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The negative effect of policy restrictions on consumers' post-purchase reactions to price-matching guarantees

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Abstract Price-Matching Guarantees (PMGs) are a mechanism by which retailers can reassure consumers of the competitive price of products they offer. While current research in marketing has studied consumers' pre-purchase perceptions of the retailer as a result of offering price-matching guarantees, research on the post-purchase impact of PMGs has been relatively limited. While price-matching guarantees are typically assumed to result in positive consumer perceptions of the retailer, no study to date has examined the potentially negative post-purchase impact of PMGs. This paper examines the potential negative effect of policy restrictions which may prevent the disbursement of a price-matching refund, on consumer perceptions. Two experiments (Experiment 1 n=120, Experiment 2 n=50) are utilized to dissect the impact of policy restrictions on consumers' perceptions of service quality, price, and loyalty. The paper concludes with a discussion of the managerial implications of the findings on price-matching guarantee policies.

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Research has established that a significant proportion of consumer complaints following a purchase are related to price, and that the successful resolution of these complaints by retailers can have a profound influence on consumer loyalty (Estelami and DeMaeyer 2002). By specifying that a refund will be given provided certain policy restrictions are met, *price-matching guarantees* (PMG) provide companies a way to effectively manage post-purchase price complaints. PMGs represent a promise from the retailer to the buyer that in case lower prices for an item are found elsewhere following the purchase, the retailer would refund the difference between the purchase price and the lower price found by the buyer. Thus, PMGs enable consumers to cope with their limited knowledge of market prices by securing a lowest-price commitment from the retailer.

Due to their mass consumer appeal, PMGs have found increased use in the sale of a wide array of products ranging from appliances and electronics to clothing, computers, and home hardware (Adams 2002). Moreover, PMGs are not only offered by traditional retailers, but are also frequently offered in direct sales through the Internet, consumer catalogues, and other direct channels (Lucas 2001).

Various explanations for the positive effects of price-matching guarantees have been offered in the literature. Research indicates that by offering PMGs retailers are able to improve price perceptions and increase the value perceptions associated with the retail outlet (Biswas et al. 2002; Kukar-Kinney and Walters 2003). As a result, PMGs help raise perceived service quality levels prior to the purchase and increase choice (Srivastava and Lurie 2001). However, most of the existing research has focused on the positive pre-purchase effects of PMGs, and little attention has been given to potentially negative consumer reactions to the effects of policy restrictions associated with price-matching guarantees after the purchase. As will be shown in this paper, these policy restrictions (e.g., number of days the PMG will be honored) may negatively impact consumers' perceptions of the retailer.

The objective of this paper is to build on earlier works by examining how fundamental consumer responses—namely service quality judgments, price perceptions, and consumer loyalty—are influenced by policy restrictions which guide retailers' responses post-purchase. In two studies, one utilizing field data and the other using a controlled laboratory experiment we demonstrate that restrictive PMG policies result in negative perceptions of the retailer, regardless of the reasons for the refusal. The paper concludes with a discussion of the strategic importance of PMGs and the need for flexible policies in order to secure positive consumer perceptions.

Price matching guarantees

Retailers may benefit from providing price-matching guarantees in several ways. Research in economics suggests that PMGs can provide a mechanism of collusion among retailers (e.g., Corts 1997). The presence of PMGs by one retailer provides a disincentive to other retailers to lower their prices, since their price will be matched by the PMG-offering retailer. PMGs are also often used as a tool to segment the market based on consumer's information search costs. With price-matching guarantees, those consumers who have high search costs will not be able to use the PMG since they will not be willing to undertake the search necessary to locate an alternative retailer with a lower price on the purchased product. On the other hand, a consumer who has conducted sufficient post-purchase information search to locate a lower price would be able to request a refund for the price difference (Png and Hirshleifer 1987). This enables the retailer to effectively charge higher prices for consumers with high search costs.

In contrast to the economics literature outlined above, highlighting the potentially harmful effects of PMGs on consumer welfare, emerging research in marketing suggests that consumers perceive many benefits from PMGs. Similar to product warranties which focus on failures that might occur due to a product's non-price attributes, price-matching guarantees provide the consumer with a safety blanket in case a purchased product's price fails to be competitive in the marketplace. As such, PMGs provide a means for improving consumers' perceived price and service quality perceptions (Srivastava and Lurie 2001). Consumers perceive stores that offer PMGs as being price competitive, and more likely to offer the lowest price on the market. Key consumer responses such as intended store choice, purchase intentions, and pre-purchase price expectations are positively influenced by the very presence of a PMG at a retail outlet (Sivakumar and Weigand 1996).

While considerable research in both marketing and economics has focused on the pre-purchase signaling effects of PMGs on consumer perceptions and intentions, current research provides limited coverage of consumers' post-purchase responses to PMGs. The majority of existing works have focused on consumer perceptions of the store prior to the purchase transaction, and it is, therefore, unknown how consumer perceptions of the retail encounter are affected when a consumer requests a refund based on a price-matching guarantee following the purchase.

Retailer's response to a price-matching guarantee request

A consumer's request for a price-matching refund and the retailer's willingness and flexibility in honoring the PMG is likely to have a profound impact on consumer perceptions of the retailer as well as profitability. While research has established that the existence of a PMG prior to the purchase improves consumers' overall sentiment towards the retailer and the act of purchase, the post-purchase effects are likely to be different, especially where restrictions designed into a PMG policy enable a retailer to refuse a refund request. Restrictions such as those related to the time horizon of the PMG policy or the scope of competitors considered may justify the refusal of refunds thereby protecting the retailer's profit margins. However such policies may also create negative perceptions of service quality and result in a reduction of consumer loyalty levels, as will be discussed below.

