Consumer Informedness and
Diverse Consumer Purchasing Behaviors:
Traditional Mass Market, Trading Down, and Trading Out into the Long Tail

Eric K. Clemons, Guodong (Gordon) Gao, Lorin M. Hitt
Draft 1 // 8 September 2006

1. Introduction

With the publication of The Long Tail [Anderson 2006] our earlier work on resonance marketing and hyperdifferentiation [Clemons, Gu and Spitler 2003; Clemons et al 2005] has become more relevant, and the problems have become of greater interest to more scholars in the field of information economics [Brynjolfsson, Smith and Hu 2003]. However, The Long Tail focuses largely on information goods, goods that can be sold online, or both; after reflection the limitations of this work become clear:

- An online vendor like Amazon does not worry about inventory holding costs or turnover rates. A grocer has to do so. Products that do not sell, or that do not sell quickly, occupy critical floor space and can destroy profitability in a number of ways. Those that code out (spoil or pass sell-by dates) before sale can be even worse.
- A pure information good often has minimal per copy production costs; stocking all Indian movies in the US because they cost nothing to produce ignores the fact that the original production cost was justified by a large domestic market for Bollywood films, for which the movie was not a long tail offering.
- Some products really do succeed in defending the mass in the middle, which has not vanished. While retailers may earn very little selling Tide laundry detergent or Hellmann's Real Mayonnaise due to competition from other retailers, these products are dominant in their marketplace and profitable for their manufacturers.

We feel that it is especially valuable at this time to examine the assumptions of resonance marketing and to explore how improved customer information endowments alters the strategies of new entrants and established incumbents, and where improved customer information endowment does and does not drive customers out of the established middle and into the long tails.

2. Resonance Marketing and Hyperdifferentiation

2.1. Traditional Marketing Strategies — Occupy the Center of the Board

Traditional marketing strategy suggests that the first firms to enter a market will occupy the center[1] of the market:

- That is where most consumers actually are. In its weakest form this statement is true because boundary conditions limit the size of the market available to firms that locate near the edges of the product attribute space. In a more extreme form, this statement also notes that consumers may not be located uniformly in the product attribute space, but rather observe some form of peaked distribution, with the bulk of the mass near the center. This assumption in its weak form is consistent with the standard Linear City model.
- Moreover, customers expect the successful initial entrants to provide high quality products near the center of the products' attribute space, for two reasons. Initially, with no information on a product's positioning in product attribute space, consumers will assume the product is located in center of their zone of uncertainty; this is a fundamental Bayesian assumption that we feel is both useful and valid. As consumers gain more experience, and note that indeed products actually are located in the center, their zones of uncertainty will contract and they will strongly come to expect products to be located in the center of their product attribute spaces; again, this is a simple Bayesian assumption that we

[1] Throughout we will use a linear city model [Hoteling 1929]. Unlike the circular city model [Salop 1979], when modeling extremes it is important to note that they do not merge, and that boundary conditions, rather than representing anomalies, are actually significant.

believe is useful and valid. This assumption provides motivation for observed corporate behavior but is not required for our formal analysis of consumer behavior, the topic of this paper.

Together these argue that:

- Manufacturers will choose to locate in the center of product attribute spaces
- Consumers will expect manufacturers to locate products in the center. Consumers with product preferences consistent with this will be pleased; consumers with preferences inconsistent with this will be less pleased.
- Consumers who prefer products to be located away from the center do not expect to find them and are unwilling to pay premium prices for them if manufacturers offer them without fully informing consumers about them.
- Manufacturers who would otherwise locate products in the edges of the product attribute space will not do so because they know that without economies of scale they will need to charge premium for them, and that consumers who might prefer these products will not even look for them.

To succeed in this marketplace, manufacturers want to introduce products with the strongest possible average ratings. The greater the number of consumers who like a product, and the smaller the number of consumers that dislike it, the higher its average ratings will be. This is the sort of marketing strategy advanced by traditional surveys and focus group research.

