Lost in Translation: Consumers Difficulty in EstimatingExpiration Time With Redemption Caps

Richard Hanna, Boston College, USA
Scott Swain, Boston University, USA
S. Adam Brasel, Boston College, USA

Using redemption caps (e.g., good for the first 40 callers) is increasing in promotions, especially online. However, it is not clear how consumers interpret how much time they actually have to redeem with this type of restrictions, especially when the target market size is unknown. We propose that consumers anchor their estimates of market size and demand (i.e., response rate) from the stated redemption cap. The authors find that consumers, while believing demand grows with the cap size, overestimate how much time they have to redeem the offer and are more likely to lose out on the opportunity.

[to cite]:

[url]:
http://www.acrwebsite.org/volumes/12922/volumes/v34/NA-34

[copyright notice]:
This work is copyrighted by The Association for Consumer Research. For permission to copy or use this work in whole or in part, please contact the Copyright Clearance Center at http://www.copyight.com/.


---

**Lost in Translation: Consumers Difficulty in Estimating Expiration Time with Redemption Caps**

Richard Hanna, Boston College, USA  
Scott Swain, Boston University, USA  
S. Adam Brasel, Boston College, USA

**Extended Abstract**

More and more, firms are using redemption caps as a form of promotional restriction. For example, GM ran a promotion tied in with a television show (the Apprentice) for their new vehicle, the Solstice. The offer was available for the first 1000 callers. The promotion cap was reached within hours of the show ending, yet a large number of consumers called for days after the promotion expired. In another example, a regional health club franchise ran a promotion for membership upgrade good for the first 100 responses. The promotion cap ran out on the second day, yet many members were still trying to redeem the offer weeks later. In this research, we examine how consumers process promotions that have redemption caps.

Prior research on promotional restrictions has focused on concrete and well-defined time limits (e.g., Raghubir, Inman, and Grande 2004). The findings have been mixed. Some studies find that consumers perceive short promotion durations as inconvenient, thus lowering their purchase intentions (Sinha, Chandran, and Srinivasan 1999), while other studies find that shorter durations can increase purchase intentions by increasing perceptions of deal scarcity (Inman, Peter, and Raghubir 1997) or by heightening the anticipated regret associated with not acting (Inman and McAlister 1994; Simonson 1992).

We propose that consumers evaluate redemption cap promotions, in part, by estimating the reach, response rate, and duration of the promotion. The reach of the promotion refers to the number of other consumers exposed to the promotion and the response rate refers to the percentage of exposed consumers who will act on the promotion. We argue that consumers’ estimates of these quantities are anchored off of the redemption cap itself. Thus, the larger the redemption capsize, the larger the estimates of reach, response rate, and duration. However, since the actual promotion duration will be negatively related to the reach and response rate of the promotion, consumers may tend to overestimate how much time they have to redeem. If this reasoning holds, we would expect that providing consumers with the actual reach of a promotion should diminish the anchoring effect.

We conducted an exploratory study using a 3 x 2 between-subjects design with redemption cap size (40, 400, and 4000) and promotion reach (known vs. unknown) as between-subjects factors. Participants were 145 undergraduate business students and were randomly assigned to one of the six experimental conditions. Prior to receiving the stimulus promotions, the participants were provided with a brief scenario asking them to imagine that they had just received a coupon via email from MostlyPosters.com. The stimulus promotions were for a 30% discount off any poster, and contained one of the three redemption cap size treatments. Participants in the known market size conditions were told that the promotion was only sent to the 9000 undergraduate students of their university. Those in the unknown market size condition were not provided with any information regarding the reach of the promotion. Participants evaluated the coupon and were asked a series of questions regarding purchase intent, deal evaluation, promotion reach, and redemption timing.

When the promotional reach was unknown, participants’ estimates of promotional reach (9500, 114000, 128000), response rate (.147, .248, .300), and duration (51.7 hours, 84.3 hours, 161.5 hours) all increased with redemption cap size, respectively. We also scaled the participants’ self-reported redemption timing estimates (e.g., the percent that said they would redeem in 1 minute, the percent that said they would redeem in 1 hour, etc.) to their estimates of promotional reach and response rates. This allowed us to determine actual expiration times in each condition by cumulating the number of responses. We found that in all three redemption cap size conditions, the actual coupon would expire in less than five minutes. Given that the participants’ estimates of response rates may be overestimated, we ran the same
analysis using only the proportion of subjects that stated they would definitely redeem this coupon (8.2%). We found that the 40 cap promotion would still expire in less than 5 minutes, but that the 400 and 4000 cap promotions would expire in approximately one hour. The results are not significantly different when even more conservative estimates of response rates are used. Thus, we conclude that at all levels of redemption cap size, participants grossly overestimated the duration of the promotion.