A price-matching guarantee provides the means for the consumer to seek a refund following a purchase, should the consumer be able to locate a lower price elsewhere. The retailer's response to this request typically takes on three possible forms. The retailer can honor the price-matching guarantee by providing a refund for the price difference. Retailers such as Nordstrom and Sears are well known for honoring price-matching guarantees, even under circumstances where the terms of the price-matching guarantee—such as the time limit of the PMG—are not met (Estelami and DeMaeyer 2002). Alternatively, the retailer can refuse to honor the price-matching guarantee, in which case the cause associated with the retailer's refusal may significantly influence a consumer's judgments. If the refusal is associated with a consumer-related cause, such as the expiration of the time limit of the PMG, significantly different reactions may be expected than when the retailer is considered to be the primary cause of the refusal. The latter case may occur when, for example, a retailer refuses to admit the competing price claim made by the consumer as evidence of a lower price (Sivakumar and Weigand 1996).

Consumer judgments of the retailer may, therefore, vary as a result of the three outcome possibilities. When a consumer presents a price-matching guarantee request to the retailer, it signifies the failure by the retailer to deliver a promised low price. Similar to a product warranty, price-matching guarantees represent a market signal from the retailer to consumers about its competitive prices (Spence 1974). The signaling effect has a profound impact in consumer expectations of the retailer, and failure to comply with these expectations can result in consumer distrust, skepticism about retailer claims, and post-purchase consumer regret (Lutz 1989, Spence 1977). A post-purchase request for a price-matching guarantee is therefore likely to be associated with a lack of consumer confidence in the retailer's prices, resulting in consumers viewing the retailer to be less price competitive. We propose that:

H1 Consumers' post-purchase perceptions about prices offered by the retailer will be more negative than pre-purchase levels as a result of requesting a price-matching refund.

Research in equity theory indicates that consumers' opinions of a service encounter may largely be determined by what is received relative to the time and effort associated with the transaction (Walster et al. 1973). In the case of requesting a price refund, the consumer devotes considerable resources in terms of locating a lower price, remembering the price paid, determining the price difference, and confronting the retailer. As a consequence, when the PMG is refused, considerable consumer dissatisfaction may result. In contrast, if the retailer honors the PMG and refunds the price difference, consumers are likely to feel the company has delivered on their promise and evaluate the service to be even better. It is therefore expected that if the retailer refunds the price difference service quality evaluations will be more positive than if the retailer refuses to honor the PMG. This may result in an improvement in service quality perceptions of the retailer, following the purchase. It is expected that:

H2 Post-purchase perceived service quality for the retailer will improve from pre-purchase levels as a result of receiving a price-matching refund and drop if the retailer refuses to refund the price difference.

Refusing to compensate customers for their perceived losses has been shown to negatively impact customer responses such as service quality perceptions, repurchase intentions, and loyalty. Studies that have examined the effects of retailers' post-purchase responses to consumer price complaints have, for example, found monumental drops in consumer sentiment in conditions where their complaints are not satisfactorily resolved (Estelami 2003). Similar findings have been observed in research on the post-purchase effects of product warranties on consumer attitudes. Similar to the signaling effects generated by product warranties (Boulding and Kirmani 1993), price-matching guarantees represent a commitment from the retailer to match lower competing prices upon consumer request. Failure to comply with this commitment signifies inconsistencies between a retailer's image and value to consumers and may therefore compromise consumers' loyalty and satisfaction with the retailer (Campbell and Goodstein 2001).

Consumer reactions in negative post-purchase scenarios, such as when a request for a price-matching refund is not granted, are known to be influenced by the locus of causality associated with the event (Folkes 1988) and the characteristics of the PMG (Kukar-Kinney and Walters 2003). When the cause of a negative consumer experience is considered by the consumer to be the consumer himself/herself, consumer reactions may be considerably less negative than situations where the cause is attributed to the retailer. When the consumer's negative experience is attributed to the retailer, negative inferences about the retailer are considerably stronger than when attributions are made to oneself. In the context of price-matching guarantees, if the cause of the refusal is the consumer, for example by having taken too long to locate a competing price, resulting in the expiration of the time period of the PMG, consumer reactions are likely to be less negative than when the cause is attributed to specific restrictions placed by the retailer in order to refuse the refund (e.g., competitor is considered by the retailer to be outside the competitive geographic territories considered). As a result, a retailer's response to a PMG request and the reason for that response may significantly influence consumer perceptions of the retailer and the resulting service quality evaluations, price perceptions, and subsequent loyalty levels. It is therefore expected that:

H3 Post-purchase perceived service quality, perceived price, and loyalty levels of the consumer will be more positive when retailer honors the PMG than refuses it. Between the refusal conditions, perceptions will be higher when the cause of the retailer's refusal is the consumer, rather than when it is the retailer's PMG restrictions.

Price difference

An additional factor that may influence consumer judgments of the outcome of a price-matching guarantee request is the amount of price difference found between the price paid and the lower competing price found in the marketplace. The presence of this price difference can represent unintended shortcomings by the retailer, in not having closely monitored competitors' prices prior to setting its own price levels. In such a case, the retailer's lack of knowledge of competitors' prices may contradict with a low-price image that it would attempt to convey through a price-matching guarantee program. On the other hand, the dispersion between the retailer's price and the lower identified competing price may in the minds of some consumers also represent an act of consumer deception. Consumers may perceive the price-matching guarantee as an approach in encouraging consumers not to shop for lower prices elsewhere (Salop 1986). From such a perspective, the retailer who provides a price-matching guarantee may be hoping that the consumer will not take the time to locate the lower price elsewhere and subsequently request a refund. This latter consumer interpretation of a PMG program may therefore have very negative implications on consumer response, even in cases where the retailer readily refunds the price difference, and the larger the gap between these two prices, the more dissatisfied the customer is likely to be.