2.2 The Advent of Resonance Strategies in the Presence of Informedness

Recent improvements in information availability have significantly changed the marketplace:

- Consumers are now more fully informed about what is available to them. That is, consumers with preferences away from the center of the product attribute space will know when new products become available with the precise set of attributes that meet their preferences.
- Producers now know that consumers can and will find their new products if these new offerings are appropriate for them.
- Producers can now manage more complex portfolios of offerings

Together, these changes have enabled some firms to pursue ***resonance marketing strategies***, in which they introduce more diverse, even more extreme offerings. These offerings may have smaller market shares individually, but they enjoy significantly higher margins than center of the market offerings and account for a disproportionately high and ever increasing share of category profits **[**Clemons, Gu, and Spitler 2003; Clemons, Spitler, Gu, and Markopoulos 2005; Clemons, Gao and Hitt 2006**]**.

Just as not all firms pursue resonance marketing strategies, not all consumers respond to resonance marketing strategies. More importantly, consumers do not appear to follow a single purchasing strategy all of the time, or for all categories. A corporate executive may stay at a Four Seasons during the week when traveling on business, and may stay at a Holiday Inn when taking is daughter to visit colleges. A young golfer may travel in coach class to Hawaii and stay in cheap hotels to save money, but then play on the best available golf courses. We are all familiar with the phenomenon of trading up [Silverstein and Fiske 2003]; as importantly, consumers are now ***trading down*** and ***trading out***. That is, truly informed consumers are able to find the cheapest available adequate alternative for purchases that do not matter to them (trading down), and able to find the non-traditional alternative with the best fit to their precise preferences (trading out).

This paper explores the range of strategies currently pursued by consumers. It explores traditional purchasing strategies (best product in the center of the marketplace), trading out strategies (best fit with individual preferences), and trading down strategies (minimum regret strategies, or best price among adequate low cost alternatives). We present both mathematical models that would explain each of these forms of behavior and empirical data to suggest that this behavior does indeed occur.

2.3. Empirical Support for Informedness

Prior academic research has provided some support for the expected effects of informedness on corporate strategies and consumer behavior:

- Firms do behave as if informedness matters, as Markopoulos [2005] has shown in his study of Video Games before and after the ability of game publishers to make demonstration versions online via high speed internet connections [Clemons, Spitler, Gu and Markopoulos 2005].
- Consumers do behave as if informedness matters, as Gu demonstrated in his comparison of shopping for music in the presence of and in the absence of high speed internet connections [Gu, Hitt and Clemons 2002].
- Consumers do behave as if it is the extremes of product positioning, and not the means that matter when shopping for products where delight appears to be the principal driver of product selection and a number of very different products charge prices that are significantly higher than mass market prices [Clemons, Gao and Hitt, 2006].
- Consumers do behave as if it is the means that matter, and not the extremes, for mass market products where price is not a differentiator [Dellarocas, Awad and Zhang 2004].

3. Informedness and Traditional Purchasing Behaviors

Traditional purchasing behaviors are those involving mass market offerings. We characterize mass market offerings as those that appeal to the largest number of consumers, and that do not compete largely on the basis of price since most have prices that are quite similar. We present an extremely simplified model of consumer behavior when purchasing mass-market offerings, which assumes the following: Competition among alternatives is purely vertical and not horizontal; that is, if consumers are going to see many movies, or purchase many CDs and DVDs all of which have the same price, they will buy those that they believe are best. While buying a single movie ticket may involve looking for the best fit with one's movie preferences, when purchasing dozens of tickets over the course of a year purchases are based more on which movies appear to be best in some mass market sense.

If these assumptions are met, then the mean of consumer reviews is the best predictor of sales. This is confirmed empirically by Dellarocas's study of movie ticket sales in the presence of online evaluations [Dellarocas, Awad and Zhang 2004].

