Does a Marketer’S Responsibility For a Surcharge Moderate Price Partitioning Effects?

Silke Bambauer-Sachse, University of Fribourg, Switzerland
Sabrina Mangold, University of Fribourg, Switzerland

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ABSTRACT
In this paper we build on an established model that contains basic effects of price partitioning and introduce a new variable which has not been considered in previous studies yet. Based on the so-developed theoretical framework, we conduct a new empirical study. The results of our empirical study show that the marketer’s responsibility for a surcharge on the base price plays an important role in the context of effects of partitioned versus total prices.

INTRODUCTION
Some products and services are divided into several (often two) components which are charged single prices but can only be bought in combination (Bertini and Wathieu 2005; Lee and Han 2002). An example is a fitness club membership and the joining fee. Morwitz, Greenleaf, and Johnson (1998) call this strategy partitioned pricing and refer to the larger price component as the base price and to the smaller component as the surcharge. Surcharges are most often monetary surcharges, but in some cases the surcharge is a percentage of the base price.

Although some authors dealt with basic effects of price partitioning and found either positive (Chakravarti et al. 2002; Morwitz et al. 1998; Xia and Monroe 2004) or negative effects (Bambauer-Sachse and Gierl 2008; Gierl and Bambauer-Sachse 2007; Lee and Han 2002), the body of research on conditions under which price partitioning is rather advantageous or disadvantageous is limited. Therefore, we build on an established model that contains basic effects of price partitioning and introduce and examine a new variable that might be relevant in the context of price partitioning effects but that has not been considered in previous studies. The variable we look at in this paper is the marketer’s responsibility for the surcharge. Examples from marketing practice show that in some cases in which partitioned prices are used, the marketer is responsible for a surcharge on the base price. For example, charging a fee for the parking lot in addition to the price for a hotel room is at the marketer’s own discretion. However, there are other cases in which the marketer is not responsible for the surcharge. For example, an airline has to charge an airport tax in addition to the price of the airline ticket itself or hotel managers have to charge a visitor tax in addition to the room price.

As attribution theory suggests that people think about the reasons other people have for a certain behavior (Kelley and Michela 1980), we think that it could be interesting to examine whether this reasoning also applies to the context of price partitioning effects and whether effects of partitioned versus total prices differ depending on the marketer’s responsibility for a surcharge on a base price.

By deriving possible effects of a new moderator variable from existing theory and testing the assumed effects in an empirical study, which means looking in detail at conditions under which price partitioning effects might differ, our paper extends the existing body of research. Therefore, the approach presented here offers new insights in the mechanisms that underlie the effects of partitioned versus total prices.

In addition to addressing researchers, our paper addresses marketers who need to know under which conditions it might be beneficial to use partitioned prices instead of total prices. By explaining under which conditions price partitioning is rather advantageous or rather disadvantageous, our research enables marketers to plan their pricing strategies more carefully when deciding whether to indicate total or partitioned prices.

