MIXED-JOINT OR MIXED-LEADER BUNDLE? THE FRAMING EFFECTS OF PRICE DISCOUNT ON BUNDLE EVALUATIONS

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This research tests the framing effects of bundle price discount on consumer evaluations of a bundle. Drawing upon attribution theory, this article investigates consumers' diversified responses to a mixed-joint and a mixed-leader bundle with an equivalent price discount. The results of this study indicate that a mixed-leader bundle generates more negative attributions pertaining to bundle components, leading to less favorable attitudes toward the bundle than a mixed-joint bundle. Theoretical implications of the findings and future research directions are discussed at the end.

INTRODUCTION

Bundling, the sale of two or more separate goods or services in one package, is widely practiced in the marketplace. For example, McDonald's offers combo menus in which burgers are sold along with a portion of French fries and a soft drink. Travel agencies offer plans with airfare, lodging, and a rental car. Software companies, like Microsoft, provide supplementary applications with the prime systems.

Consistent with Guiltinan (1987), marketers can employ two bundling strategies: pure or mixed. In pure bundling, the goods or services are available only in the bundled form and they cannot be purchased separately. We are not concerned with pure bundling in this study because it is applicable only in relatively rare cases. In mixed bundling, a consumer can purchase the bundle, or purchase products presented in the bundle separately. Mixed bundling is currently the pervasive form of bundling in the marketplace, and can be further classified into *mixed-leader* and *mixed-joint* bundles. For simplicity, we consider only bundles of two products and/or services in this article. In a mixed-leader bundle, the price of one product is discounted while the other is listed at the regular price. That is, given regular prices P_A and P_B, consumers can buy the bundle at $P_A + P^*_B$, where P^*_B is the discounted price of product B (For convenience of discussion, we assume that product B is the discounted product hereinafter). In a mixed-joint bundle, only a single price P_{A+B} is set for the bundle ($P_{A+B} < P_A + P_B$). Following are two generic examples of mixed-joint and mixed-leader bundles:

Mixed-Joint Bundle

Regular Price	Bundle
A: $200 B: $100	Buy A and B as a set at $250

Mixed-Leader Bundle

Regular Price	Bundle
A: $200 B: $100	Buy A at $200 and B at $50 as a set

A framing effect occurs when individuals respond differently to different descriptions of the same decision problem (Frisch 1993). Framing on decision problems impacts an individual's judgments and preferences (Kahneman and Tversky 1979; Tversky and Kahneman 1981). Framing effects have been shown to be an important factor influencing consumer response to marketing stimuli (Levin and Gaeth 1988; Heath, Chatterjee and France 1995). As shown above, these two bundles offer exactly the same amount of price discounts, which is $50. However, consumers

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might be sensitive to the framing of bundle price discounts, leading to diversified attitudes toward the bundle, which in turn can influence the profitability of a bundling strategy. The fundamental thesis guiding this research is that consumers will attribute the bundle discounts to certain kind of marketing tactics or promotions. The framing of a bundle price discount will alter consumer attributions of the bundle, thus, generating different consumer evaluations. Surprisingly, given the practical importance of bundling, few studies have focused specifically on which of these two forms of bundling is more attractive to consumers. This represents a significant gap in both theoretical research and marketing practice.

The remainder of the paper is structured as follows. First, I formulate the current research in bundle price discount framing, identifying existing gaps in the current literature. Secondly, I draw upon attribution theory to develop a conceptual model and a set of hypotheses about the framing effects of bundle price discount. I then test our model and hypotheses using structural equation modeling on the samples in our experimental study. I end by discussing our results, managerial implications, limitations, and directions for future research.

BACKGROUND

Several slightly different definitions of bundling have appeared in the literature of bundling research. Adams and Yellen (1976, p. 475) define bundling as "selling goods in packages." Guiltinan (1987, p. 74) defines bundling as "the practice of marketing two or more products and/or services in a single package for a special price." Yadav and Monroe (1993, p. 350) define it as "the selling of two or more products and/or services at a single price." Following previous research, we define bundling as the sale of two or more separate products or services in one package.