4. Informedness, Trading Out and Resonance Marketing

Trading out purchasing behaviors are those involving the purchase of more specialized and more extreme offerings. These offerings do not seek to be best in any abstract sense; rather, each one seeks to be best for some distinct set of consumers, probably a small set of consumers whose preferences are centered on a product offering a considerable distance from the mass market center of the product attribute space. These offerings do not compete on the basis of price because they cannot do so; they are more expensive to produce than mass market offerings for a variety of reasons, ranging from reduced economies of scale to the reliance upon more expensive materials and production processes. We present an extremely simplified model of consumer behavior when purchasing resonance marketing offerings: Competition among alternatives is purely horizontal and not vertical; that is, if consumers are going to pay more for a beer or an ice cream, or a golf ball or putter, or a hotel room, or an SUV, they must believe that it is better for them and more closely aligned with their preferences. If these assumptions are met, then the mean of consumer reviews is no longer the best predictor of sales. Rather, it is the strength of the reviews of the top quartile of reviews, the strength of the reviews of consumers who feel that this product is best for them, that indicates how well the product will do in the marketplace. A simple model of consumer behavior confirms the expected result. The previous study by the authors confirms that at least for one delight-based trading out category, these results are also supported empirically.

5. Informedness and Trading Down

Trading down purchasing behaviors are those involving the purchase of the least expensive offering in which the consumer has confidence. There are indeed corporations whose entire strategies are based on assured adequacy and reduction or elimination of consumers' risk[2]. Consumers exhibiting trading down behaviors while considering purchases do not seek the best offerings in any abstract sense; indeed, we postulate that they do not seek to find the best discount offerings at all. Rather, we postulate that consumers seem to avoid disappointment or even disaster. Consumers' first consideration is price when trading down; within this consideration, consumers next seek to minimize regret and to avoid alternatives that may be uncertain or disappointing. We present an extremely simplified model of consumer behavior when purchasing resonance marketing offerings: Competition among alternatives is purely vertical and not horizontal; that is, although customers are seeking the least expensive alternative, they are seeking the least expensive acceptable alternative. This is a very weak form of vertical competition: consumers are not looking for the best offering at each price point, but rather are seeking to avoid the worst offering. That is, these consumers are seeking to minimize their regret, and are avoiding those offerings that received the worst ratings from other consumers. If these assumptions are met, then the mean of consumer reviews is no longer the best predictor of sales. Rather, it is the strength of the reviews of the bottom quartile of reviews, the strength of the reviews of consumers who rejected this alternative, that indicates how well the product will do in the marketplace. Again, the same simple model of consumer behavior confirms these predictions.

There exist at least some studies that confirm the utility and power of this simple model. The full version of this paper will present a study of online hotel reservations and sales effectiveness through discount channels and the effect of positive, negative, and average ratings on sales. We were able to obtain sales data for a single hotel company's up-market, mid-market, and down-market offerings, broken out by sales channel (traditional agency, traditional hotel company reservations services, direct to hotel, or online discount) and customer satisfaction ratings (administered by the hotel, by the chain, and online). We expected to find that the single best predictor of online sales effectiveness for shoppers selecting solely on the basis of price would be disaster avoidance, and that the absence of extremely negative online reviews would be the best predictor of online sales. The results we obtained were suggestive but inconclusive. We found (1) for the company's up-market brand there were not a significant number negative reviews; (2) for the company's down-market brand traditional mass market indicators like number and mean of online reviews were the best predictor of online sales effectiveness; and (3) for the company's mid-market offerings the effect we expected to see was indeed observed. A number of mid-market properties exhibited a surprising number of detailed, specific, hostile reviews, and the word count of these negative reviews was strongly correlated with sales effectiveness. More precisely, in this mid-market category, the single best predictor of ability to sell online was the absence of problematic reviews, and the best predictor of inability to sell was the word count and specificity of these negative reviews. Follow-up interviews suggest that consumers are indeed behaving rationally, in that mid-market hotels show far more variability in room quality than down-market hotels, and that guests at these mid-market hotels received service that varied far more by channel type than did guests at either up-market or down-market properties. For the company's mid-market offerings, negative online ratings for specific properties were indeed a very good predictor of the guests' expected experience at those properties.

