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How Time Restrictions Work: the Roles of Urgency, Anticipated Regret, and Deal Evaluations

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HOW TIME RESTRICTIONS WORK: THE ROLES OF URGENCY, ANTICIPATED REGRET, AND DEAL EVALUATIONS Scott D. Swain Assistant Professor Department of Marketing School of Management Boston University 595 Commonwealth Avenue Boston, MA 02215 Phone: 617-353-5978 FAX: 617-353-4098 swain@bu.edu Richard Hanna Assistant Professor Department of Marketing Carroll School of Management Boston College 140 Commonwealth Avenue Chestnut Hill, MA 02146 Phone: 617-552-3095 FAX: 617-552-6677 hannari@bc.edu Lisa J. Abendroth Assistant Professor Department of Marketing School of Management Boston University 595 Commonwealth Avenue Boston, MA 02215 Phone: 617-353-4412 FAX: 617-353-4098 lisaa@bu.edu ABSTRACT The authors reconcile conflicting findings in the promotions literature regarding time restrictions. Using hypothetical and real coupons, the authors show that shorter time restrictions lower purchase intent by lowering deal evaluations while also increasing purchase intent by increasing consumers' sense of urgency. The authors also demonstrate that anticipated regret plays a more complex role in consumers' responses to promotions than previously believed.

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How Time Restrictions Work: The Roles of Urgency, Anticipated Regret, and Deal Evaluations

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EXTENDED ABSTRACT

Consumer promotions are a major marketing tool and have long been the focus of academic research. Recent efforts have focused more on the process by which discount size, and especially time restrictions, influence consumer responses to promotions. To date, deal evaluation has been introduced as the primary process mechanism for promotions, incorporating both discount size and any restrictions. However, evidence on the effect of time restrictions on deal evaluation has been mixed. Some research shows a negative effect of restrictions on deal evaluation (Sinha, Chandran, and Srinivasan 1999), while other research suggests a positive effect (Inman, Peter, and Raghubir 1997). Thus, the primary purpose of this paper is to extend the literature on promotional restrictions by reconciling these findings.

We develop a model in which purchase intentions during a promotion are driven by three factors: deal evaluation, anticipated regret, and urgency. We predict that shorter time restrictions lower purchase intent by lowering deal evaluations, and we provide evidence that this occurs because of greater perceptions of inconvenience (Sinha et al. 1999). Meanwhile, we also predict that shorter time restrictions increase purchase intent by creating a sense of "urgency," which we define as a felt need to initiate and complete an act in the immediate or near future.

For completeness of the model, we replicate earlier research in predicting that the effect of discount size on purchase intentions is mediated by deal evaluation (Inman et al. 1997). However, we go on to argue that deal evaluations impact purchase intent not only directly, but also indirectly by affecting anticipated regret. That is, discounts affect consumers' purchase intentions by affecting not only the perceived economic outcomes of redemption, but also the emotional outcomes of redemption. Further, we predict that more favorable deal evaluations and greater anticipated regret both serve to heighten a consumer's sense of urgency. In sum, we suggest that discount levels and time restrictions impact purchase intentions by affecting consumers' rational (deal evaluation), emotional (anticipated regret), and visceral (urgency) responses to promotions.

We conducted two studies in order to test our model. In Study 1 (N=111), we used a 2 (Discount Level: Low, High) x 2 (Time Restriction: Low, High) between subjects design. The promotional context was a simulated coupon for admission to one movie at a nearby theater. The results provide support for our model. Specifically, the constructs demonstrated good convergent and discriminant validity, the model fit the data very well, and all predicted paths were significant. Additionally, hierarchical model comparisons confirmed all of the full and partial mediations implied by the model diagram. Thus, we document the fact that shorter time restrictions can have both a negative effect on purchase intent by lowering deal evaluations and a positive effect on purchase intent by increasing the sense of urgency. We also show that anticipated regret plays a more complex role than previously believed, acting to partially mediate the effect of deal evaluation on both urgency and purchase intent.