> *H4* The change in consumers' evaluations of perceived price and service quality will be negatively influenced by the degree of price difference between the price paid and the lower competing price identified by the consumer such that when the price difference is large, evaluations will be reduced to a greater extent than when the price difference is small.

To test these hypotheses, we utilized a controlled experimental design.

Study 1

Method

Subjects were provided with a multiple-section description of a retail context (see Appendix 1). The first section described the retailer and the fact that the retail outlet provides its customers with a price-matching guarantee for products purchased, by providing a refund for the difference between the purchased price and the price found elsewhere. In order to measure pre-purchase perceptions of price and service quality, this section concluded with the administration of a series of multi-item scales, to be described below. The second section described that following the purchase from the retailer, the customer discovers a lower price elsewhere. In the low price difference condition, subjects were told that the $149 item was found for $145 elsewhere in the marketplace. In the high price difference condition, subjects were told that the item was found elsewhere in the market for $99. Finally the scenario described the consumer returning to the store in order to request a price-matching refund and the response of the retailer. In the refund condition, the retailer readily refunds the price difference. In the consumer-caused refusal condition, the retailer denies the refund due to the fact that the product was purchased more than 30 days ago and hence the original policy restrictions of the price-matching guarantee (communicated earlier to the subject in "Price matching guarantees" of the instrument) were not met. In the retailer-caused refusal condition, the retailer refuses to provide a refund since the price claimed by the customer is not advertised anywhere and is therefore considered as unacceptable evidence of a lower competing price by the retailer. An open-ended measure and post-purchase perceptions of price, service quality and loyalty were then collected.

These three descriptions of retailer response were arrived at based on existing literature on the topic (e.g., Sivakumar and Weigand 1996) and were pre-tested with graduate business students for clarity and representativeness. The experimental design therefore consisted of a 3 (retailer response)×2 (price difference) between-subject cells.

Dependent variables

As described earlier, following the description of the retailer and the price-matching guarantee policy, pre-purchase measures of perceived price (based on work by Lichtenstein and Bearden 1988) and service quality (based on work by Bitner et al. 1990; Kelley et al. 1993) were obtained through two multi-item scales. Each was measured with four items (see Appendix 2). The confirmatory factor analysis (CFA) demonstrated that the eight indicators loaded on their respective constructs (perceived price and perceived service quality). All loadings were significant at the 0.05 level.

Following this, the actual experience of purchasing the product and subsequently requesting the price-matching guarantee, as well as the retailer's response was described to the subject. Post-purchase measures of perceived price and service quality were collected by re-administering the original pre-purchase scales. In addition, a multi-item scale was used to measure post-purchase consumer loyalty (based on work by Tax et al. 1998). All the scales had acceptable reliability (see Appendix 2).

In addition to the quantitative measures, a qualitative measure was also obtained by asking subjects to write down their thoughts and reactions to the price-matching guarantee request scenario described to them. These qualitative measures were collected in order to facilitate exploratory examination of consumer reactions through subsequent content analysis.

Subjects

To pre-test the measurement instrument, the experimental stimuli were administered to 64 graduate business students. The descriptions of the PMG service encounter, wording of specific questions, and choice of items used in the multi-item scales were subsequently refined. The finalized stimuli set was then administered to a total of 131 respondents through mall intercept interviews in two shopping malls in southern New York State. The overall response rate of individuals intercepted who participated in the study was approximately one in five and nine respondents provided unusable responses, resulting in a final sample size of 120. Each respondent was randomly assigned to one of the six cells of the between-subject design. In order to encourage participation in the study, subjects were rewarded with $2 as well as a souvenir key chain. Most subjects completed the task in less than 10 min.

Analysis of open-ended responses

Following the scenario, respondents were asked to write down any thoughts they had about the described experience. We used a content analysis procedure established by Weber (1985) to explore their written responses. Consistent with this approach, a subset of the written responses was categorized independently by two judges, who then converged it into a unified scheme. Disagreements were resolved by a third judge. The final scheme was then used by each judge to categorize the entire set of 120 consumer responses independently. The agreement rate between judges was 87%.

Responses fell into three general categories: positive, neutral, and negative. The positive thoughts relate to issues of customer service, trustworthiness of the retailer, competitive pricing, future intentions to repurchase from the retailer, and an appreciation for the transaction efficiency gained by offering PMGs. Table 1 provides examples of written descriptions provided for each of these categories. The table also reports the frequency of each thought category as a percentage of all thought listings. Most positive consumer responses were expressed in association with the experimental conditions where the retailer readily honored the price-matching guarantee. In contrast a large number of negative thoughts were elicited in the experimental cells where the PMG was not honored. The negative thoughts reflect a near mirror image of categories for positive thoughts. These are: lack of trust in the retailer, lack of adequate customer service, negative behavioral intentions toward the retailer, a belief in the uncompetitive price offered, and disappointment in the administrative

