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Price discrimination through online couponing: Impact on likelihood of purchase and profitability

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Abstract

Oliver and Shor [2003, Digital redemption of coupons: Satisfying and dissatisfying effects of promotion codes. Journal of Product and Brand Management 12(2), 121–134] provide data suggesting that Web sites prompting customers to enter a "promotion code", a digital version of the coupon, may unwittingly be losing customers who otherwise would be willing to purchase. They suggest that the act of requesting such a code hints at the existence of price promotions that may be unavailable to the current shopper, potentially diminishing one's likelihood of purchase. We extend their experiment to address the issue of price discrimination and profitability in this context. Our results demonstrate that this diminished likelihood of purchase has adverse effects on profitability and offsets any gains from market segmentation. Further, we analyze a firm's ability to deliver coupons to targeted market segments successfully, given the availability of such coupons on multiple Web sites outside of the retailer's control. We observe that the existence of coupon repositories distorts efficient price discrimination, leading to segmentation of consumers not along dimensions of price sensitivity but of technical competence. These results have managerial implications for those considering online couponing policies.

JEL classification: L12; M31

PsycINFO classification: 3900

Keywords: Web promotions and coupons; Willingness to pay and consumer behavior; Segmentation and price discrimination

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1. Introduction

Coupons permit a retailer to price discriminate by selling the same good or service to different consumers at varying prices. If a consumer does not provide a coupon at check-out, a retailer is unlikely to mention the existence of a discount. This very prompt could encourage a consumer willing to buy at that moment to delay purchase and seek out the discount, resulting in added stress on customer service call centers and complaint resources (Internet Retailer, 2003), or hint that others may be getting a better deal (Feinberg, Krishna, & Zhang, 2002; Rich, 2003). By pointing out the existence of price promotions, the very act of *prompting* for a coupon – a common online practice – may alter a consumer's willingness to complete the purchase.

Further distinguishing online coupons from their traditional paper cousins is the existence of new distribution channels outside of retailers' control. Traditionally, coupons find their way into consumer hands either through targeting of specific customer bases (e.g.,Chen, Narasimhan, & Zhang, 2001) or through self-selection by placement into newspapers or other outlets (e.g., Moorthy, 1984; Narasimhan, 1984). Web coupon repositories – independent Web sites aimed solely at providing coupon listings – allow anyone to obtain existing discounts. For example, one such site, Flamingo World, touts that its staff "spend several hours each day scouring the internet for these deals so that you don't have to!"[1]

Oliver and Shor (2003) have shown that the traditional web design, whereby consumers are prompted for a coupon code, can have adverse effects on consumer reactions, especially for those not having a code. This prompting requirement in online environments is yet another facet of the effects of web design on many and varied consumer responses (e.g., Drèze & Zufryden, 1997; Wolfinbarger & Gilly, 2003). As a result, web managers are faced with a dilemma if they wish to offer discounts to those with lower valuations of their product. On the one hand, the benefits of market segmentation and price discrimination could enhance purchase among consumers needing added incentives and, on the other, the very practice of price discrimination on the web may frustrate those current customers who are less likely to have web coupons. In the context of a behavioral experiment, we seek to estimate the offsetting tendencies of these countervailing effects through the development of an analytic framework.

We address directly the magnitude of the online couponing conundrum in terms of its specific impact on profit. In this paper, we add to the literature in the following manner. First, we analyze purchase probabilities as functions of both the respondents' stated willingness to pay and the experimental condition. This analysis allows us to gauge how sensitive is the link between consumer surplus and purchase intention to our fairness manipulations. Second, we assess the profit implications of incorporating non-neoclassical economic assumptions (fairness in the present case) into the classical model. Lastly, we present the first analysis known to the authors of the motivations behind web coupon search. We consider specifically if acquisition utility (consumer surplus) is subordinate to more practical considerations of web knowledge and technical competence.

[1] "How to Use Online Coupons," Flamingo World, http://www.flamingoworld.com/help, Web accessed 11/17/2004.