In Study 2 (N=166), the promotional context was changed to that of a real coupon for a sandwich at a school-run sandwich shop. This allowed us to address the concern that movie theaters activate

social, rather than individual, decision making processes. The design was the same as in study 1 except that a measure of inconvenience was included to provide greater evidence for the negative effect of time restrictions on deal evaluation. Finally, external validation for the model was provided by measuring actual redemption behavior.

Study 2 replicated the results found in study 1. All paths in the model were supported and all three proposed mediators of the effects of discount level and time restriction on purchase intent (deal evaluation, anticipated regret, and urgency) behaved as expected. In addition, redemption behavior was predicted by the variables in the model; participants who redeemed the coupon had higher deal evaluation, greater anticipated regret, slightly greater urgency, and greater purchase intentions.

Perhaps the most interesting contribution of our research is a heightened understanding of the dual role played by time restrictions in the formation of purchase intentions. In its negative role, a time restriction is seen by consumers as an inconvenience, thereby diminishing deal evaluations and its consequences (anticipated regret, urgency, and purchase intention). In its positive role, a time restriction creates a sense of urgency in consumers, thereby providing an impetus for action that feeds directly into purchase intentions

Another key contribution of this work is the introduction of a new process model where the terms of the promotion (i.e., discount size and time restriction) affect purchase intentions through three distinct processes: deal evaluation, anticipated regret, and urgency. Comparing the adjusted R-squared values from our full model to a reduced regression model with only deal evaluation provides evidence that urgency and anticipated regret add significant explanatory power above and beyond deal evaluation. Specifically, in study 1, adjusted $\rm R^2$ increased from .329 to .480 ($\rm F_{2,\,107}$ =16.875, p<.001) and in Study 2 the adjusted $\rm R^2$ increased from .297 to .381 ($\rm F_{2,\,162}$ =12.055, p<.001).

Greenleaf and Lehmann (1995) proposed that consumers delay decisions because they are too busy–suggesting that marketers should use longer time limits to accommodate consumers' busy schedules. However, as we have shown, shorter time limits create a greater sense of urgency thereby leading to higher purchase intentions. Perhaps giving consumers more time leads only to more delay and, in effect, the shorter time limit causes the promotion to gain priority on consumers' "to do" lists. However, caution is needed since, as was shown in Study 2, too short of a time limit can also increase perceptions of inconvenience, leading to lower deal evaluations and ultimately lower purchase intent.

REFERENCES

NCH 2001 Trend Report (2001), "CPGs Change Coupon Media Mix & Purchase Requirements," Contact: Charles K. Brown, March 15, 2002, [available at http://www.couponpros.org/html/4_youshouldknow/ShouldNCH2001Trends.pdf].

NCH 2003 Trend Report (2003), "CPG Coupon Distribution

Rebounds," Contact: Charles K. Brown, April 9, 2003, [available at http://www.nchmarketing.com/us/news/2003NCHTrendsPressReleaseFinal.pdf].