THEORETICAL AND EMPIRICAL BACKGROUND
Previous Research on Effects of Price Partitioning
In a first step, we shortly summarize major findings of previous studies on price partitioning effects. Morwitz et al. (1998) found that price partitioning increases consumer demand compared to all-inclusive prices. Lee and Han (2002) report from their findings that using partitioned prices can cause negative consumer reactions, which leads to a negative change of brand attitude. Chakravarti et al. (2002) found that a product with a partitioned price for its components was evaluated more favorably and chosen more frequently than the same product with a total price. Xia and Monroe (2004) report that price partitioning has positive effects on consumers’ price satisfaction and their purchase intentions. Burman and Biswas (2007) found support for their assumption that price presentation (partitioned price vs. total price) only has effects on consumers with a high need for cognition. Their findings show that these consumers interpret partitioned prices as comparatively fair prices. Sheng, Bao, and Pan (2007) derive from their results that price partitioning (using total prices) is more advantageous with regard to purchase intention if the surcharge is only a small (comparatively large) fraction of the base price. Moreover, they found that in the case of an unfair (fair) surcharge, consumers have lower (higher) purchase intentions when exposed to partitioned prices than when exposed to total prices. A study conducted by Carlson and Weathers (2008) shows that partitioning prices into a large number of price components negatively affects perceived fairness and purchase intentions when the total price is not presented. Clark and Ward (2008) found in their study on price partitioning effects in online auctions where bidders had to pay their bid plus shipping costs that many bidders appear to be subject to an anchoring and adjustment bias or even to ignore the shipping costs completely. Thus, their findings suggest a positive effect of price partitioning. In a recent study, Hamilton and Srivastava (2008) focused on effects of different partitions of the same total price. The results of their four studies show that consumers prefer partitions in which they pay a lower amount for the low-perceived benefit component and a higher amount for the high-perceived benefit component. Bertini and Wathieu (2008) conducted four studies to examine attention arousal through price partitioning and found that total prices distract consumers from a thorough evaluation of the offer while partitioned prices draw consumers’ attention to secondary product attributes.

Two studies that are most appropriate to build the basis of our new empirical study are the studies conducted by Bambauer-Sachse and Gierl (2008) and Gierl and Bambauer-Sachse (2007). In one of their papers, they developed and tested a basic model that is able to reflect both positive and negative effects of price partitioning (vs. using total prices) on product evaluation. In a consecutive study, they extended this model by including the cognitive effort spent on processing price information as a moderator variable. The major finding of this study was that using partitioned prices can only be recommended if consumers spend little cognitive effort in the situation of processing price information and if low surcharges
Theoretical Background of Basic Price Partitioning Effects

In the context of explaining price partitioning effects, three variables proved to be relevant mediators in the relation between price presentation (partitioned prices vs. total price) and product evaluation (Bambauer-Sachse and Gierl 2008; Gierl and Bambauer-Sachse 2007). These variables are perceived price attractiveness, clarity versus complexity of the price structure (Xia and Monroe 2004) and consumers’ feeling of being manipulated by the marketer.

Price Attractiveness. The concept of price attractiveness has often been analyzed in studies on pricing effects (Danziger and Segov 2006; Janiszewski and Lichtenstein 1999) and refers to the idea that consumers have beliefs about normal prices for certain product categories and that they judge prices on this basis. Xia and Monroe (2004) referred to a similar concept as “satisfaction with the price”. Lichtenstein, Bloch, and Black (1988) used the term “price acceptance” for a similar phenomenon. Some theoretical approaches that are appropriate to explain the effect of price partitioning on perceived price attractiveness let assume a positive effect whereas others suggest a negative effect. As previous studies found this effect to be predominantly positive (Bambauer-Sachse and Gierl 2008; Gierl and Bambauer-Sachse 2007), we only summarize theoretical approaches that provide arguments for a positive effect.

When being faced with partitioned prices consumers can either ignore the surcharge which is the smaller price component (Morwitz et al. 1998) or try to calculate the total price. In the first case, perceived price attractiveness is believed to be comparatively high because one price component is not at all processed. In the second case, most of the consumers are believed to apply simplifying heuristics (Tversky and Kahneman 1974) to estimate the total price because they might find it too difficult to exactly calculate the total price (Biswas and Burton 1993). One such heuristic that lets assume positive effects on perceived price attractiveness is the so-called anchoring and adjustment heuristic (Block and Harper 1991; Carlson and Weathers 2008; Chapman and Johnson 1994; Davis, Hoch, and Ragsdale 1986; Iacowitz and Kahneman 1995; Northcraft and Neale 1987). Applying the anchoring and adjustment argument to the processing of partitioned prices leads to the assumption that consumers anchor on the base price, the larger price component. Estimating the total price by starting from this anchor is likely to lead to an estimate that is biased toward the base price (Morwitz et al. 1998). Consequently, price attractiveness is believed to be comparatively high.

