



Research Review

The price does not include additional taxes, fees, and surcharges: A review of research on partitioned pricing ☆

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Abstract

In the past two decades, pricing research has paid increasing attention to instances where a product’s price is divided into a base price and one or more mandatory surcharges, a practice termed partitioned pricing. Recently, partitioned pricing strategies in the marketplace have become more pervasive and complex, raising concerns that consumers do not always fully attend to or process all price information, and underestimate total prices, which in turn influences their purchasing behavior. Thus, understanding how partitioned prices affect consumers is of increasing interest to consumer researchers, public policy makers, and marketing managers. This paper reviews and organizes the academic literature on partitioned pricing and proposes an agenda for future research. We focus on the psychological processes underlying partitioned pricing, to help these three constituencies understand how partitioned pricing works, the mechanisms by which it exerts its impact, and the appropriate areas where the practice may need regulation to protect consumers.

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Introduction

A considerable amount of research has studied how consumers react to prices that are divided into two or more mandatory parts and presented to consumers as a base price and one or more mandatory surcharges, a practice known as partitioned pricing (abbreviated here as PP). PP is distinct from all-inclusive pricing (abbreviated as AIP) which involves the use of single, all-inclusive price that covers all costs. Examples of PP surcharges include airline fuel surcharges, shipping and handling charges, hotel resort fees, and the buyer's premium paid by winning auction bidders.

With PP the base price and mandatory surcharges are typically associated with the purchase of a single product or service. This differentiates PP from price bundling, where consumers purchase multiple products at the same time, for one price, and cannot split the bundle and buy only a subset of the products.

The need for a comprehensive review of partitioned pricing research

The questions of how consumers react to PP, and how their reactions differ from those to AIP, are becoming of greater

interest. In recent years the use of PP in the marketplace has increased, and firms' PP strategies have become more complex and sophisticated, often making it more difficult for consumers to accurately process PP. Indeed, it can be argued that for most online shopping, as well as many important purchases such as cellular phone services, cable television, and travel, PP is now the norm, rather than AIP. This trend of growth and increased complexity in PP places greater demands on three key constituencies. Consumer researchers need to understand reactions to PP to help obtain a comprehensive view of consumer reactions to price. Public policy makers have become more concerned about the potential for PP to mislead consumers and thwart competition, and have increased regulatory and legislative action regarding PP to protect consumers, while lawyers and judges must understand PP to properly participate in the many legal cases involving the practice, brought by government entities and even by consumers. Lastly, marketing managers must have a thorough understanding of how PP affects consumers, and how to use it not only effectively, but also ethically.

Since the first academic investigation of consumer reactions to PP appeared in the late 1990s (Morwitz, Greenleaf, & Johnson, 1998), numerous articles examining PP have appeared in a wide range of disciplines — marketing, psychology, economics, finance, and law. Hamilton, Srivastava, and Abraham (2010) discuss and use some of this research in a “benefits based” managerial decision framework outlining how PP may increase the perceived value of an offering by partitioning the prices of product components with high-perceived benefits. However, there is still a need for a comprehensive review of the psychological processes that motivate consumer responses to PP. Such an inquiry can help the constituencies just mentioned to better understand why PP has the impact it does, to manage that impact, and to assess when that impact is in the public interest as opposed to when PP can mislead consumers. Furthermore, a review of the psychological processes underlying PP points to important unanswered questions and highlights avenues for future research.

Accordingly, this paper has four objectives: i) to discuss recent trends in PP in practice, to convey the increasing complexity that consumers—and thus consumer researchers, policy makers, and managers—must contend with when forming research, policy, and decisions for PP; ii) to introduce readers to the literature describing the wide impact that PP has in the marketplace, not only on price perceptions and demand, but also on key variables such as brand attitudes, fairness perceptions, and search intentions; as well as the key moderators of PP effects; (iii) to propose an organizing framework of the psychological processes responsible for PP's impact on consumers; and (iv) to propose an agenda for future research in PP, focusing on key unanswered questions, and under-researched areas in the proposed framework just discussed.

PP is one of several related pricing strategies that tend to make the total cost to purchase a product less transparent and more difficult to process. In “drip pricing,” some charges are revealed only after the purchase, so that consumers may underestimate the total cost at the time of purchase (Hamm, 2013; Shelanski et al., 2012). Sometimes firms use “shrouded

attributes” (Gabaix & Laibson, 2006)—whose prices, and even whose existence, is not readily evident to consumers. With “price obfuscation,” (Ellison & Ellison, 2009) firms make prices difficult to process and to compare (Chioveanu & Zhou, 2013). “Price complexity” (Carlin, 2009) involves not only PP, but also introducing new terminology for price components that consumers may have difficulty understanding, as well as intentionally varying price presentations across firms, to make it difficult to compare prices. While the present paper focuses on PP, we will discuss its relationship to these other methods that reduce price transparency.

The expanding, more complex role of partitioned pricing in practice

Partitioned pricing's growing popularity and complexity in the marketplace

Consumers are confronted with a proliferating use of PP in a wide range of markets, and many consumer transactions are more likely to involve a surcharge now than they were two decades ago. These surcharges have also become more sophisticated, complex, and potentially difficult for consumers to process and understand. Internet consumers, almost non-existent in 1998 when PP was first examined in the academic literature, face a bewildering set of PP strategies that vary considerably in what they include in the base price versus the surcharge (Xia & Monroe, 2004). Many service firms have added new surcharges, such as banks (Carrns, 2013), entertainment and arts ticketing (BBC News, 2007; McVeigh, 2008), and airlines (Rice, 2012; Tuttle, 2012a). Hotels have added surcharges for resort use, landscaping, housekeeping, and energy (Bennett, 2008, Marshall, 2004; Tuttle, 2012b), and total hotel revenue from surcharges has doubled in the last 10 years (Sharkey, 2014). Electrical, gas, and water utilities have added many surcharges, prompting the American Association of Retired Persons to investigate these practices and recommend consumer safeguards (Smith, Miller, Bisdorf, & Zhao, 2012).

The use of buyer's premiums has expanded to include almost all auction houses, the largest of which have adopted complex sliding scales that make it more difficult for bidders to compute their total bid costs (Alberge, 2008; Thomcroft, 2007; Vogel, 2008). For example, as of September 30, 2013, the buyer's premium at Christies in the U.S. was 25% of the first \$100,000, then 20% on any remaining amount up to \$2,000,000, and then 12% of any amount exceeding \$2,000,000. Online “penny auction” sites advertise very low winning prices, such as \$18.88 for an iPod Touch, but require bidders to pay a surcharge, often between 50 cents and one dollar, to submit each bid (Grant, 2011; Kim, 2011; King, 2012). Surcharges, and not sales of items, are the primary revenue source for these sites—for example, an iPod touch that retails for approximately \$250 earned an estimated \$1132 in bid fees for its seller, QuiBids.com.

Surcharge amounts have also increased. British Air increased their fuel surcharge three times in four months (Clark, 2011). Buyer's premia at auction houses increased from 10% in the

1980s to as high as 25% today (Alberge, 2008; Reif, 1982; Vogel, 2008). In 2013 alone Christie's raised its buyer's premium twice (Appraiser Workshops, 2013). The Ponemon Institute estimated that an average adult pays \$942 annually for surcharges they did not first notice (Pugh, 2008).

Firms are now incorporating PP not just as a part of their pricing strategy, but also as part of their competitive positioning and segmentation strategies. For example, Southwest Airlines and Priceline (Business Wire, 2007) both differentiated themselves by advertising that they use all-inclusive pricing while their competitors add many surcharges. In early 2014, online ticket reseller StubHub switched to "all in" pricing that includes all fees. Initially this move seemed to reduce use of the site and sales, though sales later rebounded (Karp, 2014). Some retailers advertise that they will pay the sales tax on purchases, reduce or eliminate shipping and handling surcharges, or have introduced paid memberships, such as Amazon Prime, that allow consumers to receive free shipping. In December 2008, Bloomsbury Auctions temporarily reduced its buyer's premium from 20% to 15% in a "special holiday offer." Large auction houses have reportedly agreed to share a portion of the buyer's premium with major sellers, which previously they kept entirely (Bowley, 2014; Thorncroft, 2007). Firms has sometimes added or increased surcharges to "camouflage" price increases.

Some firms have also used a hybrid approach that has aspects of PP, AIP, and bundling, and falls between PP and AIP. For example, some airlines impose surcharges for seats with greater legroom, but include these seats in the base price for customers with a high frequent flyer status, or charge for food for less expensive service classes but not more expensive ones.