6. Conclusions and Directions for Future Research

6.1. Conclusions and Contributions of this Work

This paper attempts to make five modest contributions:

- Review what is known about customer informedness and the evidence that suggests it is indeed affecting both consumer purchasing behavior and corporate marketing strategies
- Suggest that traditional purchasing strategies involving mass market mass appeal offerings like Tide, Budweiser, Hersheys and Coca Cola are being augmented by trading down (into new discount

---

[2] Surely McDonalds' success is based on assured adequacy of the product rather than upon development of extreme delight among gourmet consumers. Likewise, Holiday Inn's market positioning has jokingly been described as "first choice of last resort" by industry consultants.

offerings like Jet Blue and new discount channels like hotels.com) and trading out (into new extremely differentiated offerings that seek to produce resonance with small groups of consumers, like Victory Hop Devil Ale and Dogfish Head World Wide Imperial Stout, Luna Powerbars, or Arizona and Tazo Ice Teas.

- Present simplified mathematical models that would provide one possible explanation for and description of these consumer behaviors
- Present at least some evidence to suggest that these behaviors are indeed present at least some of the time.

We have attempted to be careful not to over state or over claim our findings. That is, we are not claiming that resonance marketing has eliminated other forms of corporate product positioning strategy or eliminated other forms of consumer purchasing behavior, we have not claimed that our models represent the only mathematical explanations of or descriptions of these behaviors, and we have not claimed that online ratings drive this behavior. We are claiming that these models do describe these behaviors, and that there is data to suggest that these behaviors are present in some categories and some consumer groups, at least some of the time.

6.2. Directions for Future Research

Our future research will address implementation of resonance marketing strategies in the presence of changing degrees of customer informedness. Unlike suggestions made in The Long Tail [Anderson 2006], companies attempting to profit from consumers' trading out need to address serious questions of (1) strategy as mass marketer, provider of resonance products, or provider of resonance platforms that can be fine tuned by the end consumer; (2) design and selection of products to offer; (3) logistics; and (4) enhancing consumer informedness in an era of decreasing effectiveness of traditional advertising.

7. References

Anderson, C. The Long Tail: Why the Future of Business Is Selling Less of More, New York: Hyperion Press, 2006

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, pp. 1580-1596.

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, Forth coming 2006.

Clemons, E.K.; Gu, B.; and Spitler, R. "Hyper-differentiation Strategies: Delivering Value, Retaining Profits," *Proceedings of Hawaii International Conference on System Sciences*, 36, Big Island, Hawaii, 2003.

Clemons, E.K.; Spitler, R.; Gu, B.; and Markopoulos, P. "Information, HyperDifferentiation, and Delight: The Value of Being Different," in Bradley, S., and Austin, R. ed., *The Broadband Explosion: Leading Thinkers On The Promise of A Truly Interactive World*, Boston: Harvard Business School Press, 2005, pp. 137-16

Dellarocas, C. Awad, N. and Zhang, X. "Exploring the Value of Online Reviews to Organizations: Implications for Revenue Forecasting and Planning.", University of Maryalnd, Working paper, 2004

Gu, B., Hitt, L. and Clemons, E., "Does Online Product Information Increase Consumer Demand? An Empirical Investigation" (September 2002) working paper

Hotelling, H. "Stability in Competition", The Economic Journal, (39), 1929, pp. 41-57.

Markopoulos, P. "Product Information Dissemination in Internet Markets and Markets for Product Information", Doctoral Dissertation, University of Pennsylvania, 2005

Salop, S. C., "Monopolistic Competition with Outside Goods," *The Bell Journal of Economics*, 10:1 1979, pp. 141-156.

Silverstein, M. and Fiske, N. Trading Up: The New American Luxury, New York: the Penguin Group, 2003