Consumers’ Feeling of Being Manipulated by the Marketer. The fact that consumers might feel manipulated by the marketer can be based on the following arguments. Research on consumer persuasion knowledge provides the notion that consumers develop beliefs about the objectives marketers pursue with certain persuasion strategies (Friestad and Wright 1994; Hardesty, Bearden, and Carlson 2007). Research on pricing strategies has shown that consumers sometimes speculate on the marketer’s motives for applying certain strategies (Hamilton and Koukova 2008; Homburg, Hoyer, and Koschat 2005). This phenomenon occurs when prices are unusual, for example, in the case of an unexpected price increase (Campbell 1995; Maxwell 1995). As price partitioning might come across unexpectedly and surprisingly in some situations, consumers might speculate on the marketer’s motives for using this pricing technique. Thus, a plausible explanation from the consumer point of view might be that the marketer tries to mask a possibly excessive total price and to mislead the consumer by indicating a partitioned price, which serves to increase his profit. When being faced with partitioned prices consumers are believed to ascribe a higher manipulative intent to the marketer than when being faced with total prices because they might assume that the marketer tries to mislead them by using several price components. This assumption is likely to lead to a comparatively unfavorable product evaluation.

Theoretical Background of Effects of the Marketer’s Responsibility

In this section, we argue that the marketer’s responsibility for a surcharge has a moderating effect on the three basic effects of price partitioning versus using total prices discussed above.

Before presenting a theoretical background of effects of the marketer’s responsibility, we have to differentiate the concept of responsibility considered here from another concept which might appear as a similar concept but which is different in fact. Sheng et al. (2007) examined effects of perceived fairness in the context of consumers’ processing of partitioned prices. This latter concept is broader than the marketer’s responsibility because the surplus can be perceived as being unfair for other reasons than for the reason that the marketer is responsible for this surcharge.

In order to explain the role of the marketer’s responsibility for the surcharge in the context of price partitioning effects, we draw on attribution theory which has already been applied to other contexts where people try to explain the behavior of other people they are in any relationship with. Such contexts were for example employees who tried to understand the rationale behind certain management practices of their employer (Nishii, Lepak, and Schneider 2008), consumers’ coping strategies with regard to disasters related to companies they were customers of (Jorgensen 1994), customers’ reactions to negative publicity for a company (Dean 2004; Griffin, Babin, and Attaway 1991), consumers’ responses to negative word of mouth communication (Laczniak, DeCarlo, and Ramaswami 2001), and consumers’ reactions to product failure (Folkes 1984).

Attribution theory in general deals with causal principles that people use to explain other people’s behavior. According to this theoretical approach, people have a basic need to predict and control the environment. Understanding the causes of behaviors or events enables them to do so (Heider 1958). Moreover, people’s interpretations of causes of behavior have effects on their attitudes and their own behavior (Kelley and Michela 1980). Furthermore,
when people try to find reasons for a certain behavior of other people, they think about whether the locus of causality is internal (dispositional) or external (environmental) to the person of interest (Kelley and Michela 1980). Internal attributions are more strongly related with cognitions, feelings, and behavior (Weiner et al. 1972) than external attributions which reveal less about the underlying motivation of the behavior of the person of interest (Jones, Davis, and Gergen 1961; Jones and McGillis 1976; Kelley and Michela 1980). Following these arguments, we assume that consumers try to elaborate whether the marketer is responsible for charging a surcharge on a base price. Moreover, attribution research provides the notion that the more a person judges another person to be responsible for his or her behavior, the stronger is the effect of this behavior from the first person’s point of view (Weiner 1979). Thus, transferred to the case considered here, we argue that if consumers have the impression that the marketer is responsible for charging the surcharge, the effect of charging the surcharge is comparatively strong. Combining this assumption with the notion that price partitioning (vs. using total prices) has positive effects on price attractiveness leads to our first hypothesis:

H1: If the marketer is responsible (not responsible) for the surcharge, price attractiveness is higher in the total price (partitioned price) condition.