Public policy and partitioned pricing

PP is also drawing increased attention from public policy makers, who are concerned that PP can reduce consumers' comprehension of their total costs, and can also affect search for information among competitors (Nussim, 2010; van Boom, 2011). The UK Office of Fair Trading's, 2010 report on pricing practices in advertising concluded that PP and drip pricing had the greatest potential to mislead consumers, and "complex [price] offers" were ranked third. In 2012, the UK introduced new regulations prohibiting firms from invoking surcharges, exceeding their costs, for payment methods that consumers use. In December 2011, the U.S. Department of Transportation, in the face of airline opposition, changed its regulations to require airlines to include all mandatory taxes and fees in advertised fares, and to display prominently the total cost of a ticket online and in advertisements (Hunter, 2011). Airlines argued against the rule change, but the U.S. Supreme Court upheld it (Stohr, 2013). However, airlines continued to oppose the change, and in 2014 the U.S. House of Representatives passed the Transparent Airfares Act of 2014, which if enacted, would again allow airlines to quote airfares excluding taxes and fees (Davidson, 2014). In the European Union and in Canada, airlines must include all taxes and fees in their base prices (Dixon, 2012; Perkins, 2008). Surcharges for concert tickets in

the U.K. (BBC News, 2007) and bid surcharges at penny auction websites in both the U.S. and abroad are also coming under increasing scrutiny (Kim, 2011; King, 2012). In the U.S., public policy makers are facing increasing demands to adopt European Union standards that require sellers to display prices that include taxes (Nussim, 2010). In May, 2012, the Federal Trade Commission held a conference focusing on drip pricing (Shelanski et al., 2012).

Governments have also prosecuted firms for civil and criminal violations involving PP practices. In November 2012 the U.S. Federal Trade Commission notified 22 hotels that their practices of adding resort fees to base prices could violate Federal law (Hamm, 2013). In New Zealand, Qantas Airlines and Air New Zealand were fined for failing to disclose surcharges in advertising and imposing extra charges to cover normal operating costs. Air New Zealand plead guilty in a similar legal case in Japan (Townsville Bulletin, 2006), and in 2012 an Australian court fined Air Asia for not including on its website a single price, inclusive of all surcharges (Saurine, 2012). Conspiracy to collude on buyer's premia featured prominently in the antitrust and criminal prosecutions of auctioneers Sotheby's and Christie's in the early 2000s, resulting in convictions and a prison term (Ashenfelter & Graddy, 2005; Stewart, 2001).

Consumers have been increasingly willing to bring legal actions involving PP practices against firms. Sotheby's and Christie's paid \$512 million to settle a class action suit stemming from the price fixing charges just mentioned, while audio/video club Columbia House and the music club BMG Direct both settled legal suits involving improprieties in shipping and handling fees (Del Franco, 2004; Hart, 2003). State attorneys general have investigated penny auctions and reached settlements with some to cease misrepresenting prices (Consumer Reports, 2014). Consumer advocacy organizations have also become involved with PP issues. Which?, a large UK consumer advocacy group, filed a legal "super-complaint" with the UK Office of Fair Trading regarding credit and debit payment surcharges (Which?, 2011), thereby helping prompt an OFT investigation of these practices at airlines, resulting in twelve airlines agreeing to include these fees in their stated prices (The Guardian, 2012).

Existing empirical research on the downstream impact of partitioned pricing

While the primary focus of this paper is on the psychological processes underlying PP, it is helpful at the outset to briefly summarize existing empirical research on PP's downstream impact. We discuss the papers below more extensively in the next section on the framework of psychological processes. Table 1 summarizes these papers.

PP's impact on consumers' perceptions of total cost

PP can cause consumers to perceive that their total costs are less than with an equivalent AIP. When products have surcharges, such as for shipping and handling, perceptions of

Table 1
Summary of Partitioned Pricing Literature.

Paper	Main DVs	Predictors and mediators	Decision context	Main findings	Product
Bertini and Wathieu (2008) ^a	Relative preference ¹ Offer attractiveness ¹⁻⁴ Purchase intent ²⁻⁴ Attention to partitioned component ³	Price format: PP vs. AIP ¹ Perceived value of secondary attribute ¹ Importance of secondary attribute ²	Choice scenario ¹	PP increases the weight assigned to the secondary attribute – the attribute associated with the partitioned component. When the secondary attribute is attractive (unattractive), PP increases (decreases) purchase intent relative to AIP. This effect manifests when the secondary attribute is less important to the consumer and easy to evaluate.	Flight ¹ Online grocery shopping ² Movie ticket ³ Christmas tree ⁴
Brown, Hossain and Morgan (2010) ^{a,b}	Revenue ^{1,2} Number of bidders ² Opening price ²	Shipping charge ^{1,2} Shipping charge salience: low vs. high ^{1,2}	eBay and Yahoo auctions	For a low (high) shipping surcharge, surcharge salience has a positive (negative) effect on revenues.	iPod ¹ Gold and silver coins ²
Burman and Biswas (2007) ^a	Perceived offer value Purchase intent	Price format: PP vs. AIP ¹⁻³ Need for Cognition ¹⁻³ Surcharge reasonableness ¹⁻⁴	Online purchase scenario ¹ Advertised offer ²⁻³	Among high-NFC, but not among low-NFC, PP results in more favorable evaluations of the offer than AIP. This interaction is moderated by surcharge reasonableness.	Flight ticket ¹ DVD player ² Camera ² PDA ³ MP3 player ⁴
Carlson and Weathers (2008) ^a	Price fairness ^{1,2} Purchase intent ^{1,2} Total price estimation ^{1,2}	Number of price components ^{1,2} Seller trustworthiness ^{1,2} Total price: present ^{study 2} vs. absent ^{study 1}	Auto body repair shop scenario ^{1,2}	PP involving a large vs. a small number of price components increases (decreases) purchase intentions and perceived fairness when the total is (not) presented. This interaction is moderated by seller trustworthiness.	Auto repair ^{1,2}
Chakravarti, Krish, Paul, & Srivastava (2002) ^a	Relative offer evaluation ¹ Choice (binary and continuous) ¹	Price format: AIP vs. PP ^{1,2} Partitioned component: warranty (performance related) vs. icemaker (consumption related) ^{1,2} Product performance ^{1,2} Performance framing ¹ Base price attractiveness ²	Purchase scenario ^{1,2}	PP offer results in more favorable evaluation and greater choice likelihood than AIP offer. Partitioning a consumption related attribute has a stronger effect than partitioning a performance related attribute. The partitioned component effect on choice is moderated by performance framing and base price attractiveness.	Refrigerator ^{1,2}
Cheema (2008) ^{a,c}	Winning bid ¹ Purchase intent ^{2, 4} WTP ³	Seller reputation ¹⁻⁴ Surcharge amount ^{1,3,4} Price format ² : PP vs. AIP Response time ³ Need for cognition ⁴	eBay auction ¹ hypothetical eBay scenario ³ Catalog ⁴	Seller reputation moderates consumers' reactions to price format. PP lowers purchase intent when seller reputation is low; price format does not affect intentions when seller reputation is high ² . This is because consumers take longer and elaborate more when evaluating offers from low-reputation sellers.	DVD ¹ Cell phone service ² Scarf ³ LCD computer monitor ⁴
Chetty, Looney, and Kroft (2009) ^{a,c}	Quantity sold ¹ Total revenue ¹ Per capita consumption ²	Price format: tax exclusive vs. both tax exclusive and inclusive on same tag ¹ Tax salience ²	Grocery store purchase ¹ National alcohol consumption ²	Demand is lower with a tax-inclusive than a tax-exclusive price tag, suggesting that consumers ignore or underweight tax in purchase decisions. The effect of tax inclusion vs. exclusion is moderated by tax salience.	Cosmetics, hair care accessories, and deodorants ¹ Beer ²
Clark and Ward (2008) ^c	Winning bid Revenue: shipping charge inclusive and exclusive Revenue variance	Shipping charge Bidder experience	eBay auctions	Consumers usually do not consider shipping costs when bidding. Bidder experience does not enhance consumer consideration of shipping charges.	“Charizard” (Pokemon) cards
Hamilton and Srivastava (2008) ^a	Offer ranking ¹ Choice/preferences ^{2,4} Perceived quality ^{2,4} Offer evaluation ³ Purchase intent ³	Partitioned component: provides high vs. low benefit ^{1,3,4} Base price ^{1,2} Surcharge ^{1,2}	Choice scenario ^{1,2}	When the partitioned component is perceived as providing low (high) benefit, consumers are more (less) sensitive to the surcharge amount; as a result different partitions of the same	Refrigerator ¹ Auto part replacement ² Laptop ³ Keyboard stand ³

(continued on next page)

Table 1 (continued)