Previous research about bundling can be classified into three streams: 1) economic analyses of bundling (Stigler 1968; Adams and Yellen 1976; Telser 1979); 2) marketing research about the optimality of bundling using an applied economic approach (Guiltinan 1987; Hanson and Martin 1990; Eppen, Hanson and Martin 1991); and 3) behavior research in consumer evaluations of bundles (Gaeth, Levin, Chakraborty and Levin 1990; Masumdar and Jun 1993; Yadav and Monroe 1993; Yadav 1994, 1995; Harlam, Krishna, Lehmann and Mela 1995; Johnson, Herrmann and Bauer 1999). In the behavioral research stream of bundling, some researchers have already examined the bundle price framing effects.

Principles of mental accounting (Thaler 1985) and prospect theory (Kahneman and Tversky 1979) have spawned extensive behavioral research about the framing effects of bundling and debundling of price information. In prospect theory, outcomes are framed as positive (gains) or negative (losses) deviations from a reference point. An individual's value function is concave in gains and convex in losses, i.e., both the gain and loss functions display diminishing sensitivity. This feature reflects the basic psychophysical principle that the difference between $10 and $20 looms larger than the difference between $100 and $110. Extending from this principle, the literature on mental accounts suggests that people perceive multiple gains as more rewarding than a single gain and multiple losses as more punishing than a single loss of the same dollar amount. In a bundling context, consumers will perceive a single price (loss) as less punishing than multiple prices (losses). They will evaluate a single bundle price more favorably than one that explicitly sums the prices of the separate products. Therefore, a bundled price should result in more positive consumer evaluations than a presentation of individual component prices, while the debundling of price discount should result in more positive evaluations than a single discount. Consistent with the predictions of prospect theory and mental accounting, marketing researchers have demonstrated that consumer evaluations increase when prices or price increases are bundled and price discounts are debundled (Mazumdar and Jun 1993;

Johnson, Herrmann and Bauer 1999). In conclusion, the evaluation of a bundling offer is sensitive to the framing of prices and discounts in the presentation of the offer. This research stream provides a psychological understanding of the profitability of bundling.

Yadav (1994) constructs a weighted additive model to investigate which product should be discounted in a bundle, addressing another important framing issue in the bundling context. This model incorporates the anchoring and adjustment heuristic (Tversky and Kahneman 1974) to examine consumers' evaluation processes of a bundle. Yadav (1994) proposes that people scan a bundle to identify the most important product, evaluate this product at its offer price, then evaluate additional products in the bundle, updating the bundle evaluation as they proceed. The whole evaluation process engages a weighted-additive model, i.e., the overall evaluation of a bundle will be a weighted sum of the individual items' evaluations. This weighted-additive model is represented as: $V = Sw_iv_i$, where w_i is the importance of the i^{th} product, v_i is the evaluation of the i^{th} product. Yadav (1995) further proposes that the most valued product in the bundle will receive the most weight when product evaluations are summed. For example, consumers prefer to receive a discount on a liked magazine, as opposed to a disliked magazine, in a bundle of the liked and disliked magazines. Thus, a discount applied to the most important product should be more positively evaluated. This model only discovered the differential benefit of assigning a discount to one or another product in the mixed-leader bundle, without comparing consumer evaluations of a mixed-joint and a mixed-leader bundle.

As illustrated above, the current research about the framing effects of bundle price discount primarily focuses on consumer evaluations of the financial merits of a bundle. Thaler (1985) suggests that two kinds of value (utility) are postulated in consumer evaluations of a transaction: acquisition value and transaction value. Acquisition value represents the perceived economic gain or loss associated with a purchase and is a function of product utility and purchase price. Transaction value concerns the level of satisfaction solely with the financial terms of the transaction, and may be determined by comparing the selling price to the internal reference price (Thaler 1985; Grewal, Monroe and Krishnan 1998). Similarly, the overall evaluation of a bundle should also be composed of acquisition value and transaction value. Acquisition value depends on non-financial evaluations of a bundle, while transaction value depends solely on the evaluations of financial merits of a bundle, i.e., price discounts. The latter is well studied in current research, but bundle price discount framing effects on consumers' non-financial evaluations of a bundle are generally ignored. Combining both the financial and non-financial perspectives of consumer evaluations of a bundle, we will obtain a more comprehensive understanding of bundle price discount framing effects. Next, we draw upon attribution theory to develop the conceptual model and hypotheses.