Furthermore, attribution literature provides the argument that frustrating actions that are internally attributed have even more intensive and more negative effects (Kelley and Michela 1980) than externally attributed actions. Transferred to the case considered here, we argue that the fact of being confronted with such a negative add-on as a surcharge on a base price is somehow frustrating to consumers. Consequently, we argue that consumers’ belief that a marketer is responsible for the surcharge has comparatively negative effects and thus worsens negative effects of using partitioned prices. Based on these arguments, we assume with respect to the two mediator variables that mirror negative effects of price partitioning:

H2a: The feeling of being manipulated by the marketer is stronger in the case of partitioned than in the case of total prices.

H2b: In the partitioned price condition, the feeling of being manipulated is even stronger if the marketer is responsible for the surcharge.

H3a: Perceived complexity of the price structure is stronger in the case of partitioned than in the case of total prices.

H3b: In the partitioned price condition, perceived complexity of the price structure is even higher if the marketer is responsible for the surcharge.

The theoretical considerations presented above lead to the research model shown in Figure 1.

**Research Model**

In order to analyze moderator effects of the marketer’s responsibility for the surcharge in the context of price partitioning effects, we integrate the new variable into the basic model of price partitioning effects described by Bambauer-Sachse and Gierl (2008). The resulting model is shown in Figure 1.

**EMPIRICAL STUDY**

**Experimental Design**

In our empirical study we used partitioned prices that consisted of two components and total prices. We chose test stimuli that were familiar to the respondents. Furthermore, the examples were chosen in compliance with the condition that both total and partitioned prices were realistic for these products. We only used a low monetary surcharge because high and percentage surcharges have been shown to have negative effects in previous studies (Bambauer-Sachse and Gierl 2008; Gierl and Bambauer-Sachse 2007; Sheng et al. 2007). The selected surcharge amount was 3.5 percent of the base price. With regard to many real surcharges in marketing practice, this amount is a realistic value. In addition, this amount falls into the range of low surcharges proposed by Sheng et al.
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(2007). We chose two examples for each experimental condition (city hotel, airline ticket). Table 1 gives an overview of the chosen product examples and their prices. The total product prices are equal across conditions.

Responsibility was manipulated by selecting different types of surcharges a marketer typically is responsible for. In the “marketer is responsible” condition, we used parking and fuel fees as surcharges. In the “marketer is not responsible” condition, we used a visitor and an airport tax as surcharges. Regarding the responsibility manipulation we did a manipulation check with two objectives. First, we intended to prove that the responsibility manipulation has been generally successful. Second, we wanted to show that the manipulations are comparably successful for the two different products. The results (mean values, t-test statistics) of the manipulation check are summarized in Table 2.

The findings in Table 1 show that the responsibility manipulation has been successful and that the manipulations are comparable across product examples. However, one might criticize that the responsibility for the surcharge is confounded with product attributes because different product attributes were chosen to represent the responsibility conditions (e.g., surcharge for parking vs. surcharge for visitor tax). However, we think that choosing two different product attributes that realistically represent responsibility is more credible than using only one attribute for the surcharge and manipulating responsibility by indicating in one condition that the marketer is responsible for the surcharge and indicating in the other condition that the marketer is not responsible for the same surcharge.

Scenarios and Measures

We created short scenarios containing product and price information to put the respondents in purchase situations which were as realistic as possible. The basic scenarios for both product examples were as follows: “Please imagine you are planning a weekend in Paris, you are planning to get there by car, and you are looking for a nice hotel” (city hotel) and “Please imagine you are planning to visit a good friend in Berlin over the weekend and you decide to go there by plane because doing so saves lots of time” (airline ticket). The varying scenario descriptions that followed these basic scenarios are shown in Table 3.