Paper	Main DVs	Predictors and mediators	Decision context	Main findings	Product
	Perceived component benefits ³ Perceived fairness ⁴ Reference price ⁴			total price result in different consumer evaluations, depending on which component is partitioned.	Pizza and wings ⁴
Hossain and Morgan (2006) ^a	Number of bids Number of bidders Revenue	Initial bid Shipping and handling fees Reserve price	eBay auction	Bids do not decrease as shipping and handling fees increase. Sellers earned greater revenue and attracted more bidders by setting a lower opening bid and a higher shipping charge than by doing the reverse.	CDs Video games
Kachersky and Kim (2011) ^a	Perceived persuasion intent ^{1,2} Choice between AIP and PP offer ²	Price format: AIP vs. PP ¹ Persuasion knowledge ² Product category: familiar vs. unfamiliar ² Surcharge fairness ²	Shopping scenario	Consumers assign greater persuasion intent to PP than to AIP. Choice of PP vs. AIP depends on the interaction between product familiarity and persuasion knowledge, and on the interaction between persuasion knowledge and perceptions of surcharge fairness.	Digital camera ¹ MP3 player ² Ring and pinion set (car part) ²
Kim (2006) ^a	Purchase intent ^{1,2} Product evaluation ¹ Total price estimation ^{1,2}	Price format: AIP vs. PP ^{1,2} Surcharge format: \$ vs. % ¹ Surcharge salience ¹ Price estimation: memory vs. stimulus based ²	Shopping scenario	PP enhances product attitudes and lowers price perception compared to AIP as long as the surcharge is not salient nor easy to process. The effect of PP on intentions and attitudes manifests when consumers need to rely on their memory to recall the total price instead of being able to view the total.	Cordless telephone ¹ MP3 player ²
Lee, Choi, and Li (2014) ^a	Information processing ¹ Price perception ² Offer perception ^{3, 4}	Regulatory focus ^{1,3} : Information processing ² Price format ^{2,3} : PP vs. AIP	Online store ² Print ad ³ NA ⁴	Regulatory focus moderates the impact of price format. PP is more attractive than AIP with promotion focus, due to more global processing, but the two formats have the same attractiveness with prevention focus, where local processing is stronger.	Flowers ² Furniture ³ Flight ticket ⁴
Lee and Han (2002) ^a	Attitudes toward brand Attitudes toward retailer Price recall error attribution: assigned to self vs. to advertiser	Price format: PP vs. AIP Selling type: direct vs. retail Compared brands Product category	Advertised offer	PP resulted in a greater price recall error than AIP. When consumers realize the price format biased their price perception (substantially downward, for AIP) they perceive the brand less favorably. Attribution of the price recall error (to retailer versus to self) moderates the effect of price format on brand attitudes.	Computer Stereo hi-fi
Lewis, Singh, and Fay (2006) ^b	Order amount Order incidence rate	Shipping charge Household vars: children, babies, pets Previous order (timing, amount purchased) Promotional coupons Average item price Buyers' premium (0 vs. 15%) ¹	Online grocery shopping	Consumers are sensitive to shipping fees, especially when they are "free." Shipping promotions generally increase demand, but the increased revenue is unlikely to offset the corresponding lost shipping revenue. High heterogeneity across household segments is observed.	Grocery and drugstore items
Morwitz, Greenleaf, and Johnson (1998) ^a	(Total cost)/(perceived value) ¹ Relative purchase intent ² Recalled total cost ² Processing strategy ²	Price format: AIP, PP with \$ surcharge, or PP with % surcharge ² Brand attitudes ²	Auction ¹ Catalog ²	Price perceptions are lower and demand is higher under PP than under AIP. Surcharge format (\$ vs. %) and brand attitudes moderate these effects.	A jar of pennies ¹ A telephone set ²
Schindler, Morrin, and Bechwati (2005) ^a	Offer attractiveness Shipping charge skepticism	Price format: AIP vs. PP Reference price: provided vs. not provided	A catalog offer	PP results in more favorable attitudes toward the product than does AIP, but only among consumers with low shipping charge skepticism. This interactive effect holds when the consumer has a reference price for comparison.	Table lamp
Sheng, Bao, and Pan (2007) ^a	Purchase intent ¹ Surcharge fairness ¹	Price format: PP vs. AIP ¹⁻³ Ratio between the surcharge and the base	Online shopping scenario ¹	When the surcharge reflects a small (large) proportion of the base price, PP results in greater (lower) purchase intent	CD walkman ¹ Digital watch ²

Table 1 (continued)

Paper	Main DVs	Predictors and mediators	Decision context	Main findings	Product
		price ^{1,2} Order ¹⁻³ Surcharge fairness ³		than AIP. This effect is mediated by the perceived fairness of the surcharge.	Laptop computer ³
Völkner, Rühle, and Spann (2012) ^a	Price effects on product choice: informational, sacrifice, and total.	Price format: single-component PP vs. 2-component PP vs. AIP Target of shopping: self vs. another person	Online shopping task	Compared to AIP, PP increases both the informational and the sacrifice effects of price. When the relative increase in the informational effect overrides the increase in the sacrifice effect, PP should increase demand.	Wine bottles
Xia and Monroe (2004) ^a	Purchase intent ¹ Price satisfaction ¹ Perceived value ¹ Surcharge acceptance ¹ Information search intent ¹ Seller's trustworthiness ¹	Price format: AIP vs. PP ¹⁻³ Surcharge type: shipping vs. tax ¹ Surcharge amount ¹ Surcharge presentation: \$ vs. % ¹⁻³ Sensitivity to shipping fee and sales tax ¹ Number of surcharges: one vs. two ²	Shopping scenario	Compared to AIP, PP increases purchase intent and enhances attitudes toward the seller, the price, and the offer, even when the total price is presented. The effect of PP is moderated by surcharge amount and surcharge presentation format. The positive effect of PP on attitudes and purchase intentions is reduced when the price has two surcharges. With two surcharges, the moderating effect of presentation format is eliminated.	Desktop PC ¹

Annotation:^a experiment,^b Quasi-experiment,^c secondary data analysis, numerical superscripts refer to the study number in papers reporting more than one study

total cost are often lower with PP than with AIP (Kim, 2006; Lee & Han, 2002; Morwitz et al., 1998).

Impact on willingness to pay, purchase likelihood, and demand

If consumers perceive their total costs are less with PP than with AIP, willingness to pay (WTP) and demand should increase. Auction bids, a useful measure of WTP, have been found to be higher in auctions with separate surcharges for buyers' premiums (Morwitz et al., 1998), and bids did not decrease as shipping and handling surcharges increased (Clark & Ward, 2008; Hossain & Morgan, 2006). Choice intentions for durable goods (Chakravarti, Krish, Paul, & Srivastava, 2002; Xia & Monroe, 2004) were higher with PP than with AIP. Consumers tended to be more sensitive to product prices than to their supplementary sales taxes (Xia & Monroe, 2004). Demand for consumer goods dropped when price tags included, rather than excluded, sales tax (Chetty, Looney, & Kroft, 2009). Demand for alcohol was more sensitive to variations in excise taxes, which are included in the base price, compared to sales taxes, which are not (Chetty et al., 2009). Online consumers tend to order more, and more frequently, if the price of shipping is separated but is then "free," as opposed to including a shipping charge (Lewis, Singh, & Fay, 2006). Using PP can also increase a price's informational (price-quality) effect, which increases demand, but also increase a price's sacrifice effect, decreasing demand (Völkner, Rühle, & Spann, 2012).

Impact on other downstream variables

PP has additional downstream consequences, besides those related to price perceptions and demand. Brand attitudes

decrease when consumers facing PP attribute price recall errors to the firm's actions rather than to themselves (Lee & Han, 2002). Higher surcharges can reduce perceptions of price fairness (Sheng, Bao, & Pan, 2007), as can using more components in a PP when a seller is not trusted (Carlson & Weathers, 2008). Xia and Monroe (2004) found some evidence suggesting that PP may decrease search intentions, but the results were not statistically significant. Analytical models incorporating empirical findings show that increasing "price complexity" allows firms to obtain more consumer surplus (Carlin, 2009), as does increasing "price frame dispersion," the variation in pricing methods across firms (Chioveanu & Zhou, 2013).

Factors that moderate PP's impact

The impact of PP depends on several moderators. Two key moderators are the surcharge magnitude and ease of processing. When surcharges are small consumers may not fully account for them, but when they are large the effect of PP diminishes and can even reverse (Sheng et al., 2007; Xia & Monroe, 2004; see Kim & Kachersky, 2006, for a conceptual model). When surcharge presentation is more complex, such as when using percentages of the base price, consumers tend to recall lower total costs, and are more likely to ignore surcharges (Kim, 2006; Morwitz et al., 1998; Xia & Monroe, 2004). However, overly complex surcharge displays (e.g., with many components) can create unfavorable reactions to PP (Carlson & Weathers, 2008; Xia & Monroe, 2004). Kim (2006) found that PP lowered price perceptions relative to AIP, but only when the surcharge's font size was small, but Brown, Hossain, and Morgan (2010) found

