbucks Frappuccino to a Naked Pomegranalicious.

12. Line extensions are similar enough that, if the brands were owned by separate companies, they would inevitably compete for market share; there would be no equilibrium price. If Nabisco owned Honey Nut Cheerios and General Mills owned traditional Cheerios, each might attempt to cut the price slightly, to gain market share at the expense of the other; this, of course, leads to a traditional price war. However, with both brands owned by the same firm, the firm can seek to maximize profits without worrying about interbrand price wars. In all likelihood, the firm would not actually set the price of all new products to that of their previous profit-maximizing price; some would be set higher and others would be set lower to maximize total profits. Not surprisingly, Honey Nut Cheerios are more than 20 percent more expensive per ounce than traditional Cheerios.

13. Barnett was perhaps the first anthropologist to apply ethnographic observation and the field research techniques of anthropology to the study of consumer behavior. Sometimes his studies can be quite simple. Customers had reduced their purchase of Snickers and sales declined. Barnett observed individuals selecting candy bars, watched what they purchased, and asked them why they had not bought Snickers. The most frequent answer, “I’m hungry, I need food, not a treat,” led both to a new ad campaign stressing how good Snickers were when you were hungry and the introduction of a Snickers Marathon power bar. Other studies involved reading every automotive review ever published in *Consumer Reports* to learn what was and

was not deemed important for a particular market segment and to determine what was and was not currently available; this work was incorporated into the initial launch of the Lexus 400.

14. By definition, each vintage is unfamiliar to consumers when still in cask and they have never had a chance to taste it, and Parker's ratings determine not only the price of newly released bottlings but also of unreleased wine futures.

15. This may appear to be a strong assumption, even an unjustified assumption, but it is the general assumption made by Hotelling [23], Salop [37], and their successors. Indeed, this assumption, combined with the assumption of customers' being uniformly distributed over product-attribute space, gives rise to the familiar downward-sloping linear price-quantity demand curve.

## REFERENCES

1. Allen, C.; Kania, D.; and Yaeckel, B. *One-to-One Web Marketing: Build a Relationship Marketing Strategy One Customer at a Time*, 2d ed. New York: John Wiley & Sons, 2001.
2. Anderson, C. *The Long Tail: Why the Future of Business Is Selling Less of More*. New York: Hyperion Press, 2006.
3. Awad, N., and Etzion, H. Stay out of my forum! Evaluating firm involvement in online ratings communities. Paper presented at the Workshop on Information Systems and Economics (WISE 2006), Evanston, IL, December 9–10, 2006.
4. Bakos, J.Y. Reducing buyer search costs: Implications for electronic marketplaces. *Management Science*, 43, 12 (1997), 1676–1692.
5. Barlow, A. Shouts and murmurs: Something for everyone. *New Yorker* (March 1, 2004), 44.
6. Barnett, S. Turning the long tail on its head: Consumer evolution and informedness. *Cutter IT Journal*, 20, 4 (May 2007), 8–12.
7. Brynjolfsson, E.; Hu Y.; and Smith, M.D. From niches to riches: Anatomy of the long tail. *Sloan Management Review*, 47, 4 (Summer 2006), 67–71.
8. Brynjolfsson, E.; Smith, M.D.; and Hu, Y. Consumer surplus in the digital economy: Estimating the value of increased product variety at online booksellers. *Management Science*, 49, 11 (2003), 1580–1596.
9. Buttle, F. *Customer Relationship Management*. Boston: Butterworth-Heinemann, 2003.
10. Clemons, E.K., and Gao, G. Consumer informedness and diverse consumer purchasing behaviors: Traditional mass market, trading down, and trading out into the long tail. *Electronic Commerce Research and Applications*, 7, 1 (Spring 2008), 3–17.
11. Clemons, E.K., and Weber, B.W. Segmentation, differentiation, and flexible pricing experiences with information technology and segment-tailored strategies. *Journal of Management Information Systems*, 11, 2 (Fall 1994), 9–36.
12. Clemons, E.K.; Barnett, S.; and Appadurai, A. The future of advertising and the value of social network Websites: Some preliminary examinations. Paper presented at the Ninth International Conference on Electronic Commerce: The Wireless World of Electronic Commerce, Minneapolis, MN, August 19–22, 2007.
13. Clemons, E.K.; Gao, G.; and Hitt, L. When online reviews meet hyperdifferentiation: A study of the craft beer industry. *Journal of Management Information Systems*, 23, 2 (Fall 2006), 149–171.
14. Clemons, E.K.; Gu, B.; and Spitler, R. Hyperdifferentiation strategies: Delivering value, retaining profits. In R.H. Sprague (ed.), *Proceedings of the Thirty-Sixth Annual Hawaii International Conference on System Sciences*. Los Alamitos, CA: IEEE Computer Society, 2003 (available at <http://csdl2.computer.org/comp/proceedings/hicss/2003/1874/08/187480225b.pdf>).
15. Clemons, E.K.; Spitler, R.; Gu, B.; and Markopoulos, P. Information, hyperdifferentiation, and delight: The value of being different. In S. Bradley and R. Austin (eds.), *The Broadband Explosion: Leading Thinkers on the Promise of a Truly Interactive World*. Boston: Harvard Business School Press, 2005.
16. Dellarocas, C. The digitization of word-of-mouth: Promise and challenges of online reputation systems. *Management Science*, 49, 10 (2003), 1407–1424.