Table 1 Open-ended descriptions of the service encounter

	Category	Sample descriptions	Percent of total thoughts listed (%)	Number of thoughts listed
NEGATIVE	Poor customer service	"Bad customer service," "They don't care about the customer," "It's a disappointing experience," "Inconvenient service," etc.	19.7	29
	Negative behavioral intentions	"Will never shop there again," I will tell others not to go there," "I will fight them," etc.	8.8	13
	Lack of trust in retailer	"Taking advantage of customer," "They are cheating," "Did not live up to their promise," "They're hoping I wouldn't find the lower price," etc.	22.4	33
	Transaction inefficiency	"Why is it up to the customer to find the lower price?," "Bureaucracy," "They should be more flexible," etc.	6.1	9
	Uncompetitive price	"They're priced too high," "Other stores have lower prices," "They should be more aware of their competitors' prices," etc.	6.8	10
NEUTRAL	Neutral	"The store has the right," "It's the customer's responsibility to read the fine print," "The price difference is not large enough to get upset over this," etc.	10.9	16
POSITIVE	Good customer service	"They care about the customer," "Sensitive to customer needs," "Willing to take care of customers," "Fair," "Good people," etc.	8.2	12
	Positive intentions	"I will buy there again," "I will tell my friends to shop there," "It's a good place to go in the future," etc.	3.4	5
	Trustworthiness	"They lived up to their promise," "Reliable people," "Honest," "They give me confidence in shopping there," etc.	10.9	16
	Transaction efficiency	"No hassle," "They gave me my money back with no problem," "Accepted my request quickly," etc.	2.0	3
	Competitive prices	"This store has good prices," "Competitive," "Place to get good deals," "I can be sure to get a good price there," etc.	0.7	1

hassle needed to request a price-matching refund. Only about 10.9% of all thoughts listed reflected neutral opinions about the PMG experience.

To assess the directionality of consumers' qualitative responses, the intensity of consumers' positive and negative reactions as a function of the retailer's response was examined. For each subject, a ratio was computed by dividing the number of positive thoughts by the total number of thoughts listed by the subject. The higher this measure, the more positive is the respondent's opinions about the PMG experience. A similar measure was computed for the negative thoughts. As expected, in the experimental condition in which the retailer has honored the PMG by providing a refund, more positive opinions are expressed by subjects (Refund=0.62, No Refund Consumer-related Cause=0.01, No Refund Retailer-related Cause=0, $F(2,85)=46.9$, $p<0.01$). In contrast, in the two experimental conditions where the retailer has not honored the PMG, consumer responses are predominantly negative (Refund=0.30, No Refund Consumer-related Cause=0.78, No Refund Retailer-related Cause=0.86, $F(2,85)=21.1$, $p<0.01$). Interestingly, a significant amount of negative consumer responses was also evident in cases where the price-matching refund is provided. These negative thoughts relate to: distrust in the retailer (7%), prices not being competitive enough (8%), and the PMG process being inconvenient (6%).

Analysis of structured questions

In order to examine the impact of the manipulated experimental conditions on consumer responses, the multi-item scales utilizing the structured questions outlined in the Appendix were used. Perceived price and perceived service quality were measured twice, once prior to the description of the purchase, and once following the outcome of the price-matching guarantee request, at which time the loyalty scale was also administered. Results for Hypotheses 1 and 2, which compared pre- and post-purchase perceptions of perceived price and service quality were analyzed using a MANOVA design, where purchase-stage was the within-subject factor (two levels: pre-purchase and post-purchase) and retailer response and the price difference were the between-subject factors.

Prior to the purchase, the average price perception on a 1-to-7 scale was 4.9. However, following the purchase, a significant drop in price perceptions is observed, and the average perceived price is found to be 3.8 ($F(1,113)=57.94$, $p<0.001$, $\eta=0.58$). This pattern (see Fig. 1) is consistently observed not only in cases where the retailer refuses to honor the price-matching guarantee (retailer refusal: $M_{pre}=4.8$, $M_{post}=3.7$; $F(1,113)=19.42$, $\eta=0.38$; customer refusal: $M_{pre}=4.9$, $M_{post}=3.7$; $F(1,113)=20.80$, $\eta=0.39$), but also when a price-matching refund is given ($M_{pre}=4.8$, $M_{post}=3.8$; $F(1,113)=17.13$, $\eta=0.36$). This result is consistent with Hypothesis 1 and the observations made based on subjects' written responses reported in Table 1.

There is a significant interaction between purchase-stage and retailer response on service quality perceptions ($F(2,113)=15.88$, $p<0.001$) and as can be seen in Fig. 1, this is a function of the response exhibited by the retailer. When a full refund is provided by the retailer, there is an increase between pre- and post-purchase service quality evaluations ($M_{pre}=4.5$, $M_{post}=4.9$, $F(1,113)=3.48$, $\eta=0.17$). When PMG restrictions result in the refusal of a refund either due to the consumer or due to the retailer, there is a notable drop in post-purchase service quality evaluations (retailer refusal: $M_{pre}=4.3$, $M_{post}=3.0$; $F(1,113)=28.34$, $\eta=0.45$; customer refusal: $M_{pre}=4.6$, $M_{post}=3.5$; $F(1,113)=19.96$, $\eta=0.39$). This is consistent with Hypothesis 2.