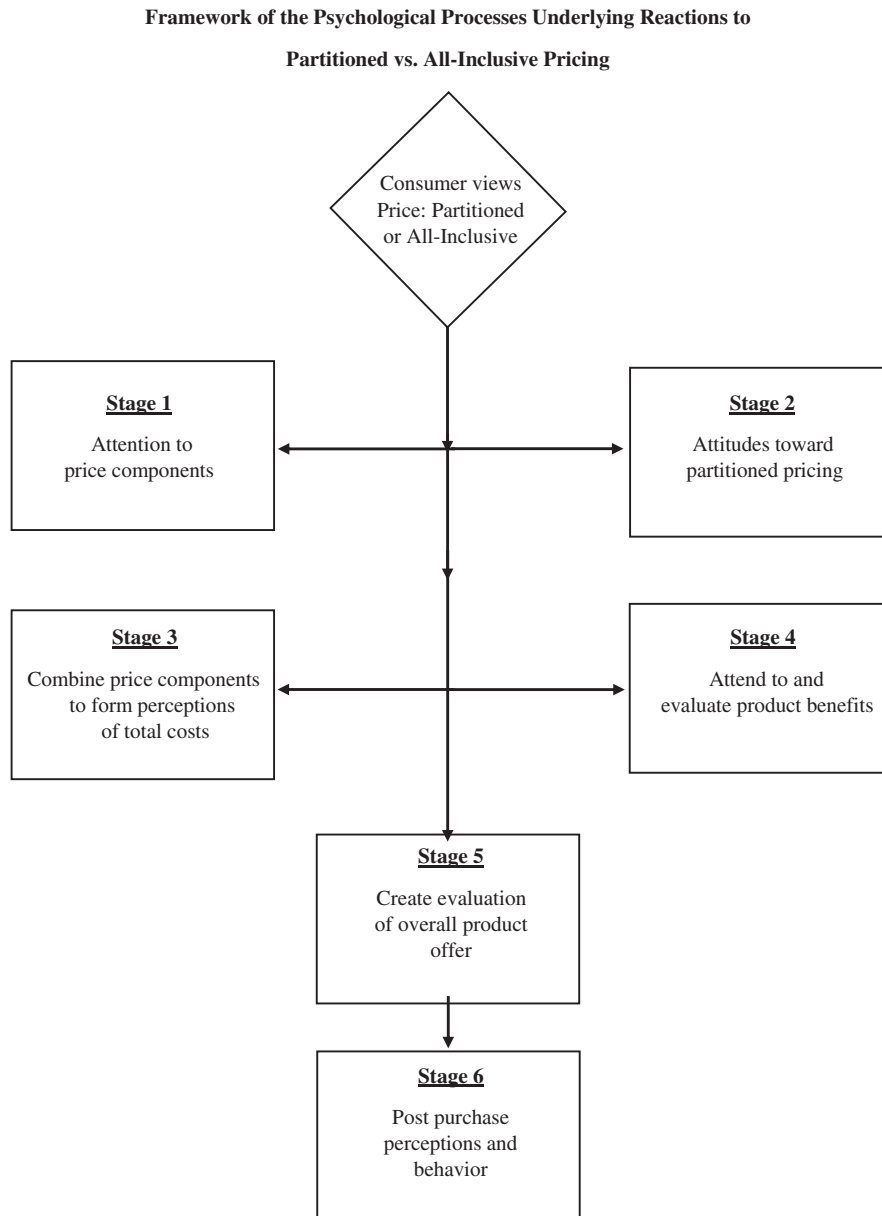


Fig. 1. Framework of the psychological processes underlying reactions to partitioned vs. all-inclusive pricing.

that making shipping and handling charges more visible in auctions increased demand for low, but not for high, shipping costs.

The impact of PP can depend on the attribute for which a surcharge is levied. Choice intentions under PP increase more when the partitioned attribute is consumption- rather than performance-related (Chakravarti et al., 2002). Reactions are more favorable when the partitioned component is considered to be a good deal, as opposed to a bad deal (Bertini & Wathieu, 2008). Consumers are less price-sensitive to surcharges for product attributes that offer high, as opposed to low, benefits (Hamilton & Srivastava, 2008).

Consumers' trust in a firm can affect reactions to PP. Cheema (2008) found that in eBay auctions, bidders bid lower amounts when faced with higher shipping and handling surcharges from sellers with a low, but not moderate or high,

reputation. Consumers' fairness perceptions and purchase intentions are negatively affected by the use of many versus fewer surcharges, but only if the seller is not trusted (Carlson & Weathers, 2008).

Characteristics of consumers can also moderate the impact of PP. Schindler, Morrin, and Bechwati (2005) found that "shipping charge skeptics" pay more attention to surcharges because they believe firms attempt to profit from them, and Kachersky and Kim (2011) found considerable heterogeneity in consumers' perceptions of whether firms use PP and AIP with persuasive intent. Morwitz et al. (1998) found that participants with moderately favorable attitudes towards brands process surcharges more accurately than those with relatively low, or high, brand attitudes. More general consumer characteristics such as need for cognition and regulatory focus also moderate reactions to PP (Burman & Biswas, 2007; Cheema, 2008; Lee,

Choi, & Li, 2014). Online bidder experience has also been examined as a moderator, but results do not indicate a significant relationship (Cheema, 2008; Clark & Ward, 2008).

A proposed framework of the psychological processes underlying partitioned pricing

A central thesis of this paper is that to fully understand how PP affects consumers, and to create effective methods to manage these effects, consumer researchers, public policy makers, and marketing managers need to understand the psychological processes underlying consumer responses to PP, and the sequence of processes that take place when consumers encounter PP. For example, if public policy makers want to create regulations to improve consumers' comprehension of PPs, they first need to understand in what stage(s) of the process miscomprehension originates, and then create regulations focused on consumer behavior in those stages. If these efforts focus on stages that occur after miscomprehension has already occurred, such as only at the point of purchase as opposed to when consumers first observe price information, they may not be successful. Consumer researchers who want to study a particular effect of PP will want to know in what stage of the process that effect is likely to occur, and what other effects may occur at the same stage. Similarly, marketing managers who want to (ethically) use PP to increase demand or reduce price sensitivity will need to understand which stages to focus on, since they will want to intervene before, rather than after, consumers have formed key perceptions that they seek to change. A broad, process-based view of consumer reactions to PP can also enhance the evaluation of such interventions, identifying relevant factors that should be monitored and measured at each stage. This, in turn, would help insure that research, regulatory, and managerial conclusions about these interventions are based on a thorough examination of their overall impact, and that unanticipated upstream or downstream effects are not ignored.

Our principal objective is to propose a framework for these psychological processes, and the relationships among them. A number of process explanations have been proposed, and some have been tested. However, to achieve the goals just discussed, there is still a need to organize these explanations, since different processes have sometimes been proposed to explain the impact of the same independent variable or moderator, or the same process for different variables. We propose that a sequence of psychological processes occurs when consumers encounter PP, and that the net impact depends on the cumulative impact of these processes. Furthermore, the importance of these different factors can vary across different contexts.

The overall framework we propose involves six inter-related stages (see Fig. 1). We discuss these stages in the approximate chronological order in which they normally appear in consumers' decision-making processes. While we feel this order is likely to occur in many instances, we do not claim that this order will always hold.

First, we discuss processing for two stages that we feel simultaneously occur when consumers first encounter PP. These are (1) the attention they give to the different PP components and (2) their attitudes towards the use of PP. These two stages may also influence each other. We then examine two more stages that may occur concurrently and that may influence each other. These are (3) how consumers combine the separate price components to arrive at a perception of their total cost for the product, and (4) how PP influences the attention paid to and the evaluation of product benefits. These two concurrent stages then lead into the last two stages (5) where consumers incorporate these perceptions into an overall evaluation of a product offer or offers for competing products, to decide which to purchase, and (6) the processes involved when PP affects postpurchase behavior.

Stage 1: attention to PP components

If consumers do not attend to some PP components, particularly the surcharge, they are more likely to underestimate, or under-perceive, their total cost for the product. Often this attention is related to the salience of the price components (Kim & Kachersky, 2006) but it can also be related to the importance consumers place on carefully attending to price, and to their perceptions of the relevance of a price component to their goals (Bertini & Wathieu, 2008).

Salience of surcharge

Surcharges are often less salient than base prices, due to the different nature of the two components. In some instances, surcharges have so little salience that they are ignored by some consumers. Morwitz et al. (1998) found that a substantial proportion of consumers (12.2% to 35.6%), ignored the surcharge completely when recalling a total price.

Chetty et al. (2009) conducted a three-week experiment in an actual supermarket, and varied whether shelf tags included only the base price and the 7.375% sales tax separately, or also reported at the bottom a tax-inclusive total price. Including the total reduced demand by an average of 8%. In a second study, they found that the price elasticity of demand for U.S. alcoholic beverages was much lower for sales taxes, which are typically partitioned, compared to excise taxes, which are included in base prices. They further found that these taxes and their rate are well known to consumers, but are less salient to consumers during the decision and purchase stages than the prices of the items themselves.

Surcharges also capture less attention when they have a small magnitude. However, when the surcharge magnitude is substantial compared to the base price, it is more likely capture attention. Thus, when surcharges are small consumers do not fully account for them, but when they are large the effect of PP diminishes and can even reverse (Kim & Kachersky, 2006; Sheng et al., 2007; Xia & Monroe, 2004). However, Hossain and Morgan (2006) found that in auctions they conducted on eBay, both the number of bidders and total revenues increased as shipping charges were increased and minimum opening bids were decreased experimentally. They postulate that surcharges

may be salient to one segment of consumers but ignored by others.

Having too many surcharges can also increase their salience. Xia and Monroe (2004) found an inverse-U-shaped relationship between number of surcharges and purchase intentions. Similarly Carlson and Weathers (2008) found that participants perceived the total price of a car repair service to be higher with a larger versus smaller number of price components (when total prices were not provided), and suggested the high number of surcharges increases their salience.

Sometimes surcharges can be more salient than base prices. Lewis et al. (2006) found that offering free shipping increased purchasing to a greater extent than offering equivalent monetary discounts on the base price. They propose that consumers can be more sensitive to shipping and handling surcharges than base prices if the former are described as free.