CONCEPTUAL MODEL AND RESEARCH HYPOTHESES

In practice consumers constantly estimate what is responsible for, or causes various events. The process of estimating causes is called attribution. This approach to understanding the reasons consumers assign particular meanings to the behaviors of others has been primarily used for analyzing consumer reactions to promotional messages. For instance, when consumers attribute a sales motive to advice given by a salesperson or advertising message, they tend to discount the advice. Consequently, these attributions will influence consumer evaluations of sales and shopping or purchase intentions (Lichtenstein and Bearden 1986; Lichtenstein, Burton and O'Hara 1989).

In terms of the focus of attribution, it has been theorized that attributions pertaining to the person, the stimulus, or some specific circumstance exhaust the attributional

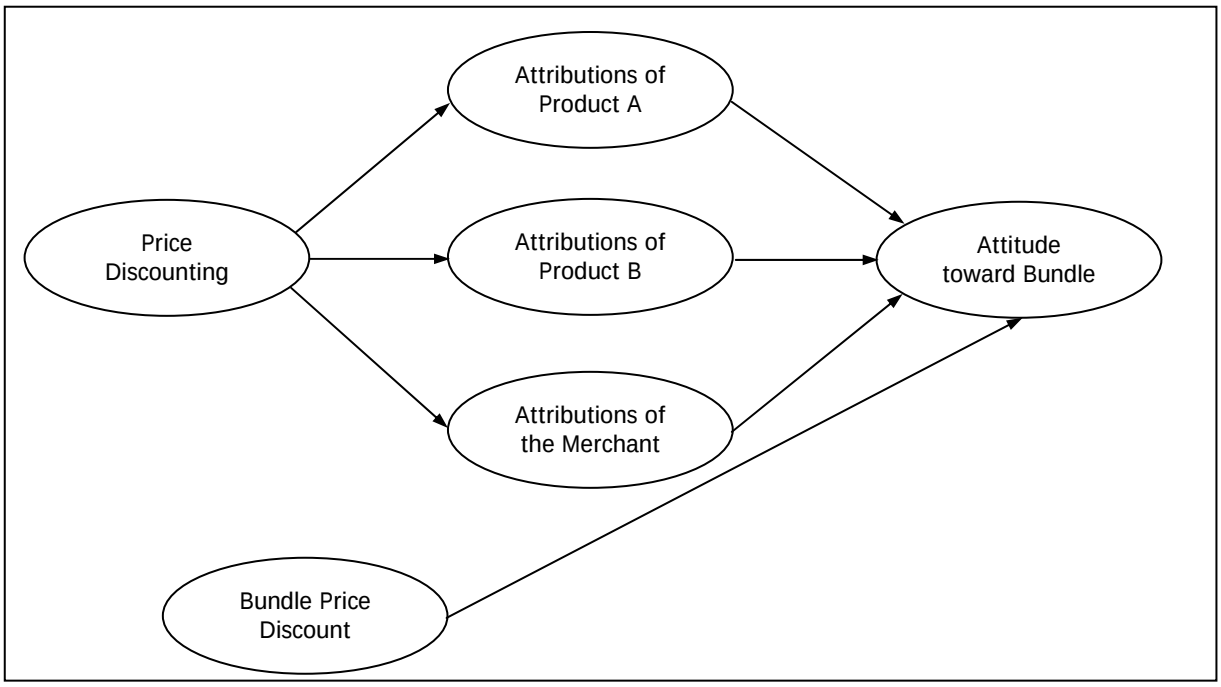
possibilities of the causal space (Kelley 1973; Kelley and Michela 1980). In retail price advertisements, the relevant types of attributions pertain to the merchant advertiser (person), the advertised product (stimulus), and circumstances (Lichtenstein and Bearden 1986). Prior research has indicated that attributions pertaining to the merchant (person) will possibly generate positive sale evaluations (Burton et al. 1994). Consumers will possibly attribute a sale or price discount to the merchant's motive to "enhance customer goodwill" or as "passing on savings from bulk purchases from manufacturers," and so on. In contrast, because many consumers believe there is a positive relationship between price and product quality (Rao and Monroe 1989), a price discount or a sale may be perceived as related to something negative about the product (such as out-of-date models or inferior quality). Thus, attributions pertaining to products may have negative effects on sale evaluations and/or purchase intentions (Lichtenstein, Burton and O'Hara 1989; Burton et al. 1994). Attributions pertaining to circumstances may vary from one another, and they will have mixed effects on sales evaluations, leading to no overall effects (Burton et al. 1994). Therefore, this article does not address the influence of circumstance attributions.