- PMA Press Release (2004), "Promotion Marketing Association Releases 2003 Coupon Stats in Conjunction With National Coupon Month," August 30, 2004, [available at http://www.pmalink.org/about/press releases/release69.asp].
- Alba, Joseph W., Carl F. Mela, Terence A. Shimp, and Joel E. Urbany (1999), "The Effect of Discount Frequency and Depth on Consumer Price Judgement," *Journal of Consumer Research*, 26 (September), 99-114.
- Anderson, Craig A. and Brad J. Bushman (1997), "External Validity of 'Trivial' Experiments: The Case of Laboratory Aggression," Review of General Psychology, 1 (1), 19-41.
- Anderson, James C. and David W. Gerbing (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-step Approach," *Psychological Bulletin*, 103 (3), 411-423.
- Arkes, Hal R., Yi-Han Kung, and Laura Hutzel (2002), "Regret, Valuation, and Inaction Inertia," Organizational Behavior and Human Decision Processes, 87 (March), 371-385.
- Arnold, M. B., and S. J. Gasson (1954), "Feelings and Emotions as Dynamic Factors in Personality Integration," in M. B. Arnold and S. J. Gasson (eds.), *The Human Person* (p. 294–313), New York: Ronald.
- Baron, Reuben M. and David A. Kenny (1986), "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal of Personality and Social Psychology*, 51 (6), 1173-1182.
- Bawa, Kapil and Robert W. Shoemaker (1987), "The Effects of a Direct Mail Coupon on Brand Choice Behavior," *Journal of Marketing Research*, 24 (4), 370-376.
- Blattberg, Robert C. and Scott A. Neslin (1990), *Sales Promo*tions: Concepts, Methods, and Strategies, Prentice Hall: New Jersey.
- Blattberg, Robert C., Richard Briesch, and Edward J. Fox (1995), "How Promotions Work," *Marketing Science*, 14 (3), G122-132.
- Bollen, Kenneth A. (1989), Structural Equations with Latent Variables, New York: John Wiley & Sons.
- Cialdini, Robert B. (1993), *Influence: the Psychology of Persuasion*, William Morrow: New York (Revised Edition).
- Cooke, Alan, Tom Meyvis, and Alan Schwartz (2001), "Avoiding Future Regret in Purchase Timing Decisions," *Journal of Consumer Research*, 27 (March), 447-459.
- Damasio, A. R. (1994), *Descartes' Error*, London: MacMillan.
 Damasio, Antonio R. (2000), "A Second Chance for Emotion," in R. D. Lane and L. Nadel (eds.), *Cognitive Neuroscience of Emotion* (p. 12–23), New York: Oxford University Press.
- Darke, Peter R. and Jonathan L. Freedman, (1995), "Nonfinancial Motives and Bargain Hunting," *Journal of Applied Social Psychology*, 25, 1597–1610.
- Darke, Peter R. and Jonathan L. Freedman, and Shelly Chaiken (1995), "Percentage Discounts, Initial Price and Bargain Hunting: A Heuristic-Systematic Approach to Price Search Behavior, *Journal of Applied Psychology*, 80, 580–586.
- Dhar, Ravi and Stephen M. Nowlis (1999), "The Effect of Time Pressure on Consumer Choice Deferral," *Journal of Consumer Research*, 25 (March), 369-384.
- Feick, Lawrence L. and Linda L. Price (1987), "The Market Maven: A Diffuser of Marketplace Information, *Journal of Marketing*, 51 (1), 83–97.
- Fornell Claes, and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (February), 39-50.