Visual salience of surcharge vs. base price

How easy or difficult a surcharge is to see is another aspect of salience. Kim (2006) found that PP lowered recalled total costs, relative to AIP, when the surcharge's font size was small. However, Brown et al. (2010) found that, in online auctions, demand increased when they increased the visual salience of low, but not high, shipping costs. Thus, the effect of visual salience was moderated by surcharge size.

Attitudes toward the product

Consumers' prior attitude towards a product also affects the attention consumers pay to PP. Morwitz et al. (1998) found that PP increased purchase intentions the most for consumers with favorable prior attitudes towards the target product. They propose that consumers with unfavorable brand attitudes do not feel it is worthwhile to carefully attend to price information, including surcharges, since they have a low interest in buying the brand, and therefore PP does not affect them. Consumers with moderately favorable brand attitudes, however, reduce their uncertainty over which brand to purchase by attending to and processing price information more carefully, including the surcharge, so that the surcharge does affect their purchase probability. Consumers with relatively favorable brand attitudes attend to surcharges less carefully, since they are already favorably inclined towards the brand and think it is likely they will purchase it, resulting in lower price perceptions and higher purchase intentions with PP.

Attitude toward the surcharge component

Hamilton and Srivastava (2008) propose that PP's impact depends on the relative benefit consumers perceive in different partitioned components. Although they don't claim that perceptions of the benefit of the surcharged component affect the attention paid toward its price, they do find that consumers are more price sensitive when a relatively low-benefit attribute is partitioned rather than a relatively high-benefit one. They conclude that, when firms partition prices, components with higher perceived benefits should have the separate surcharge.

Stage 2: attitude towards surcharges and the use of partitioned pricing

Research has examined consumers' attitudes towards the use of PP and surcharges, which we also believe has its impact at the start of the decision process. In some instances, consumers must first notice the surcharge before an attitude towards it becomes activated or is formed for that particular occasion. In other instances, the surcharge may be noticed subconsciously, but still activates an attitude. It is also possible that existing surcharge attitudes may affect the attention that consumers pay to surcharges.

Chronic attitudes towards surcharges

Schindler et al. (2005) find that some consumers have the chronic personality trait of being "shipping charge skeptics." They perceive shipping charges as less fair, and as designed to generate firm profits rather than just to recover actual firm costs. High-skepticism consumers pay attention to shipping charges and have no preference between PP and AIP. In contrast, low skepticism consumers prefer PP to AIP.

Kachersky and Kim (2011) also examined consumers' chronic attitudes towards pricing formats. Almost half of their participants believed PP had a greater persuasive intent than AIP, compared to 13% of participants who thought the opposite. The researchers suggest that consumers prefer price formats with less perceived persuasive intent, and that they will give more attention to PP components when they suspect it is being used with persuasive intent. Consistent with this, Brown et al. (2010) propose that there are three segments of online auction bidders—"attentive" bidders who are fully aware of shipping charges and know their exact amount, "naïve" bidders who believe the surcharge is low, even though they do not know its exact amount, and "suspicious" bidders who assume that these surcharges are high, even when they do not know the amount of the surcharge.

Perceptions of the seller

Cheema (2008) found that eBay auction bidders do not adjust their bids downward to compensate for higher shipping and handling surcharges when sellers have a moderate to high reputation, but do adjust when sellers have a low reputation. He also finds that consumers use a more careful choice process, and pay more attention to the surcharge, when buying from low- than from medium- and high-reputation sellers. Carlson and Weathers (2008) find that trust for a seller affects not only reactions to PP, but moderates the impact of the number of price components used in a PP on perceptions of price fairness and purchase intention.

Perceptions of surcharge fairness

Judgments of price fairness affect many types of consumer behavior (Bolton, Warlop, & Alba, 2003; Campbell, 1999; Kahneman, Knetsch, & Thaler, 1986; Xia, Monroe, & Cox, 2004), including reactions to PP. Sheng et al. (2007) found that high surcharges which exceed the base price, a surprisingly common practice, are perceived as less fair than surcharges

smaller than the base price. Furthermore, fairness perceptions fully mediated the impact of surcharge magnitude on purchase intentions. As discussed earlier, Schindler et al. (2005) propose that the perceived fairness of surcharges helps distinguish between “shipping charge skeptics” and other consumers. Carlson and Weathers (2008) found that the magnitude and the number of surcharges can influence fairness perceptions.

Consumer and personality characteristics not specifically related to PP

Researchers have also examined the impact of more general consumer characteristics that may be related to the attention consumer pay to PP components or their attitudes toward them. Burman and Biswas (2007), found that high need for cognition participants (abbreviated NFC; Cacioppo, Petty, & Kao, 1984) had higher willingness to purchase when taxes and processing fees were partitioned rather than combined, but price format had no effect for low-NFC participants. A second study found that high NFC participants’ reactions to PP depended on the perceived reasonableness of the surcharge magnitude. NFC can also moderate the impact of seller reputation and surcharge magnitude on purchase likelihood. Cheema (2008) found that purchase likelihoods for low-NFC participants were affected by seller reputation, but not by surcharge size. For high-NFC participants, higher surcharges decreased purchase likelihood for low-reputation retailers, but not for high-reputation ones.

Regulatory focus also affects consumers’ reactions to PP (Lee et al., 2014). PP is more attractive than AIP for promotion-focused consumers, who tend to use a global processing style that gives more importance to primary information, such as base prices. In contrast, the two pricing formats are equally attractive for prevention-focused consumers, who tend to use a local processing style that places more weight on secondary information, such as surcharges.

Stage 3: combining price components to determine a perception of total price or cost

In the next two steps in the proposed framework, consumers combine PP components to arrive at a perception of a product’s total cost (Stage 3) and attend to and evaluate product benefits (Stage 4). For several reasons, in Stage 3, consumers sometimes do not do the math—sometimes simple, sometimes more complicated—needed to accurately total all price components. Consequently, they may not give any weight to surcharges, or may attend to and weight base prices and surcharges differently. Research has found that some consumers take the time and effort to calculate the sum of all of the price components, while others either never notice or ignore the surcharge and perceive that their total cost consists only of the base price, and still other consumers use a heuristic that partially incorporates the surcharge, arriving at a perception of total cost that usually is between the base price and the actual total cost.

For example, Morwitz et al. (1998) found that 23% of the PP participants simply ignored the surcharge when recalling total cost, 54.8% appeared to use a heuristic strategy, and only 21.9% used mathematical calculation, where estimated total

cost was within 5% of the actual total. Chetty et al. (2009) found that when sales tax was not included on supermarket price tags, most participants included no tax at all when stating the total price they would pay at the cash register, thus ignoring sales tax. Only 18% reported a price within 25 cents of the actual, tax-inclusive price, increasing to 75% when the tag also stated a tax-inclusive price. Carlson and Weathers (2008) found that only 49% of participants estimated price within 5% of actual for two price components (vs. 23.3% for nine components). We next discuss psychological reasons why consumers ignore surcharges, accurately calculate the total, or use heuristics to add base prices and surcharges. We then discuss more general factors that influence how consumers combine price components.

Ignoring the surcharge

There are several reasons why consumers might ignore surcharges, even when they are aware of them. First, consumers do not always fully process all information that is available to them. Consumers are often selective information processors, editing available information to a more limited set (Kahneman & Tversky, 1979), and focusing on the information most salient in that context (e.g., see, Hutchinson & Alba, 1991; Lynch & Srull, 1982). Second, consumers often process information in the same manner in which it was framed or presented to them, and do not integrate or transform information (Slovic, 1972; Thaler & Johnson, 1990). Thus, they may not combine price components mathematically, since they are presented separately, but instead ignore the surcharge.

Some consumers may have lay beliefs that a surcharge represents an extra, negligible cost for a peripheral product component, and is not a major profit source for the firm. Such consumers may conclude that a surcharge need not be integrated into the final cost, or that they can expect to encounter a similar surcharge from the firm’s competitors, so that it is not worthwhile to look for competing products with lower surcharges, and, as a result, ignore surcharges. Even if surcharges are not considered to be negligible, Sheng et al. (2007) propose that consumers may ignore surcharges to help them perceive that “they are getting a good deal.”

Calculating total price

There are several reasons why some consumers use the most complex, but accurate, cognitive approach to PP and calculate the total price, arriving at a total very close to the actual total, aside from math errors or rounding. They may do so if the required cognitive effort is low, such as when all price components are round numbers that are easy to add, or if motivation to compute an accurate total price is high, such as for large surcharges.

Of course factors from the first two stages also influence the likelihood that consumers accurately calculate the total. First, consumers must attend to all price components to accurately compute a total. Second, their attitude toward PP might also affect their tendency to calculate a total cost. As mentioned earlier, shipping charge “skeptics” (Schindler et al., 2005) may be more motivated to process information carefully. Similarly,

consumers who do not trust a retailer, such as an auction seller (Carlson & Weathers, 2008; Cheema, 2008) may be more motivated to calculate the total price, in order to avoid inadvertently paying a high price.