Existing research about consumer evaluations of bundling primarily focuses on consumer financial evaluations of price information (Masumdar and Jun 1993; Yadva and Monroe 1993; Yadav 1994; Johnson, Herrmann and Bauer 1999). However, we propose that bundle price discount framing, i.e., forms of bundling, will affect consumer attributions of a bundling offer, thus, influencing consumer attitudes toward a bundling offer. Figure 1 depicts the role of attribution in consumer evaluations of a bundle.

In a mixed-joint bundle, only a single price is set for the bundle as a whole. The price discount is not presented explicitly related to either product in the bundle. Then, the bundling practice will be more likely attributed as a tactic used solely to increase sales of both products. Simultaneously, the bundle price discount might be attributed as a way to provide fairness to consumers. In the marketplace, "the rules that govern public perceptions of fairness should identify situations in which some firms will fail to exploit apparent opportunities to increase their profits" (Kahneman, Knetsch and Thaler 1986, p. 729). Although the economic analysis of bundling based on the consumer reservation price distribution (Adams and Yellen 1976) suggests that a merchant can exploit consumer surplus by offering a bundle without a discount, the rule of fairness constrains its profit seeking behavior. A firm is not allowed to increase its profits by arbitrarily violating the "entitlement" of its transactors. It is perceived unfair for the merchant to exploit all extra profits from a sales increase. A bundle without a price discount violates the "rule of fairness" of transactions. This also explains why there is generally a price discount associated with a price bundle which does not provide product integration. In a mixed-joint bundle, consumers are more likely to perceive the price discount as a way to keep the fairness in the transaction, rather than a way to promote something of low quality. Mentally, consumers are less likely to allocate the joint-price discount on any specific product in the bundle. In the attribution process, they are more likely to generate positive attributions pertaining to the merchant, such as "the merchant is trying to provide us with a good deal," "the merchant is trying to increase sales," "the merchant is trying to be fair to consumers," or "to attract more customers." Therefore, consumers are less likely to attribute the bundle price discount to negative product merits.

However, in a mixed-leader bundle, one product (say, product B for current discussion and hereinafter) is discounted whereas the other is listed at its regular price (see the generic examples presented at the beginning of the article). Such a bundle will likely be attributed to a marketing promotion. The relevant attributions may pertain to both the bundling tactic and the price discount in the bundle.

FIGURE 1
The Framing Effect of Bundling on Bundle Evaluations



Because many consumers believe there is a positive relationship between a price and product quality (Rao and Monroe 1989), the discounted bundle item (product B) may be perceived as of inferior quality or inferior performance. The bundling strategy itself may make the consumer attribute that bundle items are promoted by each other. This attribution will also lead to lower perceived quality of items in the bundle. In this situation, bundling is perceived as an obvious promotion strategy, and consumers are less likely to make positive merchant attributions. Thus, we have the following hypotheses:

H_1: A mixed-leader bundle will generate more negative attributions pertaining to the undiscounted product (A) than a mixed-joint bundle.

H_2: A mixed-leader bundle will generate more negative attributions pertaining to the discounted product (B) than a mixed-joint bundle.

H_3: A mixed-leader bundle will generate less positive merchant attributions than a mixed-joint bundle.

Consumer attributions pertaining to the "causes" of marketing events will affect consumer evaluations or responses to a certain marketing behavior. For example, when consumers attribute a sales motive to advice given by a sales person or advertising message, they tend to discount and downplay the advice. In contrast, similar advice given by a friend would likely be attributed to a desire to be helpful and might therefore be accepted. Prior research has found that product attributions made about the discounted products (such as price reduced due to low quality, unknown brand names, or out-of-date design or technology) have negative effects on sale evaluations and purchasing intentions (Lichtenstein, Burton and O'Hara 1989; Burton et al. 1994). Similarly, in the bundling context, we anticipate that product attributions will have negative impacts on consumer attitudes toward the bundle:

H4: The negative attributions pertaining to product A will lead to unfavorable attitudes toward the bundle.

H_5: The negative attributions pertaining to product B will lead to unfavorable attitudes toward the bundle.

In contrast, merchant attributions concerning rational, tactical decisions of the retailer are viewed as offering a positive opportunity for consumers to increase the value received given the price paid for a product. Thus, merchant attributions have a positive effect on sale evaluations and purchase intentions (Lichtenstein, Burton and O'Hara 1989; Burton et al. 1994). Similarly, in a bundling context, merchant attributions concerning the retailer's willingness to provide consumers with a good deal, added value, fairness, and/or to increase sales will also have a positive effect on consumer evaluations of a bundle. Thus, we have the following hypothesis:

H_6: There will be a positive relationship between merchant attributions and attitudes toward the bundle.