Results for Hypotheses 3, which investigated post-purchase perceptions of price, service quality and loyalty were analyzed using an ANOVA and follow-up contrasts. Consistent with Hypothesis 3, service quality and loyalty ratings are significantly lower when the retailer refuses to honor a price-matching guarantee (service quality: $F(2,113)=22.58$, $p<0.001$, $\eta=0.53$; loyalty: $F(2,113)=13.01$, $p<0.001$, $\eta=0.43$). The difference is observed in both scenarios where the cause of the refusal is the consumer (service quality: $M_{refund}=4.9$, $M_{consumer\ refusal}=3.5$; $F(1,113)=10.21$, $\eta=0.29$; loyalty: $M_{refund}=5.1$, $M_{consumer\ refusal}=3.9$; $F(1,113)=12.81$, $\eta=0.32$) and when the refusal is due to the retailer (service quality: $M_{refund}=4.9$, $M_{retailer\ refusal}=3.0$; $F(1,113)=41.17$, $\eta=0.52$); loyalty: $M_{refund}=5.1$, $M_{retailer\ refusal}=3.5$; $F(1,113)=24.08$, $\eta=0.42$). Interestingly, perceived price evaluations are not significantly lower when the refund is refused compared with when the retailer honors the PMG ($M_{refund}=3.8$, $M_{consumer\ refusal}=3.7$, $M_{retailer\ refusal}=3.7$; $F<1$). Further, for all three measures there was no difference between refusal conditions (price: $M_{consumer}=3.7$, $M_{retailer}=3.7$; $\eta=0$; service: $M_{consumer}=3.5$, $M_{retailer}=3.0$; $\eta=0.14$; loyalty: $M_{consumer}=3.9$, $M_{retailer}=3.5$; $\eta=0.12$) indicating that a refusal for any reason is perceived poorly. These results, while only partially supportive of Hypothesis 3, indicate that consumers do not treat refusals of a refund lightly and fail to self-attribute the reason for the refusal in their overall evaluations, consistent with the results observed based on their qualitative feedback. While providing a refund improves service quality and loyalty perceptions compared with refusing a refund, it does not impact price perceptions. Price perceptions are similar regardless of whether a refund is provided or not.

Hypothesis 4, which also was analyzed using a MANOVA design to compare the pre- and post-purchase measures, found a marginal purchase-stage by price

Figure 1 Experiment 1: Pre- and post-purchase impact of price-matching guarantees. Sample size of experiment 1=120.

difference interaction for price perceptions ($F(1{,}113)=2.19$, $p<0.10$, one-tailed). Examining the effect sizes demonstrates that the drop in price perceptions was more severe when there was a large difference (large difference: $M_{pre}=4.9$, $M_{post}=3.6$, $F(1{,}113)=40.51$, $\eta=0.51$; small difference: $M_{pre}=4.8$, $M_{post}=3.9$; $F(1{,}113)=19.19$, $\eta=0.38$). For service quality, there were significant purchase-stage by price difference interaction ($F(1{,}113)=6.31$, $p<0.01$). Service quality perceptions dropped significantly when the difference was large ($M_{pre}=4.6$, $M_{post}=3.6$, $F(1{,}113)=25.29$, $\eta=0.43$), but when the difference was small, service quality perceptions did not drop significantly ($M_{pre}=4.3$, $M_{post}=4.0$, $\eta=0.14$).

Discussion

The results of Study 1 demonstrate the effects of policy restrictions on consumers' post-purchase perceptions of the retailer. In particular, the results indicate that a retailer's decision not to disburse a price-matching refund to consumers can have a detrimental impact on their perceptions of service quality and price, as well as their loyalty levels. Study 2 will build on the results of Study 1 by examining the potential effects of time restrictions which are the dominant policy restriction found in price-matching guarantee policies.

Study 2

A central part of consumer's negative or positive reactions to PMG restrictions is contingent on when they request a PMG. Is the request within the time-period advertised (e.g., requesting a PMG prior within 30-days of purchase) or is the request after the time period has expired (e.g., after 30 days). As shown in the results of Study 1, when a consumer is granted a price-matching refund, more positive responses result than when the refund is denied, regardless of the reason for the refusal. In this study we investigate if the window of opportunity by which a deadline is missed will influence customers' perceptions.

The work of Kahneman and Tversky (1981) indicates that when consumers miss an opportunity by a slight margin, they may undertake a cognitive dissonance process by which they imagine what state they might have been in had they not missed the opportunity. The creation of such reference effects implies that, under circumstances where a customer's request for a PMG misses the policy deadline by a short window, the customer experiences feelings of regret and self-attribution for the failure. Under circumstances where the PMG deadline is missed by a significant number of days, it becomes more remote for the consumer to imagine the missed opportunity and the negative effects of the experience become less salient.

Such non-linear effects have been found in the context of product warranties, whereby product failures that occur within a short window of the warranty expiration date tend to have a greater impact on consumer evaluations than product failures that occur at a distant date following the expiration of the warranty (Lassar et al. 1999). Specifically, Lasser et al. found the non-linear effect for their quality measure, but not for affect or loyalty. Therefore, we limit our hypothesis to the service quality measure, although we report tests for all three measures. It is therefore expected that:

> *H5* When a price-matching refund is denied due to the late filing of a refund request by the consumer, the negative effects on consumer perceptions of service quality will be stronger when the deadline is missed by a short time period rather than a long time period.

To understand the role of PMGs more completely and determine the typical length of a PMG, we conducted a content analysis of 74 PMGs offered by a variety of retailers ranging from those selling home electronics and computers to those offering automotive parts, office supplies, and toys. Examples of some of the retailers studied include Best Buy, Comp USA, Sears, Toys R Us, Office Depot, and Staples. The sample was obtained by scanning descriptions of price-matching policies available in retail outlets, store flyers, local newspapers, and the Internet. For each retailer, details of the price-matching policy were recorded and subjected to content analysis. These descriptions varied considerably in length and detail, with some limited to a few lines, while others consisted of multiple paragraphs describing the detailed guidelines and restrictions of the policy.