Estimating total costs with a heuristic

Even if consumers do attend to a surcharge, they may combine it with the base price using a heuristic to estimate their total cost. Such heuristics often give insufficient weight to the surcharge. Consumers may use anchoring and adjustment (Chapman & Johnson, 1999), anchor on the base price, and then insufficiently adjust upward in response to the additional surcharge information, resulting in an underestimated total price (Clark & Ward, 2008; Morwitz et al., 1998; Sheng et al., 2007). The temporal order of price presentation in PP, where base prices are typically presented first and surcharges later, may lead consumers to anchor on base prices, as proposed in Morwitz et al. (1998). Such anchoring biases where consumers favor the first piece of information encountered, have been identified in other areas of decision making (Tversky & Kahneman, 1974). For example, consumers' perceptions for the overall cost of a grocery trip are disproportionately influenced by prices they see early in their shopping trip (Büyükkurt, 1986). Similar anchoring biases have been found in processing of single numbers and prices, where consumers give excessive weight to the first numbers in a sequence, such as in the first digit they read (Thomas & Morwitz, 2005). These same effects may apply to base prices and surcharges.

Furthermore, Morwitz et al. (1998) propose that consumers may anchor on the base price because they perceive that it is the most important piece of price information, while surcharges are perceived as less important, similar to what has been observed for product bundles (Yadav, 1994). Consumers tend to place excessive weight on a single component of a multidimensional price that they perceive as most important, such as the monthly payment in a car lease versus the number of payments (Estelami, 2003), or the largest price versus other price components (Carlson & Weathers, 2008). Carlson and Weathers (2008) also propose that consumers may instead sometimes use a numerosity heuristic (Pelham, Sumarta, & Myaskovsky, 1994) in judging PPs, and comparing PPs with different numbers of components, where prices with more components are perceived to have higher total cost.

Cognitive demands of processing the surcharge

Consumers are also more likely to use an heuristic to estimate total costs or simply ignore surcharges when the cognitive demands of processing the surcharge are higher. Chetty, Looney, and Kroft (2007), in a more extensive version of their 2009 paper, propose a model where consumers have to “pay” cognitive costs to calculate the sum of product prices and taxes.

When the surcharge presentation is more complex (e.g., requiring more complex math, or multiple surcharges) it is more difficult to process surcharges, making consumers more likely to rely on heuristics to combine the base price and surcharges. Morwitz et al. (1998) found that participants recalled a lower total price when the surcharge was presented

as a percentage of the base price rather than in dollars. Further, a higher percentage of participants completely ignored the percentage surcharge than the dollar surcharge. Other studies have observed the same effect with percentage surcharges (Kim, 2006; Xia & Monroe, 2004). Carlson and Weathers (2008) propose that consumers are more likely to use an heuristic as the number of price components, and therefore the difficulty to calculate a total price, increases.

However, overly complex surcharge displays can sometimes prompt unfavorable consumer reactions. Xia and Monroe (2004) found that consumers had greater purchase likelihood for PP than for AIP, but that one surcharge yielded higher purchase intent than did two. They concluded that although partitioning with more than one small surcharges increased demand, consumers “do not like to be ‘nickel and dimed’ with multiple smaller surcharges”

Using complex partitioned prices can also give firms advantages over consumers, or competitive advantages over each other. Carlin (2009), focusing on the financial services industry, uses an analytical game theory model to show that high-price firms will tend to use increased price complexity to make it more difficult for consumers to compare their prices to low-price firms, and as a result consumer surplus will decrease. He also finds that, as competition increases, more firms use more complex pricing policies, including PP.

Chioveanu and Zhou (2013) analytically find a symmetric equilibrium where prices are determined by whether consumers are more confused by “price frame dispersion,” defined as variations in price presentation across firms, versus “frame complexity,” defined as how difficult it is for consumers to compare prices using the same frame. Many of their frame examples involve PP. They also find that prices and frames will both vary across firms, and that increasing the number of firms can, surprisingly, increase industry profits and lower consumer surplus, due to increased consumer confusion about comparing prices and total costs.

Presence or absence of total price

Even when consumers are presented with the total cost of PP, they may still react differently to PP and AIP (Carlson & Weathers, 2008). Xia and Monroe (2004) found that PP increased purchase intentions compared to AIP, even when a total price was provided. However, Chetty et al. (2009) found that presenting a total price, including sales tax, decreased demand. The differences in these results may be due to different reactions to surcharges for shipping and handling versus sales taxes, as both Xia and Monroe (2004) and Chetty et al. (2009) discuss.

Additional factors in combining PP components, which may not lead to a consistent bias in perceptions of total cost

Other psychological processes, that we discuss next, have been shown to also affect how consumers arrive at perceptions of total cost. These include mental accounting and processes related to reference price effects.

Chakravarti et al. (2002) propose that consumers can use different mental accounts for different attributes or benefits of

a product. Since consumers are less price-sensitive for attributes they highly value, then increasing the salience of one of these attributes by charging a surcharge for it, can prompt that particular mental account. With AIP on the other hand, consumers use a single mental account, and do not weight differentially across benefits or attributes. Hossain and Morgan (2006) propose that online auction bidders may have separate mental accounts for different price components, such as product costs (i.e., their bids) versus shipping and handling fees. They caution, however, that if consumers are also loss-averse, raising shipping and handling fees excessively can end up decreasing demand.

Chakravarti et al. (2002) propose that with PP, consumers are more likely to compare the price of each component to reference prices for that component, as opposed to a reference price for the entire product. Thus, whether PP increases demand compared to AIP depends on how the price for the partitioned attribute compares to consumers' reference price for this component. Schindler et al. (2005) propose that when external reference prices for a product are available, shipping charge skeptics prefer AIP, since they infer that any separate shipping and handling charge is not justified, while non-skeptics prefer PP.

Stage 4: attention to, and evaluation of product benefits

When consumers evaluate a product, they often consider several product attributes besides price. To the extent that PP changes the relative importance of one or more of these attributes, the consumer's overall evaluation of a product can also change. Chakravarti et al. (2002) found that partitioning a consumption-related attribute, such as a refrigerator icemaker, increases the salience, and consequently the weight, of that attribute in the overall product evaluation. Since the consumption related attribute has positive utility, this increased weight increases choice intentions. By contrast, partitioning a performance-related attribute, such as the refrigerator's warranty, makes that attribute more focal, but this then increases concerns about the risk of product failure, which decreases choice intentions.

Bertini and Wathieu (2008) also examine how the nature of the attributes that are subject to surcharges can affect attribute weights, focusing on "secondary" attributes that normally receive less attention and weight. They find that the attractiveness of the secondary attribute that is highlighted through PP can determine whether PP increases, or decreases, product preference and perceived attractiveness. They found that PP increased preference for an airline flight relative to AIP when the surcharged component—an entertainment and refreshment package—was perceived as a good deal, but decreased preferences when it was perceived as a bad deal.

Stage 5: overall evaluation of the product offer

Stages 3 and 4 involve the processes by which PP influences consumers' price and product related perceptions. In Stage 5, these perceptions in turn are combined to form an overall evaluation of

the product offer. As discussed earlier, much research has shown that when PP lowers price perceptions it increases purchase likelihood and demand. However, since PP can affect product evaluations separately from its impact on total price perceptions, the ultimate effect of PP on demand depends on the weight consumers place on price versus other attributes. Importantly the impact of PP on consumers does not end with their purchase decision. Consumers' reactions to PP in one purchase situation, may also influence their later attitudes, perceptions, and future behavior with respect to PP, which we discuss next.

Stage 6: the impact of PP on postpurchase perceptions and behavior

Attributions for errors and their impact on attitude towards the firm

Consumers' future behavior can depend on attitudes towards firms that are formed after purchase. Attitudes are affected by consumers' attributions (Weiner, 1980) for outcomes related to the purchase. Lee and Han (2002) found that consumers who saw PP (vs. AIP) tended to underestimate actual total costs. However, a week later, when PP consumers realized they erroneously underestimated the total price, brand attitudes decreased from their initial level with PP, but did not change with AIP. Further, PP's negative effect on brand and retailer attitudes was larger when consumers attributed the blame for the price recall errors to the retailer rather than to themselves. Given this result, consumers may be less likely to consider buying again from a firm who they believe contributed to the error, and if they do consider it, they would likely attend more carefully to price information to avoid repeating the price recall error.

Perceptions of price fairness

We earlier discussed how fairness perceptions can influence the attention paid to base prices and surcharges as well as the extent to which these are fully processed (Carlson & Weathers, 2008; Sheng et al., 2007). Collectively, these studies also suggest that PP affects consumers' price fairness perceptions, which in turn influence their purchase intentions. It is likely that these fairness perceptions would in turn affect how consumers react to PP on their next purchase occasion. The less fair consumers perceive PP to be, the more carefully they will attend to and process PP on their subsequent purchase occasions. Furthermore, consumers may be less likely to even shop, in the future, at a retailer whose pricing practices they perceive as unfair.

Impact of PP on future search

Xia and Monroe (2004) examined how PP affects consumers' intentions to search further for information. While search intentions were lower with PP than with combined pricing in the two studies where it was examined, the results were not statistically significant in each study, and a pooled analysis was not performed. While these results suggest that PP may reduce consumer search, more research is needed.

