



Discounts and consumer search behavior: The role of framing



Ralph-C. Bayer^a, Changxia Ke^{b,c,*}

^a School of Economics, University of Adelaide, North Terrace, Adelaide, SA 5005, Australia

^b Lingnan (University) College, Sun Yat-sen University, Guangzhou 510275, PR China

^c School of Economics and Finance, Business School, Queensland University of Technology, Australia

ARTICLE INFO

Article history:

Received 29 November 2012

Received in revised form 11 August 2013

Accepted 13 August 2013

Available online 22 August 2013

JEL classification:

D83

C91

Keywords:

Consumer search

Price framing

Price discounts

Competition

ABSTRACT

This paper studies the pure framing effect of price discounts, focusing on its impact on consumer search behavior. In a simple two-shop search experiment, we compare search behavior in base treatments (where both shops post net prices without discounts) to discount treatments (where either the first shop or the second shop posts gross prices with separate discount offers, keeping the net prices constant). Although the objective search problems are identical across treatments, subjects search less in discount frames, irrespective where the discount is offered. There is evidence showing that subjects only base their decisions on salient characteristics of the situation rather than on the objective price information.

© 2013 Elsevier B.V. All rights reserved.

1. Introduction

Retail-price promotions are ubiquitous in modern markets. Motivated by different marketing strategies, promotions can take various forms: in-store price discounts, coupons, mail-in rebates, everyday lowest price guarantees, etc. The promotions are usually accompanied by extensive and costly advertisement campaigns. One of the most important goals of these measures is to increase sales, and more importantly to increase sellers' profits. It is not surprising that genuine price reductions may induce a higher demand for the product. However, both economics and marketing research suggest that not only the resulting net price but also the way a price is presented might influence consumers' perceived savings from price promotion and hence their intention to purchase.¹

Inman et al., 1990 find that some customers react to promotion announcements or signals (e.g. attaching an "everyday lowest price" tag) even without further evidence that a real price cut has taken place. Similarly, Anderson and Simester, 2003 suggest that demand can be increased by more than 50% even if only a single word "sale" appears beside the price. Krishna et al., 2002 provide a meta-analysis of 20 publications on how price presentation affects consumers' perceived savings and thereby influences their probability to purchase a certain product. The study shows that the buyers' perception of the promotion value is influenced by both price-framing effects (e.g., whether a reference price is provided) and situational effects (e.g., whether the price promotion is on a national brand or a generic brand). In a fully incentivized auction experiment, Morwitz et al., 1998 find that partitioned

* Corresponding author at: Lingnan (University) College, Sun Yat-sen University, Guangzhou 510275, PR China. Tel.: +86 20 84115115.

E-mail addresses: ralph.bayer@adelaide.edu.au (Ralph-C. Bayer), changxia.ke@gmail.com (C. Ke).

¹ Price promotions may also increase profits through intertemporal price discrimination to heterogeneous consumers in terms of their valuation. Conlisk et al., 1984; Gul et al., 1986; Bagnoli et al., 1989; Sobel, 1991; Dudgey, 1996 investigate situations where monopolists can successfully and profitably discriminate. Sobel, 1984; Gale, 1993; Dana, 1998; Bayer, 2010 show that intertemporal price discrimination can also occur in more competitive markets.

prices (i.e. main price plus another charge) can increase demand. In this study, participants also recall lower prices if they were previously presented with prices containing multiple components. In a nice field experiment on eBay, [Hossain and Morgan \(2006\)](#) manipulate the opening bid and the shipping cost, while keeping the total reserve price constant. The study shows that the final sale price is higher when the opening bid is relatively low (and shipping cost are relatively high) than when the relation between opening bid and shipping cost is reversed. Using scanner data in supermarkets, [Chetty et al., 2009](#) establish that consumers respond more strongly to a tax increase if the tax is printed on the price tag than if it is added at the register.

All these studies suggest that there might be a pure price-framing effect. Our study complements the existing literature by adding a so far neglected dimension – consumer search behavior. The decision to purchase a certain good or not, typically does not only depend on the price (and its framing) in a single shop. It should also be relevant how a consumer perceives the price relative to expected prices for the same good charged by other shops (i.e., their expectation on the alternatives). A consumer will buy the good from a certain shop if it is perceived to be relatively cheap there.² If it is perceived as relatively expensive, then the shopper might visit other shops and search for a lower price as long as the associated search cost is not too high. Since price framing affects consumers' perception of net prices (established by the studies mentioned above), it can be expected that it also impacts on search decisions.

