Time-Inconsistent Preferences Vs. Price Discrimination: How Do Firms Increase Profits Via Mail-In Rebate Promotions?

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It is widely believed that mail-in rebates are used by marketers to improve profits at the expense of consumers who fail to redeem them. An alternative view is that rebates act as a price discrimination tool which segments the market according to consumer price sensitivity (Narasimhan 1984). In light of these two explanations for breakage, it is unclear which mechanism actually takes place in generating profits via mail-in rebate program. This finding suggest that the ability of marketers to capitalize on time-inconsistent preferences is limited and the greatest potential for profit gains lies in optimizing the price discrimination mechanism.

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EXTENDED ABSTRACT

Mail-in rebates are widely believed to be employed as a marketing tool because they motivate purchase, yet result in consumers failing to redeem the rebate offer (Bulkeley 1998). By some estimates, nearly 40 percent of all rebates never get redeemed because of such “breakage” (Grow 2005). Two streams of literature offer an explanation for this phenomenon. The first literature stream implies that consumer valuation of the costs and benefits of rebates changes over the time between purchase and redemption. Accordingly, a rebate that may initially appear worthwhile is perceived to be excessively costly to redeem after the purchase. Such time-inconsistent preferences are exemplified by several theories including: hyperbolic discounting (cf. O’Donoghue and Rabin 1999; Hoch and Loewenstein 1991; Soman 1998), time-construal theory (Trope and Liberman 2003), resource slack theory (Zauberman and Lynch 2005), procrastination (Silk 2005) and future optimism (Mowen and Mowen 1991). In contrast, the second literature stream implies that consumers self-select into groups characterized by their intention to redeem. Hence, rebates act as a price discrimination tool that attracts certain types of people who intend to redeem, but yet ensure that those who have no intention to redeem pay full price (Chen, Moorthly, and Zhang 2005; Lu and Moorth 2007). Thus, the appearance of ‘breakage’ may simply reflect the group of high-valuation consumers who never intended to redeem in the first place.

In light of these two explanations for breakage, the efficacy of time-inconsistent preferences and price discrimination to explain rebate profitability is tested using an actual rebate program with university students. In the experimental setting, subjects were given the choice of obtaining an immediate cash reward or the possibility of a greater cash reward upon completion of rebate offer. This is analogous to the situation where consumers choose between two products in the market place: one with a low price and another with a higher initial price but with a lower final price obtained via a mail-in rebate offer.

Since the greater cash reward was contingent upon completing the redemption requirements in the future, this choice represents the same type of forward decision making required in an actual rebate program. Since no accompanying product was offered for sale, this study design focuses exclusively on the rebate decision process. A pretest determined the amount of cash reward and rebate effort that yielded a statistically significant number of redeemers. In the main experiment, the cash reward and rebate effort were manipulated at levels close to those used in the pre-test to ensure similar response rates. A follow-up questionnaire was conducted to measure subjects’ individual characteristics relevant to the study. In addition, rebate profitability was assessed by testing whether the observed redemption rate significantly exceeded the requisite ‘threshold’ for profitability. Finally, for those who accepted the rebate offer, an additional rebate offer was made to assess whether the subjects “learned” from their previous redemption experience.

This manuscript experimentally demonstrates that although both time-inconsistent preferences and the price discrimination mechanisms are present in a rebate program, the conditions which increase the occurrence of time-inconsistent preferences decreases the size of the intended redeemer segment and thereby limits rebate profitability. In addition, the ability of sellers to profit via this route is further limited to the extent that consumers have many opportunities to learn about their rebating propensity across many product categories (Hoch and Deighton 1989). In the follow-up study of those who participated in the experiment, subjects who had accepted the rebate offer were given the opportunity to make an additional choice between accepting an immediate cash reward and the possibility of greater reward in the future through a second rebate offer. In comparing the choice of the subsequent rebate offer between subjects who redeemed the first offer and those who did not redeem the first offer, it was found that prior success with rebates significantly increased the likelihood of choosing the subsequent rebate offer. Specifically, nearly 82% of those who had redeemed the first offer choose to accept the second rebate offer. In comparison, only 15% percent of those who failed at rebate redemption chose to accept the second rebate offer. This suggests that the subjects had learned substantially from their prior (failed) experiences in accepting a rebate. This finding further supports the main results that marketers are limited in their long-term ability to take advantage of time-inconsistent preferences to improve rebate profitability.

This study also finds substantial evidence for the premise that rebates serve as a price discrimination mechanism. Specifically, the construct of rebate involvement had a significant impact on rebate choice even after controlling for face value and redemption effort. Moreover, this trait is positively correlated with price consciousness and deal proneness, thereby providing evidence for the basic preference structure implicit in the price discrimination mechanism. The results here suggest that marketers may wish to employ rebates in markets characterized by heterogeneity in price elasticity. Furthermore, it may be premature to invoke regulation to curb the use of rebates if rebates simply act as another price discrimination tool.

The current experimental design did not allow us to consider the case where the rebate offers bring new low valuation customers into the market. If these customers are induced to purchase a product in the expectation of receiving rebates but fail to redeem, rebate profitability may indeed increase. However, given the situation where the low-valuation customers typically tend to claim rebates, the incremental sales may not guarantee higher profits. Nonetheless, we admit this is one of the limitations of the present study and leave this issue to future research.

REFERENCES