17. Dellarocas, C. Strategic manipulation of Internet opinion forums: Implications for consumers and firms. *Management Science*, 52, 10 (2006), 1577–1593.
18. Dellarocas, C.; Awad, N.; and Zhang, X. Exploring the value of online reviews to organizations: Implications for revenue forecasting and planning. In *Proceedings of the Twenty-Fifth International Conference on Information Systems*. Atlanta: Association for Information Systems, 2003, pp. 379–386.
19. Dyché, J. *The CRM Handbook: A Business Guide to Customer Relationship Management*. Boston: Addison-Wesley Professional, 2001.
20. George, M., and Wilson, S.A. *Conquering Complexity in Your Business: How Wal-Mart, Toyota, and Other Top Companies Are Breaking Through the Ceiling on Profits and Growth*. New York: McGraw-Hill, 2004.
21. Gilmore, J., and Pine, J. The four faces of mass customization. *Harvard Business Review*, 75, 1 (February 1997), 91–101.
22. Gilmore, J., and Pine, J. (eds.). *Markets of One: Creating Customer-Unique Value Through Mass Customization*. Boston: Harvard Business School Press, 2000.
23. Hotelling, H. Stability in competition. *Economic Journal*, 39, 153 (1929), 41–57.
24. Kahneman, D., and Tversky, A. Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 2 (1979), 263–291.
25. Kotler, P., and Keller, K.L. *Marketing Management*, 12th ed. Upper Saddle River, NJ: Prentice Hall, 2006.
26. Landsburg, S. *The Armchair Economist: Economics and Everyday Life*. New York: Free Press, 1995.
27. McCarthy, E.J., and Perreault, W.D. *Basic Marketing*. New York: McGraw-Hill, 2005.
28. McCoy, E. *The Emperor of Wine: The Rise of Robert M. Parker, Jr., and the Reign of American Taste*. New York: Ecco, 2005.
29. Milgrom, P., and Roberts, J. *Economics, Organization and Management*. Englewood Cliffs, NJ: Prentice Hall, 1992.
30. Mullman, J. Big brewers gut ad spend, sell more beer—Exclusive: Miller and A-B move more money to unmeasured media. *Advertising Age*, 78, 38 (September 24, 2007), 1, 34.
31. Murti, B.P.S., and Sarkar, S. The role of the management sciences in research on personalization. *Management Science*, 49, 10 (2003), 1344–1362.
32. Nunes, P., and Johnson, B. *Mass Affluence: Seven New Rules of Marketing to Today's Consumer*. Boston: Harvard Business School Press, 2004.
33. Pine, J., and Gilmore, J. *The Experience Economy: Work Is Theater & Every Business a Stage*. Boston: Harvard Business School Press, 1999.
34. Porter, M.E. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press, 1998.
35. Riedl, J.; Konstan, J.; and Vrooman, E. *Word of Mouse: The Marketing Power of Collaborative Filtering*. New York: Grand Central Publishing, 2002.
36. Rothschild, M., and Stiglitz, J. Equilibrium in competitive insurance markets: An essay on the economics of imperfect information. *Quarterly Journal of Economics*, 90, 4 (November 1976), 629–649.
37. Salop, S.C. Monopolistic competition with outside goods. *Bell Journal of Economics*, 10, 1 (1979), 141–156.
38. Senecal, S., and Nantel, J. The influence of online product recommendations on consumers' online choices. *Journal of Retailing*, 80, 2 (2004), 159–169.
39. Silverstein, M., and Fiske, N. *Trading Up: The New American Luxury*. New York: Penguin Group, 2003.
40. Spence, M. *Market Signaling: Information Transfer in Hiring and Related Processes*. Cambridge: Harvard University Press, 1974.
41. Tellis, G.J., and Gaeth, G.J. Best value, price-seeking, and price aversion: The impact of information and learning on consumer choice. *Journal of Marketing*, 54 (April 1990), 34–45.
42. Varian, H.R. Versioning information goods. In B. Kahin and H.R. Varian (eds.), *Internet Publishing and Beyond*. Cambridge, MA: MIT Press.
43. Wind, J., and Mahajan, V. *Digital Marketing: Global Strategies from the World's Leading Experts*. New York: John Wiley & Sons, 2000.