- Frijda, Nico H. (1986), *The Emotions*, Cambridge, England: Cambridge University Press.
- Frijda, Nico H., Peter Kuipers, and Elisabeth ter Schure (1989), "Relations Among Emotion, Appraisal, and Emotional Action Readiness," *Journal of Personality and Social Psychology*, 57 (2), 212–228.
- Gilbert, Daniel, Carey Morewedge, Jane Risen, and Timothy Wilson (2004), "Looking Forward to Looking Backward: The Misprediction of Regret," *Psychological Science*, 15 (5), 346-350.
- Greanleaf Eric A. and Donald R. Lehmann (1995), "Reasons for Substantial Delay in Decision Consumer Making," *Journal* of Consumer Research, 22 (September), 186-199.
- Gupta, Sunil and Lee G. Cooper (1992), "The Discounting of Discounts and Price Thresholds," *Journal of Consumer Research*, 19 (December), 401-411.
- Hanna, Richard C., Paul D. Berger, and Lisa J. Abendroth (2005), "Optimizing Time Limits in Retail Promotions: an Email Application," *Journal of the Operational Research* Society, 56 (1), 15-24.
- Hetts, John J., David S. Boninger, David A. Armor, Faith Gleicher, and Ariel Nathanson (2000), "The Influence of Anticipated Counterfactual Regret on Behavior," *Psychology & Marketing*, 17 (4), 345-368.
- Inman, J. Jeffrey and Leigh McAlister (1994), "Do Coupon Expiration Dates Affect Consumer Behavior?" *Journal of Marketing Research*, 31(3), 423-428.
- Anil C. Peter, and Priya Raghubir (1997), "Framing the Deal: The Role of Restrictions in Accentuating the Deal Value," *Journal of Consumer Research*, 24 (June), 68-79.
- and Marcel Zeelenberg (2002), "Regret in Repeat Purchase versus Switching Decisions: The Attenuating Role of Decision Justifiability," *Journal of Consumer Research*, 29 (June), 116-128.
- Kalwani, Manohar U. and Chi Kin Yim (1992), "Consumer Price and Promotion Expectations: An Experimental Study," *Journal of Marketing Research*, 29 (1), 90-100.
- Kardes, Frank R. (1996), "In Defense of Experimental Consumer Psychology," *Journal of Consumer Psychology*, 5 (3), 279-296.
- Keppel, Geoffrey (1991), *Design and Analysis: A Researcher's Handbook*, Englewood Cliffs, NJ: Prentice-Hall.
- Kline, Rex B. (2005), *Principles and Practice of Structural Equation Modeling*, New York: The Guilford Press.
- Krishna, Aradna (1994), "The Effect of Deal Knowledge on Consumer Purchase Behavior," *Journal of Marketing Resarch*, 31(1), 76-91.
- and Z. John Zhang (1999), "Short- or Long-Duration Coupons: The Effect of the Expiration Date on the Profitability of Coupon Promotions," *Management Science*, 45 (August), 1041-1056.
- Landy, Frank J., Halen Rastegary, Julian Thayer, and Caran Colvin (1991), "Time Urgency: The Construct and Its Measurement," *Journal of Applied Psychology*, 76, 644-657.
- Larrick, Richard P. (1993), "Motivational Factors in Decision Theories: The Role of Self-Protection," *Psychological Bulletin*, 113, 440-450.
- Lemon, Katherine N., Tiffany Barnett White and Russell S. Winer (2002), "Dynamic Customer Relationship Management: Incorporating Future Considerations into the Service Retention Decision," *Journal of Marketing*, 66 (1), 1-14.