A bundle often offers a price discount to increase its attractiveness. A bundle price discount is usually perceived by consumers as a gain, which increases consumer transaction value (Yadav and Monroe 1993). Transaction value concerns the perceived pleasure or displeasure associated with the financial aspect of the purchase and is determined by comparing the selling price to internal reference prices (Thaler 1985; Grewal, Monroe and Krishnan 1998). Grewal, Monroe, and Krishnan (1998, p. 48) further define transaction value as "the perception of psychological satisfaction or pleasure obtained from taking advantage of the financial terms of the price deal." Then, the greater the bundle price discount, the higher transaction value a consumer will perceive in the bundle. The increased psychological satisfaction or pleasure will lead to a favorable attitude toward the bundle. Thus, we have the following hypothesis:

H_7: The greater the bundle price discount, the more favorable are consumer attitudes toward the bundle.

METHOD

Experimental Design

We employed a 2 (price discount: low/high) × 2 (framing of bundle price discount: mixed-joint/ mixed-leader) × 2 (familiarity: low/high) experimental design to test our conceptual model. A disk sander (regular price $100) and a 10-inch miter saw (regular price $100) represented the unfamiliar product category; a clothes washer (regular price $400) and a clothes dryer (regular price $400) represented the familiar product category. For both mixed-joint and mixed leader bundles, the low price discount was 10 percent off the sum of the regular prices of the two bundle items, whereas the high price discount was 30 percent. In the mixed-joint bundle, only a total bundle price was presented to subjects. In the mixed-leader bundles, product B (the miter saw or the clothes dryer, respectively) was discounted, product A (the disk sander or the clothes washer) was presented at the regular price. For example, a mixed-joint bundle of a clothes washer and a clothes dryer was presented as "buy the washer and the dryer as a set at $720", whereas the corresponding mixed-leader bundle was phrased as "buy the clothes washer at $400 and the clothes dryer at $320 as a set." For all experimental conditions, the individual bundle items are also presented to the subjects for separate purchases at the regular prices. In order to exclude the potential confounding influence of relative value (or importance) of bundle items, the regular prices of the bundle items were set equal in a bundle.

The manipulation of product familiarity was intentionally designed to exclude potential confounding effects of subject involvement. We employed college students as subjects. A general concern of using college student subjects is the lack of knowledge about stimuli and thus low involvement in the experiment.

Therefore, we manipulated product familiarity level in the study to examine the potential effects due to low subject involvement. Generally speaking, participants will have higher involvement levels for familiar products than for unfamiliar products.

Procedure

A total of 127 undergraduate students in an eastern university participated in the study as a class requirement. The sample was equally distributed between female (65) and male (62). The majority (97.6 percent) of the subjects were 19 to 24 years old. Participants were randomly assigned to one of the eight experimental conditions. After being exposed to the bundle, participants responded to questions regarding their attitudes toward the bundle and attributions about the merchant and individual products in the bundle. At the end of the study, demographics were obtained.

Measures

Attributions were measured using seven-point Likert scales with endpoints of "improbable" and "probable." Individual items were drawn from prior research pertaining to attributions (Lichtenstein and Bearden 1986; Lichtenstein, Burton and O'Hara 1989). Product attributions consisted of "the x (product name) is inferior," "the x is unpopular," "the x's performance is poor." Merchant attributions were measured by items of "the merchant wants: to increase sales/ to attract more customers/to get rid of current inventory." Cronbach αs of attributions of product A, product B and merchant were .91, .94, and .73, respectively.

The dependent variable, consumer attitude toward the bundle was measured with four seven-point bipolar scales (e.g., dislike/like the bundle, unfavorable/favorable, bad/good, unattractive/attractive). Cronbach $\alpha = .95$.