In order to categorize the various PMGs, each policy description was examined on two specific dimensions. The first dimension related to the amount of compensation given to a customer who can redeem a price-matching refund. Table 2 provides a summary of what these amounts are. The second dimension on which the PMG policies were examined related to the length of time during which consumers can approach the seller to claim a refund. The majority of the policies that specify time constraints require consumers to file their refund request within 1 month or less. Policies that require consumers to file their claims within a week account for 51.1% of PMGs and another 42.2% allow anywhere between a week and a month from the date of purchase for the consumer to approach the retailer to request a refund. Only 6.7% of the PMG policies examined allowed refunds to be granted beyond a month following the purchase of the product. We therefore used a 30-day PMG in our scenario.

Method

Similar to Study 1, the subjects read a description of the retailer and the 30-day price-matching guarantee. The section concluded with multi-item measures of price and service perceptions. Next, subjects receive a 5-page filler task, followed by a second section of the scenario. The section described the fact that, due to necessity, the subject has purchased an item from the retailer, and then went on to inform subjects that 29 (31, 90) days after purchasing the product a lower price was found, and that the subject asked the retailer to refund the price difference. Subjects are then told that the employee responding to the price matching refund request asks to see the sales receipt and the competing store's price information. In the 29-day condi-

Table 2 Distribution of PMG policies based on compensation level

Level of compensation	Percent of PMG policies (%)
Price difference (no additional compensation)	57.5
Price difference, constrained to a specific dollar amount	4.1
Price difference + 10% of the difference	16.4
Price difference + 15% of the difference	2.7
Price difference + 50% of the difference	1.4
Price difference + 5% of higher or lower price	1.4
Price difference + 10% of higher or lower price	8.2
Price difference + 20% of higher or lower price	2.7
Price difference + fixed dollar amount (e.g., $1, $50, $100)	5.5

74 PMG policies were reviewed.

tion, the retailer then refunds the price difference. In the 31 and 90-day price conditions, the retailer explains that because the purchase was made 31 (90) days ago, and the 30-day time limit has been exceeded, the store will be unable to reimburse the price difference. The section concludes with multi-item measures of price and service perceptions, and loyalty (see Appendix 3 for stimuli).

The experimental design is a 1×3 between-subjects design, manipulating the retailer's response as a function of the number of days following the purchase when the refund was requested. The dependent measures were identical to those collected in Study 1. The scales all proved to be reliable (see Appendix 2 for cronbach's alphas). Fifty students participated in the experiment for class credit.

Results

Manipulation Checks Eighty-five percent of subjects correctly identified the number of days after purchased in which they asked for the refund. Also, there was significantly stronger agreement with the statement that "the store refunded me the price difference" in the 29-day condition (6.8) than in the 31-day (1.5) or 90-day (1.4) conditions ($F(1,43)=583.80$, $p<0.001$).

Hypotheses Tests Results for Hypotheses 1 and 2, which compared pre- and post-purchase perceptions of perceived price and service quality were analyzed using a MANOVA design, where purchase-stage was the within subject factor and the days after purchase was the between-subjects factor.

Consistent with Hypothesis 1, there is a significant drop in price perceptions after a lower price is found ($M_{pre}=5.2$, $M_{post}=3.5$; $F(1,47)=54.07$, $p<0.001$, $\eta=0.73$). This pattern (see Fig. 2) is consistently observed not only in cases where the retailer refuses to refund the price difference (31-day: $M_{pre}=5.4$, $M_{post}=3.4$; $F(1,47)=23.95$, $\eta=0.58$; 90-day: $M_{pre}=5.1$, $M_{post}=3.2$; $F(1,47)=24.38$, $\eta=0.58$), but also when a price matching refund is given ($M_{pre}=5.1$, $M_{post}=4.0$; $F(1,47)=8.33$, $\eta=0.39$).

Consistent with Hypothesis 2, there is a significant interaction of service quality evaluations between purchase-stage and the days after purchase the refund is requested ($F(2, 47)=12.32$, $p<0.001$). As shown in Fig. 2, when a full refund is provided by the retailer, post-purchase service quality evaluations increased ($M_{pre}=4.7$, $M_{post}=5.2$; $F(1,47)=1.69$, $\eta=0.19$). When the consumer requests the refund after the 30-day limit has expired, there is a notable drop in post-purchase service quality perceptions, when the limit has recently expired (31-days: $M_{pre}=5.3$, $M_{post}=3.0$, $F(1,47)=31.04$, $\eta=0.68$). When the 30-day limit has expired a while ago there is also a significant drop in service quality perception, however the drop was less than when the deadline has recently passed (90-days: $M_{pre}=4.8$, $M_{post}=3.6$; $F(1,47)=9.36$, $\eta=0.45$).