## Appendix

FIGURE A1 SHOWS THE WILLINGNESS-TO-PAY CURVE for a single consumer, contemplating a purchase of a suit at the position of the asterisk (\*) along the  $x$ -axis, the set of all possible suits, or *suit-description space*. Since the suit at \* is ideal for this consumer, his willingness to pay reaches its maximum  $V$  at this location. As is customary (see, for example, Hotelling [23] or Salop [37]), the consumer's willingness to pay for an alternative product is shown as decreasing linearly with the distance between that product and the consumer's ideal purchase. For a product located a distance  $X$  away from \*, willingness to pay drops by  $C$ , the consumer's compromise discount, based on distance  $X$  and a scale factor, unit fit cost, which converts distance from ideal into reduction in willingness to pay.

Figure 2 shows how uncertainty about a product's actual location also reduces a consumer's willingness to pay for a product. We begin with the same consumer shown in Figure 1, once again considering a product located at his or her ideal \*P, and once again willing to pay his or her maximum,  $V$ , for this ideal product. However, now the consumer faces a symmetric band of uncertainty around \*P. As a result of this, the consumer now expects to get *some* product in the range of uncertainty, rather than his or her ideal product with certainty. This specific consumer's willingness to pay for a random selection of *any* product in the range is simply the average over *all* products in the range. As we can see from Figure 2, 3, and 4, this willingness to pay starts at  $X_l$  on the left end of the band, rises to  $V$  in the center of the band, and declines back to  $X_r$  on the right. The average on the left side is  $X_a$ , which by symmetry is also the average on the right side. The consumer's willingness to pay is the average of the willingness to pay on each side, once again simply  $X_a$ . The difference between  $V$  and  $X_a$  is the uncertainty discount  $U$ .

Figure 3 shows how uncertainty about a product's actual location reduces a consumer's willingness to pay for a product that was not expected to be ideal. This time the consumer's ideal product would have been located at \*C, which is at the far end of the consumer's band of uncertainty. As is customary, we assume that this consumer has the same willingness to pay for his or her ideal product, once again  $V$ , but that the ideal product and thus the entire willingness-to-pay curve has been shifted to the right.<sup>15</sup> The product that the consumer expects to receive lies anywhere in the range of uncertainty, with willingness to pay bounded by  $X_l$  and  $X_r$ . The average  $X_a$  over this range is the same as the consumer's initial willingness to pay for a product at \*P,  $VC(P)$ , and there is no uncertainty discount.

Figure 4 shows how uncertainty about a product's actual location reduces *all* consumers' willingness to pay for the product, irrespective of where their ideal product is located. Consumers are now assumed to be distributed uniformly along the product-space  $x$ -axis. For a consumer at \*P the uncertainty discount is maximum, as shown by the maximum dip in willingness to pay between the inverted  $V$  and the inverted  $U$ ; the derivation of this was shown in Figure 2. For consumers whose ideal product is located at the edge or outside the band of uncertainty, willingness to pay is not altered; the derivation of this was shown in Figure 3. For consumers whose ideal product is

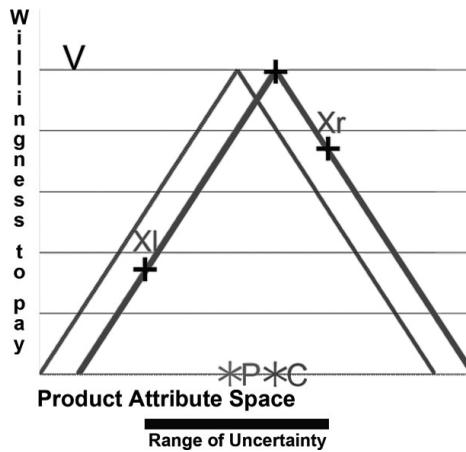


Figure A1. The Derivation of Reduced Willingness to Pay in the Presence of Uncertainty, for a Consumer Whose Ideal Product Lies Within But Not at the Center of the Band of Uncertainty

located within the band of uncertainty, but not at  $*P$  or at either end, willingness to pay is reduced by some intermediate amount. This can best be explained by referring to Figure A1. Consider the single customer whose ideal product is shown at  $*C$ . This customer actually has a band of uncertainty that includes both the possibility of an improvement, which results from having the product closer to his or her ideal than  $*P$  was, as well as the possibility of a worse fit; the green bar shows that portion of the range of uncertainty that represents an improvement. This customer's willingness to pay under the range of uncertainty shown can be computed by taking the average of the customer's willingness to pay from  $Xl$  to  $Xr$ , and is shown at  $Xa$ . While uncertainty will still produce a reduction in willingness to pay, the resulting willingness to pay will be neither as high as that shown in Figure 2 or as low as that shown in Figure 3. The set of all such points  $Xa$ , showing the willingness to pay derived over all consumer locations  $*C$ , generates Figure 4.

Copyright of *Journal of Management Information Systems* is the property of M.E. Sharpe Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.