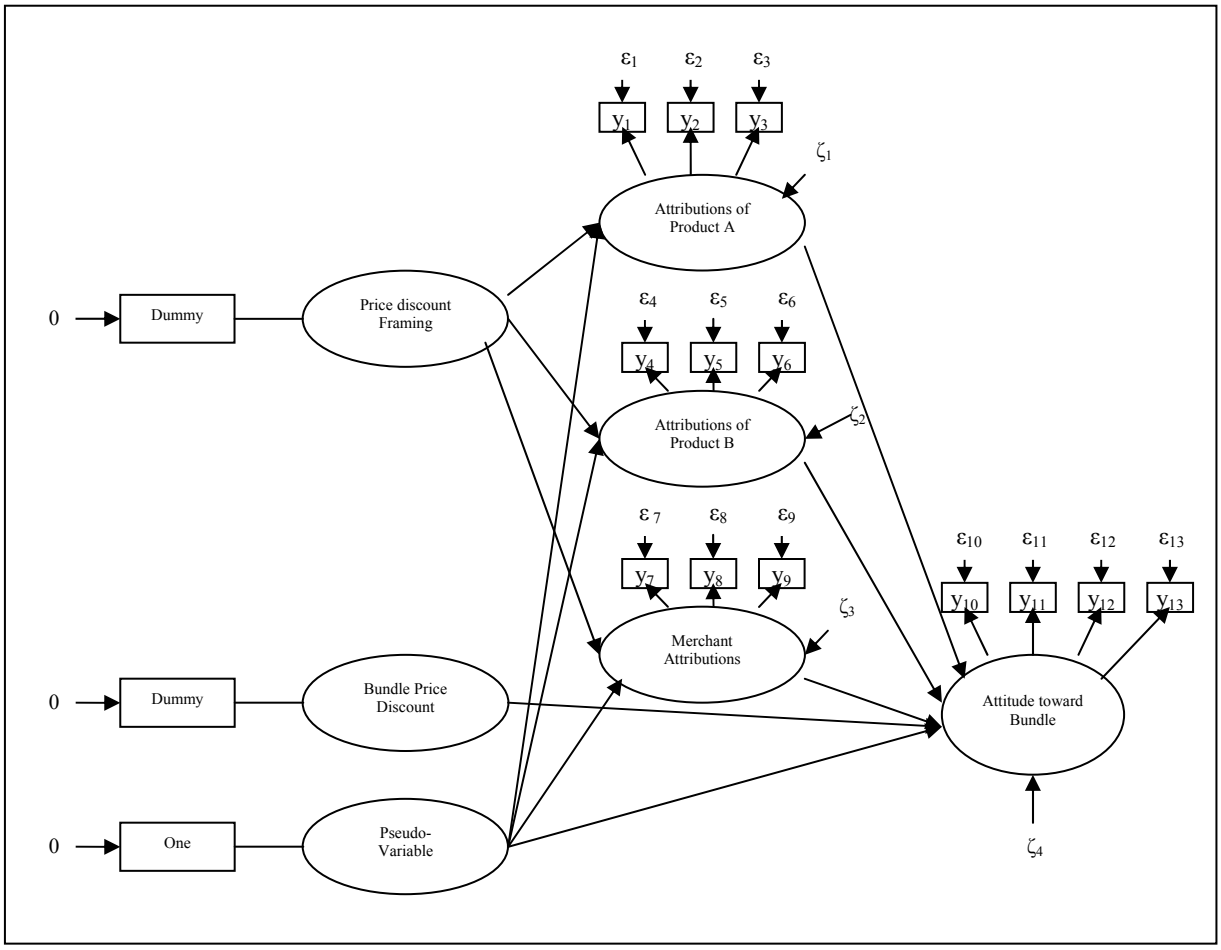
Analytic Approach

I followed Bagozzi and Yi (1989) to use structure equation modeling to test the conceptual model and hypotheses. The structural equation model has two advantages: first, the conceptual model is a path model, and the relevant paths are tested directly and simultaneously, and none is omitted as in an ANOVA. Second, the structural equation model directly incorporates measurement errors. As shown in Figure 2, the model includes two dummy exogenous variables, bundle price discount and price discount framing. Bundle price discount was coded as a value of 1 when bundle price discount was high, and 0 when bundle price discount was low. Bundle price discount framing was coded as 1 for mixed-leader bundle, and 0 for mixed-joint bundle. Both dummy variables were expressed as exogenous latent variables with a single indicator and no corresponding residuals (Lx = 1.0; TD = 0). Because the exogenous variables were categorical, we added a pseudovariable (i.e., "one") to the model and used the augmented moment matrix in the LISREL analysis (see Bagozzi and Yi 1989 for a detailed explanation of this procedure). The augmented moment matrix was generated by PRELIS.