The model variables were measured by using several items. Price attractiveness was measured by using three items such as “well-priced” (Alpha=.91). The feeling of being manipulated and perceived complexity of the price structure were operationalized through two items each. The items used to measure the feeling of being manipulated were “supplier demands an unfair price” and “my friends would judge this price as being unfair” (correlation:.53). Perceived complexity of the price structure was measured by using the items “price presentation is unclear” and “cannot notice this price at a glance” (correlation:.62). Product evaluation was operationalized through four items such as “this offer is convincing” (Alpha=.93). We used seven-point scales to measure the model constructs. High/low scale values represent a positive/negative product evaluation, high/low price attractiveness, high/low perceived complexity of the price structure, and a strong/weak feeling of being manipulated by the marketer. The sufficiently high Alpha values and correlations allow for calculating the overall construct values as arithmetical means of the single indicators for each construct. These arithmetical means are used in the analyses presented subsequently.

The constructs perceived complexity of the price structure and feeling of being manipulated might be considered as being related. However, the correlation between both variables is comparatively low (.204). Consequently, both constructs can be clearly separated from each other.

Procedure

160 respondents (75 men, 85 women) participated in our study in 2008 in Germany (80 participants per experimental group). Each respondent evaluated the two product examples shown in Table 2 in the same experimental condition. Having each participant evaluating two examples served as a sample multiplier. The respondents read the first scenario, evaluated the first product, and indicated their perception of price attractiveness, of complexity of the price structure and their feeling of being manipulated by the marketer (statements on 7-point scales). They then read the second scenario
and completed the corresponding scales. The order of the scenarios varied from person to person to counterbalance order effects. Finally, the respondents provided demographic information. Both groups are structurally equal with regard to age ($t=1.04$, $p>0.10$) and gender ($X^2=1.26$, $p>0.20$).

### Data Analysis and Results

The paths of the basic model have already been tested in previous studies (e.g., Bambauer-Sachse and Gierl 2008; Gierl and Bambauer-Sachse 2007), but for reasons of completeness, we show that the data collected for this study are able to reproduce the assumed effects. In a first step, we prove the existence of the right part of our research model (effects of the mediator variables on product evaluation). The results of a regression analysis ($R^2=.71$) show that perceived price attractiveness ($\beta=.65$, $t=15.10$, $p<.001$) has a significantly positive effect on product evaluation, whereas perceived complexity of the price structure ($\beta=-.10$, $t=-3.48$, $p<.01$) and the feeling of being manipulated ($\beta=-.23$, $t=-4.71$, $p<.001$) have significantly negative effects on product evaluation.

In the second step, we focus on the left part of the research model that consists of the effects of price partitioning versus using total prices on the mediator variables as well as of the moderator effect of the marketer’s responsibility. The effects assumed with regard to this part of the model are examined by using an ANOVA with interaction effects. The results are summarized in Table 4.

With regard to the effect of price presentation on perceived price attractiveness, the results show that if the marketer is not responsible for the surcharge, perceived price attractiveness is

### Table 3

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Marketer is responsible</th>
<th>Marketer is not responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product example</strong></td>
<td><strong>Total price condition</strong></td>
<td><strong>Partitioned price condition</strong></td>
</tr>
<tr>
<td>City hotel (room price per night)</td>
<td>The hotel that meets your expectations best, offers you a room at $\mathop{\text{€}}^{+}60$ per night including parking lot.</td>
<td>The hotel that meets your expectations best, offers you a room at $\mathop{\text{€}}^{+}58$ per night plus $\mathop{\text{€}}^{+}2$ for the parking lot.</td>
</tr>
<tr>
<td>Airline ticket (flight price)</td>
<td>The flight that fits best into your schedule is offered at $\mathop{\text{€}}^{+}90$ including fuel charges.</td>
<td>The flight that fits best into your schedule is offered at $\mathop{\text{€}}^{+}87$ plus $\mathop{\text{€}}^{+}3$ fuel charge.</td>
</tr>
</tbody>
</table>