By comparison, when the promotional reach was known, participants’ estimates of response rates (.116, .247, .309) and duration (14.7, 25.6, 157.9) increased with redemption cap size, respectively. Although the estimated duration increases with redemption cap size, the actual estimates are significantly smaller in this condition than for the unknown promotional reach conditions. However, the estimated response rates for the known and unknown promotional reach conditions differ only slightly with the largest difference between the estimates for a redemption cap size of 40. Thus, providing participants with the actual promotional reach removed the anchoring effects from estimates of promotional reach but not from estimates response rates and duration. Computing the actual redemption time as before, we again find that the redemption cap of 40 would expire in less than 5 minutes. However, the redemption cap of 400 would take 1.5 hours to expire and the redemption cap of 4000 would only be half used after two months. Again if we use a more conservative estimate of response rate (8.2%), the redemption cap of 40 would still expire in less than 5 minutes, while redemption caps of 400 and 4000 would take 10 hours and over 2 months to expire, respectively. Thus, while the estimated expiration time is overestimated for the redemption caps of 40 and 400 (14.7 hours vs. <5 minutes and 25.6 hours vs. 10 hours, respectively), the expiration time for the redemption of 4000 is grossly underestimated (157.9 hours vs. more than 1440 hours). Additionally, subjects reported greater confidence in their ability to redeem the coupon as the redemption cap increased, regardless of whether the promotional reach was known or unknown.

It would appear that estimates of duration are disconnected from estimates of reach and response rates. In the examples mentioned earlier, Solstice sold out within hours of the show ending. Many more continued to call for days after the promotion expired. Similarly for the health club; this promotion ran out in the second day yet consumers tried to redeem the offer weeks later. However, questions still remain. We intend to extend this research to examine the impact of risk aversion on estimation. Additionally, we will investigate perceptions of fairness, scarcity, and blame.

References


The Role of Expectations in Set-Size Evaluations
Richard Hanna, Boston College, USA
Scott Swain, Boston University, USA
S. Adam Brasel, Boston College, USA

Extended Abstract
There has been a surge of research in recent years re-examining the effects of choice set size and alternative proliferation on a number of issues from choice confidence to perceived responsibility. Most of this research uses objectively limited and overwhelming sets in a direct manipulation design. But what effect do expectations of set size have on set-size perceptions? While research has begun to examine how set sizes affect expectations (Diehl and Poynor 2005), there remains a need for research exploring how expectations can affect judgments of set size (Van Raaij 1991).

It is proposed that set-size expectations create a sort of anchor. If one expects a limited set, the expectation is bounded by two, the smallest set possible. If one expects an extensive set, the expectation is bounded by an estimate of the total number of products available in that category, usually a quite high number. When the actual set size is truly limited or very extensive, reality should win out over expectations and the set should be perceived accurately as the set size should be near one of these perceptual boundaries and thus easy to put into a particular perspective. However, when the actual set size is of a moderate nature, the set will appear less like the expectation being held. Will the moderate set be assimilated or contrasted with expectations (Biernat 2005)? Prior work has suggested a general trend towards contrast instead of assimilation, but this was conducted in a more hedonic setting and did not explore set sizes (Zellner, Stickhouser, Tornow 2004). To explore this issue, an online study was conducted using choice sets of digital cameras at a fictitious online electronics store. 106 undergraduates at a large east-coast private university participated in the experiment. A 2*3 (expectations by set size) fully-crossed factorial design was conducted. Before exposure to the online choice set of digital cameras, participants were randomly assigned to an expectation condition and read a page telling them “Please note, the product selection at this online store is known to be very limited (extensive), and you will probably have to pick from only a few (a very large number) of alternatives.” Then participants were exposed to a set of digital cameras that was very limited at four alternatives, moderate at twelve alternatives, or very extensive at twenty-four
alternatives. These set sizes had been extensively pre-tested and shown to be considered too small and quite limiting (four), an average or moderate number of products in this category (twelve), or far too large and overwhelming (twenty-four). After making their selection, participants were asked to record the degree to which they found the set restrictive, overwhelming, difficult to choose from, incomplete, and the likelihood they selected a non-optimal choice (all multi-item Likert scale measures collapsed into constructs). The data was then analyzed by way of a multivariate ANOVA, and planned-contrast t-tests for specific comparisons.