In sum, though most PP research has examined its effect on price perceptions and purchase likelihood, PP can also influence attitudes toward the firm, fairness perceptions, and

search intentions. Since PP also can make the surcharged product component more salient, it also can potentially alter attribute importance. These factors all have the potential to affect not only current attitudes and behavior, but also future ones, and thus PP's future effectiveness.

An agenda for future research on partitioned pricing

Although the research just reviewed makes many important discoveries about how consumers process PP, there still remain many under-researched areas and unanswered questions of interest to consumer researchers, public policy makers, and marketing managers. Some of these questions concern issues suggested by the framework of psychological process underlying reactions to PP. Other questions involve new directions and suggest ways to extend the conceptual framework. We next discuss these questions.

Future research on stage 1: attention to PP components

PP research can benefit from enhanced process measures, especially of attention and memory. Most existing research on the attention that consumers pay to PP and AIP has used indirect measures, such as calculation accuracy or impact on price perception. Future research can use more direct attention measures, such as eye tracking, and quantify the relative attention given to each price component under various conditions.

Future research should also examine factors that influence whether consumers attend to and whether they are later able to recall disclosures informing consumers about the presence of surcharges with PP and drip pricing. For example, one element of the price for checking accounts is an overdraft fee that is charged by a bank when a payment creates a negative balance in an account. A transaction as small as a \$3 charge for a cup of coffee can result in the assessment of a \$34 overdraft fee (CFPB, 2013; Liu, Montgomery, & Srinivasan, 2014). Interestingly, some research shows that many consumers do not remember having given permission for such fees to be charged, although they all must make a choice at when they open an account (Pew Charitable Trusts, 2014). Such overdraft fees are estimated to generate \$12.6 billion in revenue for banks (CFPB, 2013).

Future research on stage 2: attitude towards surcharges and the use of partitioned pricing

Relative preference for PP vs. AIP

More work is needed on the extent to which consumers prefer PP vs. AIP prices, and which types of PP they prefer, as well as factors that affect their preferences. These preferences could further moderate the link between PP and downstream variables such as price perceptions and demand. For example, Hardesty, Bearden, and Carlson (2007), building on the concept of persuasion knowledge (Friestad & Wright, 1995), developed a 17-item index of "pricing tactic persuasion knowledge" (PTPK) that predicted consumer response to pricing, such as everyday low pricing, price bundling, and

tensile price claims. While one of the items involved shipping and handling charges, they did not use the item, or the overall measure, to predict reactions to, or preferences for, PP. Given the many different PP strategies and surcharges used in the marketplace, it would be helpful to develop a persuasion knowledge measure specific to PP and variants of it, and determine its impact on consumer reactions. Such measures could complement approaches such as measuring shipping charge skepticism (Schindler et al., 2005), and open ended responses (Kachersky & Kim, 2011).

In examining relevant attitudes towards PP, it would be helpful to consider attitudinal forces that may operate in opposing directions, and the contexts in which each is stronger. For example, firms often claim that PP increases price transparency by conveying more information about components of the final price and the product itself. If consumers believe this claim, it may create positive attitudes towards PP, even if PP leads to inaccurate cost processing. On the other hand, consumers may perceive PP as an impediment to accurate cost processing, creating negative attitudes. Thus, it would be helpful to examine the extent to which consumers hold these disparate beliefs, as well as their relative impact.

Consumers' attributions for different types of surcharges

With the growing diversity of surcharges, more research is needed on consumer attributions for these surcharges, and on how these attributions affect demand, price perceptions, price fairness, and firm and brand attitudes. In addition to examining internal vs. external attributions for PP's effect on price recall (Lee & Han, 2002) future research might examine who consumers believe is responsible for the surcharge. Examples include whether consumers faced with a booking surcharge for buying concert tickets online rather than at the box office perceive that they, or the ticket firm, are responsible for this fee. Other dimensions of attributions may also affect consumer reactions to PP. For example, stability perceptions might affect attitudes towards an airline fuel surcharge imposed to reflect higher oil prices. Controllability perceptions might affect attitudes for a car insurance surcharge imposed due to more accidents involving wild deer, which the insurance company cannot control, compared to a "construction work in progress" surcharge on electric bills, to pay for a utility's investment in a nuclear power plant that was never operational, which presumably the firm controls (Greenhouse, 1989). Controllability attributions may be particularly interesting for buyers' premia in auctions, since bidders do not control the premium in percentage terms, but the eventual monetary amount of the premium depends on their bid amount, which they do control. Consumers often have more positive reactions to price increases when they are perceived to be connected to increases in the firm's own costs, and future research might examine attributions regarding whether a surcharge is directly related to a firm's costs.

Attitudes towards prices that contain a "free" surcharge

Consumers' reactions to products offered for "free" often cannot be explained by price sensitivity alone (Chandran &

Morwitz, 2006, Shampanier, Mazar, & Ariely, 2007), and often involve additional utility from getting something useful for free. More research is needed on PP where one or more surcharges are framed as being free versus included in the base price (e.g., see Lewis et al., 2006), e.g. when warranties, normally included in an AIP, are instead offered for free. Instances where firms offer to pay for taxes may be of particular interest, especially given that consumers often obtain more utility from avoiding taxes than from price reductions (Sussman & Olivola, 2011).

Changes in surcharge practices

Consumers' attitudes towards surcharges may depend on how that surcharge has changed. For example, research is needed on how consumers react when a formerly optional surcharge whose amount they could control, such as a restaurant tip, becomes a mandatory surcharge. Consumers may resent losing discretionary power in these transactions. A related question is the possibility of reactance when surcharged amounts are optional but specific amounts are suggested, such as credit card readers in taxicabs where tip amounts start at 20%, well above the 15% many consumers usually tip.

Relative preferences for PP versus AIP may also be affected by whether a change departs from existing practices that consumers are accustomed to. For example, surcharges are more prevalent in online purchases and catalogs (e.g., shipping and handling) and services (tips, buyer's premium), but are less prevalent in bricks and mortar settings. Consumers in the U.S. are used to paying extra for sales tax, but the European equivalent, VAT, is usually included in the price. Future research may examine if changes that depart from the status quo are more salient to consumers, and viewed more negatively, than changes consistent with the status quo.

Spontaneous and lay inferences about the price of the partitioned component

Future research may investigate how consumers' lay beliefs and inferences about the nature of surcharges affect attitudes and surcharge processing. For example, research might separate which market conditions, including variations in price presentation and labeling, lead consumers to perceive surcharges as trivial, or inevitable, as opposed to large and unpredictable, to warrant paying attention to or comparing across competitors. More research is also needed on how these lay beliefs change as market practices change. Public policy makers will also be interested in consumer lay beliefs, to make sure that they are accurate and are not manipulated in an unethical manner. More work is needed on how lay inferences and prior attitudes towards PP vs. AIP can be changed to help consumers make informed decisions. For example, regulators will be interested in whether informing consumers about potential decision biases caused by PP can help counteract overly positive attitudes towards PP, that result in less accurate price processing.

Future research on stage 3: combining price components to determine a perception of total price or cost

Although PP researchers have investigated the cognitive processes consumers use to combine PP, as discussed earlier, more research is needed in this area. A better understanding of these processes can help public policy makers design regulatory protections to insure that the presentation of PP does not lead consumers to perceive total costs inaccurately.

Additional consequences of anchoring on the base price

More research is needed on other likely consequences of anchoring, suggested by existing decision and perception research, some of which extend beyond estimating total costs with PP. For example, people's tendency to anchor and adjust when they update beliefs as they obtain new information (Hogarth & Einhorn, 1992) can have several implications for PP. First, numeric anchors, such as low or high base prices, can make beliefs that are consistent with that anchor, such as that the offering is a good or bad deal, more accessible (Chapman & Johnson, 1999, Mussweiler & Strack, 2001). Second, consumers may start to encode value once they see the base price but before they note the surcharge, which can affect how they encode the subsequent surcharge information, and can also affect future recall (Russo, Meloy, & Medvec, 1998). The affected initial beliefs could extend beyond price, such as that a brand is a wise purchase, cares about consumers' welfare, or is popular, because its base prices are low, and endure even after consumers later see surcharges, due to belief persistence (Ross & Lepper, 1980). Public policy makers will also be interested in research to see if accepted, or new, approaches to reducing anchoring biases such as these (Epley, 2006) can help create appropriate and effective regulations on the use of PP.

Impact of differences in numerical ability and processing style on combining price components

Future research may also examine how differences in consumers' math ability and their preferences toward and processes used for numerical calculations may affect how they compute total costs with PP, and thus their reactions to PP. Prior research has shown these traits influence processing of price promotions (Suri, Monroe, & Koc, 2013). These same factors or other measures of numerical ability may influence consumers' preference for PP and AIP and their tendency to calculate carefully versus to use heuristics (Welsh, Burns, & Delfabbro, 2013).