- Li, Tiger and Roger J. Calantone (1998), "The Impact of Market Knowledge Competence on New Product Advantage: Conceptualization an Empirical Examination," *Journal of Marketing*, 62 (October), 13-29.
- Lynn, Michael (1989), "Scarcity Effects on Desirability: Mediated by Assumed Expensiveness?" *Journal of Economic Psychology*, 10, 257-274.
- MacKinnon, David P., Ghulam Warsi, and James H. Dwyer (1995), "A Simulation Study of Mediated Effect Measures, *Multivariate Behavioral Research*, 30 (1), 42-62.
- Malhotra, Naresh K., Mark Peterson, and Susan Bardi Kleiser (1999), "Marketing Research: a State of the Art Review and Directions," *Journal of the Academy of Marketing Science*, 27 (2), 160-183.
- Mandler, George (1984), Mind and Body: Psychology of Emotion and Stress, New York: Norton.
- Mela, Carl F., Sunil Gupta, and Donald Lehmann (1997), "The Long-term Impact of Promotion and Advertising on Consumer Brand Choice," *Journal of Marketing Research*, 34 (September), 248-261.
- Mellers, Barbara, Alan Schwartz, and Ilana Ritov (1999), "Emotion-Based Choice," *Journal of Experimental Psychology: General*, 128 (3), 332-345.
- Netemeyer, Richard G., William O. Bearden, and Subhash Sharma (2003), *Scaling Procedures: Issues and Applications*, Thousand Oaks, CA: Sage Publications.
- Niedrich, Ronald W. and Scott D. Swain (2003), "The Influence of Pioneer Status and Experience Order on Consumer Brand Preference: A Mediated-Effects Model," *Journal of the Academy of Marketing Science*, 31 (Fall), 468-480.
- Nunes, Joseph C. and C. Whan Park (2003), "Incommensurate Resources: Not Just More of the Same," *Journal of Marketing Research*, 40 (February), 26-38.
- Oatley, Keith and Elaine Duncan (1992), "Incidents of Emotion in Daily Life," in K. T. Strongman (ed.), *International Review of Studies of Emotion* (Vol. 2, p. 249–293), Chichester, England: Wiley.
- Raghubir, Priya, J. Jeffrey Inman, and Hans Grande (2004), "The Three Faces of Consumer Promotions," *California Management Review*, 46 (4), 23-42.
- Rastegary, Haleh and Frank J. Landy (1993), "The Interactions Among Time Urgency, Uncertainty, and Time Pressure," in Ola Svenson and A. John Maule (eds), *Time Pressure and Stress in Human Judgment and Decision Making*, New York: Plenum Press, 217-239.
- Reibstein, David J. and Traver, Phyllis A. (1982), "Factors affecting Coupon Redemption Rates," *Journal of Marketing*, 46 (Fall), 102-123.
- Roberts, Mary Lou and Paul D. Berger (1999), *Direct Marketing Management*, 2nd edition, Upper Saddle River, NJ: Prentice Hall.
- Roseman, Ira J., Cynthia Wiest, and Tamara S. Swartz (1994), "Phenomenology, Behaviors, and Goals Differentiate Discrete Emotion, *Journal of Personality and Social Psychology*, 67 (2), 206–221.
- Schachter, Stanley and Jerome Singer (1962), "Cognitive, Social, and Physiological Determinants of Emotional State," *Psychological Review*, 69, 379–399.
- Schindler, Robert M. (1998), "Consequences of Perceiving Oneself as Responsible for Obtaining a Discount: Evidence for Smart-Shopper Feelings," *Journal of Consumer Psychology*, 7, 371–392.

- Shoemaker, Robert W. and Vikas Tibrewala (1985), "Relating Coupon Redemption Rates to Past Purchasing of the Brand," Journal of Advertising Research, 25 (October/November), 40-47
- Simonson, Itamar (1992), "The Influence of Anticipating Regret and Responsibility on Purchase Decisions," *Journal of Consumer Research*, 19 (June), 105-118.
- Sinha, Indrajit, Rajan Chandran, and Srini S. Srinivasan (1999),"Consumers Evaluation of Price and Promotional Restrictions? A Public Policy Perspective," *Journal of Public Policy and Marketing*, 18 (1), 37-51.
- Stephenson, Michael T. and R. Lance Holbert (2003), "A Monte Carlo Simulation of Observable versus Latent Variable Structural Equation Modeling Techniques," *Communication Research*, 30, 332-354.
- Sugden, Robert (1985), "Regret, Recrimination, and Rationality," *Theory and Decision*, 19, 77-99.
- Tomkins, Silvan (1962), Affect, Imagery, Consciousness: Vol. 1, The Positive Affects, New York: Springer.
- _____(1963), Affect, Imagery, Consciousness: Vol. 2, The Negative Affects, New York: Springer.
- Tversky, Amos and Eldar Shafir (1992), "The Disjunction Effect in Choice Under Uncertainty," *Psychological Science* 3, 305-309
- Tykocinski, Orit E., Thane S. Pittman, and Erin E. Tuttle (1995), "Inaction Inertia: Foregoing Future Benefits as a Result of an Initial Failure to Act," *Journal of Personality and Social Psychology*, 68, 793-803.
- Waller, Mary J., Jeffrey M. Conte, Christina B. Gibson, and Mason A. Carpenter (2001), "The Effect of Individual Perceptions of Deadlines on Team Performance," *Academy of Management Review*, 26, 586-600.
- Zeelenberg, Marcel, Jane Beattie, Joop van der Plight, and Nanne K. de Vries (1996), "Consequences of Regret Aversion: Effects of Expected Feedback on Risky Decision Making," Organizational Behavior and Human Decision Processes, 65 (2), 148-158.