In a world where consumers are not perfectly informed about prices and have to spend time, effort and money to gather information, the way consumers search has a strong impact on the market power of firms and their pricing behavior. Search intensity (as induced by search cost, price expectations, and other things) influences the market prices in equilibrium. *Ceteris paribus*, the more consumers are inclined to search the stronger is the pressure on firms to compete on price. The more likely consumers are to search, the more consumers will have price information from different sellers. As consumers choose the seller with the lowest price they know, reducing prices will be the more effective the more search occurs. Since all sellers have the same incentives, higher search intensities lead to more competitive outcomes. Therefore, prices are usually lower and welfare is higher when search is less costly and the search intensity is higher in the market ([Stahl III, 1989](#); [Robert and Stahl III, 1993](#)). In the other extreme, search frictions can even lead to monopoly prices in equilibrium when they induce consumers not to search at all ([Diamond, 1971](#)). Hence, in theory, if consumer search behavior can be manipulated by price framing, then firms have additional market power. For this reason it is an important exercise to establish if pure price-framing effects exist in markets with search frictions.

A proper isolation of pure price-framing effects requires an approach that controls for other factors that are important when consumers make search decisions, such as the level of search cost or the expected prices in other shops selling the same product. This is very difficult to achieve in hypothetical choice studies or in the field. For this reason we use laboratory experiments. Another advantage of laboratory experiments is that we can control for important factors like buyers' valuation, quality or attributes of the product and beliefs about price distributions in the market place. The difficulty to control for these factors when using hypothetical choice data, scanner data, or data collected in the field causes laboratory experiments to be the method of choice for our specific research question. With the design aim of maintaining as much control as possible in mind we decided to employ the simplest possible environment capturing the essence of the consumer's decision problem. This should keep the decision errors stemming from confusion or faulty calculations to a minimum. As increased complexity is likely to lead to larger decision biases, our result represents a lower bound of actually existing price-framing effects. In other words, if we find price-framing effects in our very simple decision task, then they are even more likely to exist in the real world, where purchasing decisions are much more complex.

In our baseline search model, two shops sell a homogeneous product. The prices for each shop are independently drawn from known price distributions. A consumer has a given valuation for the product and wants to buy one unit of the product. The price in shop one is shown to the consumer, but the price charged in shop two is unknown, initially. The buyer has to decide on choosing one of three options: (a) buy at shop one, (b) go to shop two, pay a search cost, learn the price and buy from there or (c) stop shopping. Recalling the price at shop one (i.e., going back to shop one) after searching is not possible. In reality, the availability to recall a previously rejected price depends on various factors such as how often sellers change their prices, how costly it is to travel back to the first shop, whether the products have been sold out or not and whether consumers have sufficient memory. We excluded recall in order to make the decision problem as simple as possible and stack the deck against observing price-framing biases.

In this simple setup we present the same search task in three different ways: without any discounts, with a discount frame in shop one and with a discount frame in shop two. Equivalence of the search task across the three different framing conditions is achieved by shifting the gross price distributions to offset the discounts such that the net price distributions of both shops are the same for all frames. If subjects are unaffected by the price framing, then behavior in these three conditions should be identical. In additional treatments, we vary the net price distributions of the two shops. This variation serves as a robustness check for the framing effects if they exist. For each price frame, we have three different treatments with the expected net price in the second shop being higher, equal or lower than in the first shop. This 3×3 design allows for a clean isolation of the pure framing effect of price discounts.³

² [Jahedi, 2011](#) finds that consumers have a taste for bargains such that they are more likely to buy an item if it is displayed along with other "worse-looking" offers than if it is sold alone.

³ There exist quite some experimental studies investigating costly search behavior (e.g. [Schotter and Braunstein, 1981](#); [Braunstein and Schotter, 1982](#); [Kogut, 1990](#); [Kogut, 1992](#); [Cox and Oaxaca, 1989](#); [Cox and Oaxaca, 1992](#); [Grether et al., 1988](#); [David and Holt, 1996](#); [Abrams et al., 2000](#); [Cason and Friedman, 2003](#); [Cason et al., 2005](#); [Morgan et al., 2006](#); [Cason and Datta, 2006](#); [Cason and Datta, 2010](#); [Bayer and Ke, 2011b](#)). However, none of them, except [Bayer and Ke, 2011a](#), looks at the price-framing effects of discounts.

Download English Version:

<https://daneshyari.com/en/article/7244942>

Download Persian Version:

<https://daneshyari.com/article/7244942>

[Daneshyari.com](https://daneshyari.com)