Reconciling results from PP with prospect theory and mental accounting

The prediction that PP can increase demand may seem to run counter to some findings from prospect theory (Kahneman & Tversky, 1979) and mental accounting (Thaler, 1985). These frameworks suggest that people prefer to integrate losses, which implies they should prefer AIP over PP. There are several directions future research might take to reconcile these possibly conflicting perspectives. First, these predictions need not be in conflict. Chakravarti et al. (2002) point out that the

prior literature has proposed that consumers might treat product expenditures as exchanging money for value received, rather than as a loss. Thus, their associated mental accounting might take place on the gains side of the value function, which is concave, an issue that has received empirical support (Novemsky & Kahneman, 2005). Second, consumers do not always integrate losses (Thaler & Johnson, 1990). Third, even when product expenditures are perceived as losses, those from surcharges might be less salient than losses from the base price.

Future research on stage 4: the attention paid to, and the evaluation of, product benefits

Firms sometimes use PP to signal to consumers that a product-related cost is not under their control, such as when airlines add a fuel surcharge (Hamilton et al., 2010) hoping it will lead to a positive reaction. However when firms use PP, they also may inadvertently increase the salience of such surcharges and negatively affect consumers attitudes. Hamilton et al. (2010) discuss how partitioning the price of a warranty for a durable good may raise concerns about the appliance's reliability. Since some research has shown that consumers overlook surcharges and other research has shown that PP increases attention to surcharged components, future research should examine when PP increases attention to non-price attributes, and continue to examine when this will lead to more positive versus negative evaluations compared to AIP.

Future research on stages 5 and 6: overall evaluation of product offer and post purchase perceptions and behavior

Simultaneous effects of PP on price perception and value

More research is needed on how PP affects perceptions of price and of value simultaneously. As we have discussed, PP can affect both the perceived benefits and perceived price of an offering, and the value received from particular components of an offering (Bertini & Wathieu, 2008; Chakravarti et al., 2002; Hamilton & Srivastava, 2008). However, more research is needed on how the price perception effects and the perceived value effect might interact, to create an overall impact on purchase intentions and behavior. For example, research could look for the optimal tradeoff between highlighting a particular component by charging a relatively higher surcharge for it, to highlight its perceived benefits, versus charging a lower surcharge for it, which can draw less attention to the component's benefits but would lower total perceived costs.

Impact of PP on use of choice rules

There is a need for research to determine how the choice rules consumers sometimes use, which do not require an overall evaluation based on all product attributes, might be affected by PP. For example, in a conjunctive choice rule a brand is deemed acceptable only if its performance on an attribute exceeds a screening level. Consumers might set a cutoff level for the surcharge, as either an absolute amount or a percentage of the base price. In such cases, consumers may attend to the

surcharge only in an earlier stage, when then attend to price components, but not later, when they calculate an overall total cost.

Cognitive vs. emotional reactions to PP vs. AIP

Our framework and discussion largely focused on cognitive evaluations and reactions to PP and AIP. However, consumers also have affective or emotional responses to price promotions. Honea and Dahl (2005) showed that consumer reactions to price promotions can result in different feelings toward the self, the product, the firm, and the selling context. Similarly, consumers may have different emotional reactions to PP than to AIP, and future research should examine the interplay of consumers' cognitive and affective reactions on their perceptions and behavior with PP versus AIP.

Postpurchase perceptions and behavior

Though most PP research has examined its effect prior to or during purchase, some research has examined its effects post purchase, e.g. on perceptions of attribute importance, attitudes toward the firm, and future search intentions. Future research should examine how these downstream effects influence consumers' reactions to PP on subsequent purchase occasions. Relatedly, most PP research has focused on consumers' reactions to a single use of PP vs. AIP. Future research should examine consumers' reactions to PP over repeated occasions and the impact of experience on reactions to PP.

Future research on the impact of PP in competitive environments on consumer search

While some attention has been given to how PP affects consumer search behavior (Xia & Monroe, 2004), there is a need for more research. This impact can not only affect a firm's competitive strength, sales, and profits, but also has public policy implications, since any strategy that motivates consumers to search less or overlook more preferred or lower price products can reduce consumer welfare. For example, most research on PP has examined consumer reactions to a single PP offer or to two offers, one with PP and another with AIP. However, many purchase decisions, especially online, involve comparisons between multiple offers with multiple pricing methods (Grewal, Munger, Iyer, & Levy, 2003). More research is needed on how variations in pricing formats for PP across competitors affect consumer search, and particularly empirical research, to complement extant theoretical models (Carlin, 2009; Chioveanu & Zhou, 2013). For example, PP formats can vary across firms in different ways, in terms of surcharge amounts, what the surcharge is for, whether it is presented as an amount or a percentage, and spatial or temporal separation between presenting the base price and the surcharge. Future research could examine the extent to which these different kinds of variations reduce consumer search, and the consequences of that reduced search for consumers.

Research could examine consumer inferences and relative firm perceptions when one firm uses AIP and another uses PP,

or when a firm changes from PP to AIP, or the reverse. For example, many moderate-priced furniture companies charge extra for delivery, while many higher-priced ones use combined pricing, so AIP may imply a higher-luxury image.

Future research should also examine PP's impact on other characteristics of consumer search. First, more complex PP may make decision-making more difficult or tedious, leading consumers to delay and defer choice (Dhar, 1996). This effect might reduce demand when PP makes pricing more complex, counteracting price obfuscation effects. Second, complex PP might motivate consumers to shift their focus from price to other, more easily comparable attributes, reducing price sensitivity (Völckner et al., 2012). Third, consumers might intentionally, as opposed to inadvertently, focus on a smaller set of offers (Xia & Monroe, 2004).

PP's impact on consumers under competitive conditions may also depend on the assumptions that they make about the surcharges. For example, if consumers assume that surcharges do not vary across competitors, they may focus solely on base prices and not notice whether firms have higher surcharges, and furthermore prefer PP to AIP.

Consumers often form consideration sets early in their decision process, and limit information search to products in that set. Research is needed on how PP affects these consideration sets, such as which products are included versus excluded. Public policy makers may want to research the risks that, with PP, consumers might unduly exclude (or include) products with relatively low (or high) surcharges. Once consumers form a consideration set, they may "neglect" or discard the original screening information used to create the set, and judge the remaining products using different, "non-screening" information, even if the former information is judged to be more important (Chakravarti, Janiszewski, & Ülkümen, 2006). This neglect occurs because consumers perceive that attributes not used for screening will now best differentiate among the remaining options. In a PP context, if consumers initially screen on base price and give less or no attention to surcharges, they may not return to price information when making their final choice, and thus never give sufficient attention to the surcharge, leading consumers to underestimate a product's cost. Future research could investigate this behavior, and its potential to make consumers leave out lower-priced products from sets.

Future research on the relationship between PP and product bundling

Despite their commonalities, PP and product bundling often yield disparate effects. For example, consumers react more favorably to a bundled price than to separate prices for each bundle element (Johnson, Herrmann, & Bauer, 1999; Stremers & Tellis, 2002), which seemingly contradicts findings that PP can increase purchase intentions. Research is required to reconcile these results. One possible explanation is that, while with PP consumers must pay both the base price and surcharges associated with a single product (as, in pure bundling, where they must purchase the entire bundle of

multiple products), with product bundling consumers can sometimes decline the bundle and purchase a single desired component. Research involving scenarios where consumers must purchase all bundled components has found results more similar to those in the PP literature (Chakravarti et al., 2002). Another explanation is that PP and bundling yield different effects due to the asymmetry in the values that consumers frequently assign to the surcharge compared to the base product. With product bundling such asymmetry is less common, so mechanisms that lead to surcharge neglect are less likely to become active.

Future research on the relationship between PP, shrouded attributes, and price obfuscation

Firms can still benefit even if only some consumers do not fully process surcharges. Gabaix and Laibson's (2006) model suggests that firms can benefit from "shrouding" the price of particular product attributes, and avoid competitive retaliation for doing so, if the market contains both "sophisticated" consumers who consider fully the cost of these attributes and "myopic" consumers who only consider these costs if they are made explicit. Gabaix and Laibson focus on "avoidable shrouded attributes," which are "add-ons" that consumers have the option of purchasing, but do not propose a full model for "unavoidable shrouded attributes," which are essentially attributes with mandatory surcharges. However mandatory surcharges that are not transparently presented, or information that firms hide or obfuscate from customers, can also fit the description of a "shrouded attribute." Such models could be extended to address the impact of "unavoidable" shrouded attributes, on consumer search and firm profitability.

Ellison and Ellison (2009) define price obfuscation as practices firms use intentionally to make price comparisons more complicated, difficult, or confusing, and discuss how it increases consumers' search costs. They show that obfuscation can lead to increased firm profits by making consumers less informed about prices. Public policy makers may wish to determine when intentionally varying pricing formats creates obfuscation, making it more difficult for consumers to identify and evaluate options with lower total prices. Given the increasing complexity in surcharges in the marketplace, this topic has some urgency.

Conclusions

While past research has provided much knowledge about the impact of PP on consumers, many important questions remain to be answered for researchers, public policy makers, and firms using PP. Given the market trend towards new variations of PP and surcharges, these questions have become more important. We encourage more research on PP and hope it continues to use a variety of methods (e.g., auctions, field studies, and laboratory studies), subjects, products, and types of surcharges to answer these important questions.

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