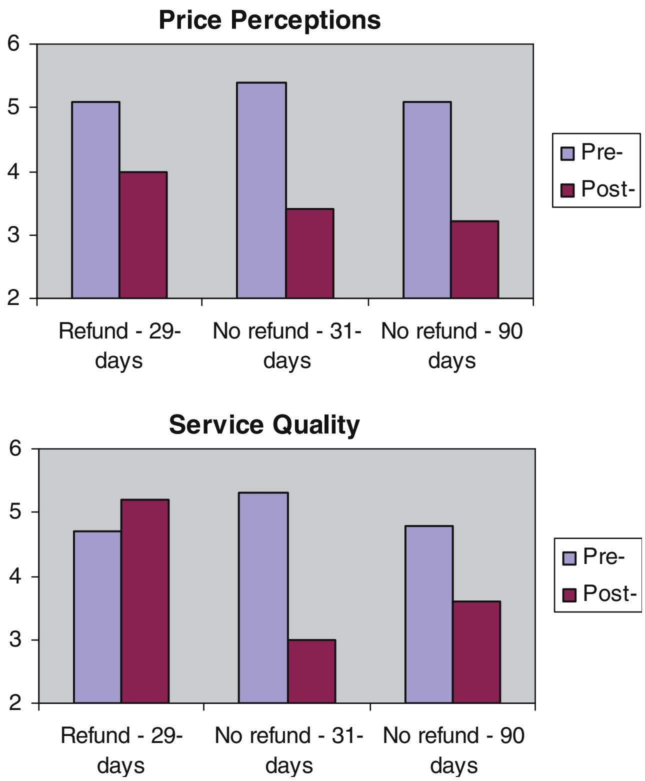

Figure 2 Experiment 2: Pre- and post-purchase impact of timing of request for honoring PMG. Sample size of experiment 2=50.

Results for Hypothesis 5, which investigated post-purchase perceptions of service quality, were analyzed using a ANOVA and follow-up contrasts where the days after purchase was the between-subjects factor. Ratings for price, service quality and loyalty are lower when the 30-day limit has recently passed and the retailer does not refund the price difference than if the deadline had not passed and the refund was provided. This is true both when the 30-day limit has recently passed ($M_{29\text{-}days}=4.0$, $M_{31\text{-}days}=3.4$, $F(1,47)=1.45$, $\eta=0.17$; service quality: $M_{29\text{-}days}=5.2$; $M_{31\text{-}days}=3.0$; $F(1,47)=26.55$, $\eta=0.60$; loyalty $M_{29\text{-}days}=4.8$; $M_{31\text{-}days}=3.3$; $F(1,47)=9.78$, $\eta=0.42$) and when the 30-day limit has passed a while ago (price: $M_{29\text{-}days}=4.0$; $M_{90\text{-}days}=3.2$; $F(1,47)=2.94$, $\eta=0.24$, service quality: $M_{29\text{-}days}=5.2$, $M_{90\text{-}days}=3.7$; $F(1,47)=14.13$, $\eta=0.48$; loyalty: $M_{29\text{-}days}=4.8$, $M_{90\text{-}days}=3.6$; $F(1,47)=7.26$, $\eta=0.37$). Consistent with H5 and findings from Lassar et al. (1999), we find that service quality perceptions are worse when the deadline has recently passed than when it passed a while ago ($M_{31\text{-}days}=3.0$,

$M_{90\text{-days}}$=3.7; $F(1,47)$=2.11, η=0.21). Consistent with Lassar et al. (1999), there is no significant difference on price and loyalty between refusals when the deadline has recently passed and when it passed a while ago (price: $M_{31\text{-days}}$=3.4; $M_{90\text{-days}}$=3.2; $F(1,47)$=0.18, η=0.06; loyalty: $M_{31\text{-days}}$=3.3, $M_{90\text{-days}}$=3.6; $F(1,47)$=0.22, η=0.07).

Discussion and conclusion

The results of the two studies demonstrate that the post-purchase behavior of a retailer can significantly influence consumer judgments and subsequent loyalty levels resulting from price-matching guarantees. These results highlight the critical importance for retailers to examine and monitor their price-matching guarantee programs. The drop in consumer evaluations of perceived price and service quality in Study 1 was found to be dramatic especially when the retailer refuses to honor a PMG, even in scenarios where justification for refusal (e.g., expiration of the time period for the PMG) exists. Instead, the most influential factor seems to be the retailer's response. Honoring the PMG policy converges with results from the service recovery literature on enhanced evaluations after a service recovery (Maxham and Netemeyer 2002). Consequently, retailers need to develop flexible PMG programs. Not being flexible in facilitating payment could end up in serious backlash, such as that faced by firms offering complicated rebate polices. These firms offering complicated rebates are facing increased scrutiny by the Stage Attorney General's offices and consumer groups (Grow and Chhatwal 2005).

The results of Study 1 also demonstrates that when the price difference between the retailer and the competitor is large, consumers view the retailer to offer significantly worse service than if the price difference had been small. Thus, consumer's reactions may be biased by contextual factors that may have no direct influence on the actual experience of the consumer when requesting a price-matching refund. These results highlight the importance of having functional and effective PMG programs in markets that exhibit high levels of price variation. Such markets are more likely to result in consumers requesting price-matching refunds and failures to refund the difference are likely to be perceived poorly by consumers—regardless of the reason.

The results of both studies provide prescriptive suggestions for developing successful pricing strategies using price-matching guarantees. The effect of retailer response on consumers' post-purchase perceptions suggests that retailers should attempt to provide price-matching refunds whenever possible even if it means relaxing the time-limit restriction. Clearly, such a strategy, while beneficial to the consumer may compromise retailer profitability, if deployed on a large, frequent and unmonitored scale. Therefore, such a strategy would have to rely on careful deployment of information technologies which would enable the recording of each individual customer's PMG refund requests. Deployment of such information technology would allow retailers to identify the few customers who may be abusing a generous approach to price-matching refunds and limit the disbursement of refunds.

Such information management deployment would also enable retailers to serve the larger mass of the market in a more positive and generous way, by implementing price-matching policies which would allow employees to use their discretion in extending the terms of a refund beyond the limitations imposed by the written policy statement. Having liberal PMG policies and providing employees discretion is especially important in light of the findings in Study 2 which demonstrate a more negative impact on consumer perceptions of refund-denials resulting from near-misses on time restrictions. A clear understanding of the patterns of refund requests and individual consumers' frequency of such requests can help shape a successful and positive PMG program for retailers.