### Table 4

<table>
<thead>
<tr>
<th>Effects on the Mediator Variables</th>
<th>Interaction effect of price presentation and marketer’s responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediator variable</td>
<td>Marketer is not responsible for the surcharge</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Perceived price attractiveness$^1$</td>
<td>4.49</td>
</tr>
<tr>
<td>Feeling of being manipulated$^3$</td>
<td>2.86</td>
</tr>
<tr>
<td>Perceived complexity of the price structure$^2$</td>
<td>2.58</td>
</tr>
</tbody>
</table>

1: 1=very low price attractiveness, ..., 7=very high price attractiveness  
2: 1=low complexity, ..., 7=high complexity  
3: 1=weak feeling of being manipulated, ..., 7=strong feeling of being manipulated by the marketer
higher in the partitioned price condition than in the total price condition \(M=4.90 \text{ vs. } 4.49, t=1.68, p<.05\). However, contrary to the initial assumption we found that if the marketer is responsible for the surcharge, perceived price attractiveness is not significantly higher in the total price condition than in the partitioned price condition \(M=4.89 \text{ vs. } 4.87, t=0.09, p>.10\). Thus, the data indicate that the positive sign of the effect of price partitioning on perceived price attractiveness does not turn negative if the marketer is responsible for the surcharge. However, the positive effect is neutralized if the marketer is responsible for the surcharge. Consequently, hypothesis 1 is only partly supported.

With regard to the effect of price presentation on consumers’ feeling of being manipulated, the results show that the feeling of being manipulated is significantly higher in the partitioned price condition than in the total price condition (marketer is not responsible: \(M=4.70 \text{ vs. } 2.86, t=7.49, p<.001\); marketer is responsible: \(M=5.11 \text{ vs. } 4.80, t=1.39, p<.10\)). Moreover, in the partitioned price condition, consumers’ feeling of being manipulated is even stronger if the marketer is responsible for the surcharge \(M=5.11 \text{ vs. } 4.70, t=2.04, p<.05\). Thus, hypotheses 2a and 2b are supported.

The findings for the effect of price presentation on perceived complexity of the price structure show that price structure is perceived as being more complex in the partitioned price condition than in the total price condition (marketer is not responsible: \(M=3.04 \text{ vs. } 2.58, t=1.79, p<.05\); marketer is responsible: \(M=4.94 \text{ vs. } 3.18, t=2.52, p<.01\)). In addition, the results indicate that in the partitioned price condition, perceived complexity is significantly higher if the marketer is responsible for the surcharge \(M=4.94 \text{ vs. } 3.04, t=7.71, p<.001\). Thus, hypotheses 3a and 3b are supported.

**CONCLUSION**

The goal of the present paper was to draw on previous research on price partitioning effects and to extend the existing body of research by examining moderator effects of a new variable that might play a role in the context of price partitioning effects.

First of all, our data confirmed the paths assumed in the basic models by Bambauer-Sachse and Gierl (2008) and Gierl and Bambauer-Sachse (2007). Moreover, the results of our study show that the marketer’s responsibility indeed plays an important role in the context of effects of partitioned versus total prices. In more detail, we found that, when processing partitioned prices, consumers consider whether the marketer is responsible for the surcharge on the base price or not. Based on our finding that negative effects of price partitioning are less strong if the marketer does not account for the surcharge, we recommend using partitioned prices only under this condition. In cases where the marketer is responsible for the surcharge, the negative effects of using partitioned instead of total prices are even stronger.

A first starting point for further studies might be to analyze circumstances that drive consumers to ascribe responsibility for a surcharge to a marketer. In addition, we suggest analyzing price partitioning effects in field experiments in retail stores because up to now, such effects have only been analyzed in simulated experiments. Moreover, it might be interesting to examine price partitioning effects for very low vs. very high priced products because the products considered in the study here are medium-priced. Finally, consumers’ knowledge about the marketer’s objectives that are pursued with a specific pricing strategy might also play a role in the context of effects of partitioned prices and thus might be an interesting variable to be examined in further studies.

**REFERENCES**


