

# 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 Raghurir 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 R<sup>2</sup> increased from .329 to .480 ( $F_{2, 107}=16.875, p<.001$ ) and in Study 2 the adjusted R<sup>2</sup> increased from .297 to .381 ( $F_{2, 162}=12.055, p<.001$ ).

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.

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