First, there was a main effect for expectations on all outcome variables (F>8 for all, p<.01 for all). Planned-contrast t-tests reveal that participants who expected an extensive set viewed choice sets in general as more incomplete (p<.01) and restrictive (p<.05), less overwhelming (p<.01), and felt they were less likely to pick a suboptimal choice (p<.05) than participants who expected a sparse set. There was also a significant expectations by set-size interaction effect in the ANOVA (F>5 for all, p<.01 for all). Planned-contrast t-tests here reveal that the effect of expectations is actually largely confined to the moderate set size. When the actual set-size is limited or extensive, no differences between extensive and limited expectations participants on the outcome variables is significant above .05. When the actual set-size is moderate, however, all outcome variables are significant.

Consistent with our propositions, the pattern of results in this moderate-set conditions suggests that the actual set size is viewed in contrast to expectations, rather than assimilated to expectations (Fiske & Taylor 1984). When participants were expecting a limited set, they view the moderate set as having reduced incompleteness and reduced choice restriction, but elevated error likelihood and increased perceptions of being overwhelmed. In short, the results looked not significantly different from when the limited expectations participants viewed the actually extensive set (all p>.05), but significantly different on all variables from the actually limited set (all p<.02). A similar pattern emerges for the extensive set expectations participant. When expecting an extensive set, participants view the moderate set as very restricted and incomplete, but not overwhelming with little choice error. In short, they view the moderate set as not significantly different from the actually limited set (all p>.05), but significantly different from the actually extensive set (all p<.01).

In summary, when participants viewed a truly limited or extensive set, reality trumped any expectation-based effects on size judgments. But when the choice set was of moderate size, participants expecting either a limited or extensive set exhibited a contrast effect, where extensive expectations made the moderate set appear limited while limited expectations made the moderate set appear extensive. This not only has implications for retailers and consumers in how they react to common moderate set sizes, research suggests that the act of expectation disconfirmation itself can lead to lowered satisfaction regardless of the positivity of the outcome (Bennet, Ordonez & Gilliland 2003).

References
Diehl, Kristin and Cait Poynor,(2005), “Great Expectations?! The Effect of Assortment Size on Expectations, Choice, and Satisfac-
tion,” presentation at the European Association for Consumer Research Conference, Goteborg, Sweden.
Biernat, Monica (2005), Standards and Expectancies: Contrast and Assimilation in Judgments of Self and Others, Psychology Press,
New York.
Behavior, eds. T. Robertson & H. Kassarjian, Prentice-Hall, USA, 401-418.

Investigating the Additive Effects of Demographics, Lifestyles, and Personality on Physical Activity Levels in Adult Consumers
Stephen R. McDaniel, University of Maryland, USA
Dae Hee Kwak, University of Maryland, USA

Extended Abstract
Obesity and its related health problems are a growing concern in the U.S. and abroad, which has prompted a call for transformative consumer research in this area (Mick, 2006). For example, it was recently reported that nearly 40% of adult consumers in America are sedentary and 65% of adults are overweight (body mass index ≥ 25.0 kg/m²) (National Center for Health Statistics, 2005). Given that engaging in regular vigorous physical activity is not only beneficial for the general wellbeing of consumers but also important in terms of the related financial cost to government and businesses, it is imperative for health marketing professionals to understand various determinants of physical activity levels. The objective of the current study is to investigate the additive effects of demographics (e.g., age, gender, and ethnicity) lifestyle (e.g., TV watching, smoking, and drinking) and personality (e.g., sensation seeking) on physical activity levels, which can have implications to effective segmentation and targeting of health communications about the latter.

A growing body of evidence suggests that age and gender are the most consistent determinants of physical activity levels in adults (Caspersen, Pereira, & Curran, 2000; Ingram, 2000; Nelson, Gordon-Larsen, Adair, & Popkin, 2005; Sallis, 2000). Studies have found males tend to exercise more vigorously than females and overall exercise levels decline with age. Age-related decline in exercise levels has been well supported in non-human studies as well, indicating that age-related decline has a strong biological basis (Ingram, 2000; Sallis, 2000). In addition to age and gender, ethnicity has also found to be related with exercise levels in adults. Caucasians are reported to be more physically active than non-Caucasians (Caspersen & Merritt, 1995). Lifestyles characterized by certain types of consumption