The research presented here has been limited by several factors and can be extended in many new directions. The data collection approach used in both studies utilized controlled manipulation of hypothetical service encounters limits the external validity of the results. Use of actual field data, reflective of real consumer experiences, may have provided a more externally valid framework for analysis. However, this latter form of data is challenging to obtain, especially in light of the fact that many consumer complaints and resolution outcomes are often undocumented or untracked. Moreover, the sampling approach used in the studies was convenience-based, and a national sample consisting of a random representation of the population may have been more appropriate.

The study of price-matching guarantees is an emerging area of research which provides many avenues for future research. The study of price-matching guarantees enables a shifting of the focus of inquiry away from brand-specific perceptions, towards a more global analysis of store- and retailer-based decision making. These latter perceptions may have significant influence on a consumers' choice of retail outlets and shopping strategies.

It would be interesting to understand the impact of PMGs which not only refund consumers, but also liberally reward them for having located a lower price elsewhere (e.g., "beat the lowest price by 10%"). Consumer judgments and attributions for such PMGs might be considerably different from those offered by retailers who offer a simple refund for the price difference between the paid price and the competitor's lower price. It would be also useful to understand the market conditions that make PMGs a more attractive marketing tool. For example, markets with considerable price volatility, low production costs, or high levels of price advertising might be more in tune with the use of PMGs. Utilizing field data, future research can also examine the rate of frequency by which PMGs are requested by consumers, and how the experiences vary across product categories. The qualitative analysis indicates that, even in situations where a retailer offers a price-matching refund, a significant proportion of consumers attribute negative characteristics to the retailer (e.g., uncompetitive prices, lack of trustworthiness) It is hoped that this paper opens new lines of thought and sheds more light on consumer reactions to price-matching guarantees.

Appendix 1

Study 1: "Lowest Price Guarantee" at National Electronics Store

National Electronics Store is a retailer of home electronic products in your neighborhood. This retail store is part of a national retail chain with formal customer service policies. It is nationally recognized for outstanding customer service.

In the home electronics market, prices fluctuate a great deal from one store to the next. For the exact same item, prices might vary considerably, depending on where you buy it. For example, a $95 item can be found for $75 in one store and $149 in another store.

This store offers its buyers a "Lowest Price Guarantee." Once you've purchased an item from them, if you find the same product at a lower price elsewhere, they will reimburse you for the difference in prices.

[collect price and service measures]

Due to necessity you decide to purchase an item from National Electronics Store. You pay $149 for the item. A couple of weeks later, while scanning the local shopping mall you happen to find the exact same item for $99 in some other store. You obtain a copy of the store information for the item, and on your way home stop by National Electronics Store to inquire why you paid a higher price and to ask for your "Lowest Price Guarantee."

The employee at National Electronics Store asks to see the competing store's price information, and then reimburses you for the full amount of the difference between the price you paid and the lower price you found at the competing store.

[collect price, service, and loyalty measures]

Appendix 2

Table 3 Multi-item scales used to measure consumer response

Scale	Individual scale items[a]
Price perceptions	This store has very good prices
Study1: Pre-purchase ∀=0.8	This store's prices are likely to be below the competition
Post-purchase ∀=0.8	The prices at this store are very competitive
Study2: Pre-purchase ∀=0.7	It's very unlikely that I'll find lower prices elsewhere
Post-purchase ∀=0.9	
Service quality	This store takes good care of its customers
Study1: Pre-purchase ∀=0.9	The employees at this store are fair to customers
Post-purchase ∀=0.9	Customers are well treated in this store
Study2: Pre-purchase ∀=0.9	Employees in this store have an objective of satisfying customers
Post-purchase ∀=0.9	
Consumer loyalty	I will most likely purchase from this store in the future
Study1: ∀=0.9	This store is one that I would recommend to friends
Study2: ∀=0.9)	I'm unlikely to want to visit this store again (reversed)
	I would like to purchase from this store again
	In the future, I will not consider purchasing from this store (reversed)
	I will not purchase from this store again

[a] Items were rated on a 1-to-7 Likert rating scale, with 7 being the positive end of the scale.

Appendix 3

Study 2: "Lowest Price Guarantee" at National Computer Accessories

National Computer Accessories is a retailer of computer accessories (e.g., printers, modems, etc.) in your neighborhood. This retail store is part of a national retail chain with formal customer service policies. It is nationally recognized for outstanding customer service.

In the computer accessory market, prices are extremely unstable from one store to the next. For the exact same item, prices might vary considerably, depending on where you buy it. For example, a $95 item can be found for $35 in one store and $189 in another store.

This store offers its buyers a *"30-Day Lowest Price Guarantee."* Once you've purchased an item from them, if you find the same product at a lower price elsewhere within 30-days, they will reimburse you for the difference in prices.

[collect price and service measures]

Due to necessity you decide to purchase an item from *National Computer Accessories*. You pay $149 for the item. Imagine that it is 29 days after you made your purchase at *National Appliance Store,* and that while scanning the local shopping mall you happen to find the exact same item available at another store for a price of $99. You obtain a copy of the store information for the item, and on your way home stop by National Computer Accessories to inquire why you paid a higher price and to ask for your "Lowest Price Guarantee."

The employee at National Computer Accessories asks to see the competing store's price, and then reimburses you for the full amount of the difference between the price you paid and the lower price you had found at the competing store.

[collect price, service, and loyalty measures]

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