Results

Table 1 reports the parameter estimates and goodness-of-fit indices of the structural equation model. The path model demonstrated an acceptable fit ($\chi^2 = 364.20$, df = 96, $p < .01$; CFI = .89, NFI = .87, NNFI = .86). Overall, our conceptual model was well supported by empirical results. Furthermore, the squared multiple correlations (SMC) for all endogenous variables were relatively high (attributions of product A: SMC = .64; attributions of product B: SMC = .67; merchant attributions: SMC = .87; attitude toward the bundle: SMC = .73), indicating that a large portion of variance of all endogenous variables was explained by their predictors. In addition, the indirect effect of price discount framing on consumer attitudes

FIGURE 2
The Structural Equation Model



toward the bundle was significant (estimate = -.29, p<.05). It proved that consumer attitudes toward the bundle were more favorable in a mixed-joint bundle than in a mixed-leader bundle. We now outline the findings for each of our hypotheses.

H_1 and H_2. As predicted by Hypotheses 1 and 2, a mixed-leader bundle leads to more negative product attributions of product A (γ = .60, t = 4.59, p < .01) and attributions of product B (γ = .65, t = 5.58, p < .01) than a mixed-joint bundle. Both Hypotheses 1 and 2 were supported.

H_3. Hypothesis 3 deals with the impact of price discount framing on merchant attributions. It predicts that a mixed-leader bundle will generate less positive merchant attributions than a mixed-joint bundle. However, Hypothesis 3 was not supported (γ = -.08, t = -.29). We suspect that in the bundling context, consumers might be more likely to attribute a bundling offer to causes related to the products than to the merchant's goodwill or fairness.

H_4. In Hypothesis 4, we predict that there is a negative relationship between attributions pertaining to product A and consumer attitudes toward the bundle. However, we failed to observe a significant path in the current study (γ = .03, t = .17). This might be due to the fact that the discounted product B in the bundle drew most attention from an individual during the evaluation process.

H_5 and H_6. Hypothesis 5 deals with the impact of attributions of product B on consumer attitudes toward the bundle, predicting a negative relationship. Hypothesis 5 was supported (β = -.47, t = -2.73, p < .01). The negative attributions such as low quality and poor performance of the discounted product did hurt consumer attitudes toward the bundle. However, Hypothesis 6 was not statistically supported (β = .08, t = .90).

H_7. Hypothesis 7 predicts that the greater the bundle price discount, the more favorable are consumer attitudes toward the bundle, as supported by the experimental result (β = .64, t = 2.78, p < .01).

Potential Effects of Product Familiarity. I applied multiple-group structural equation modeling (Bagozzi and Yi 1989; Bollen 1989; Joreskog and Sorbom 1993) to test the potential confounding effects of product familiarity, examining whether or not a subject's familiarity level changes path estimates. The full sample was split into two groups by the manipulation of familiarity (low/high). In the unconstrained model (M0), all the paths were allowed to vary freely across two groups. In the constrained model (M1), all paths were set invariant across two groups. I used the chi-square difference between the constrained model (M1) and the unconstrained model (M0) to test the potential moderating effect of product familiarity. The results demonstrated that subject product familiarity did not significantly alter path estimates in the model ($\Delta\chi^2$ (5) = 9.42, p = .09).

Discussion

The results demonstrated that consumers had more favorable attitudes toward a mixed-joint bundle than a mixed-leader bundle with an equivalent price discount. The result of the simple main effect test examining the impact of the bundle price discount framing on consumer attitudes toward the bundle was also consistent with findings discussed above. Subjects had more favorable attitudes toward a mixed-joint bundle ($M_{mixed\text{-}joint}$ = 5.02) than toward a mixed-leader bundle ($M_{mixed\text{-}leader}$ = 3.44, F = 39.97, p < .001). In a mixed-leader bundle, subjects were more likely to attribute the bundling strategy to something negatively related to the bundle components. These negative product attributions in turn affected consumer attitudes toward the bundle. Participants also generated attributions pertaining to the merchant. However, the influence of bundle price discount framing on merchant attributions was not significant.

GENERAL DISCUSSION

Given the increasing use of bundling strategy for marketing practice, how consumers evaluate a bundling offer has warranted and received increased attention from consumer researchers. The current research adds value to this growing body of literature by examining how bundling price discount framing (mixed-joint or mixed-leader bundle) influences consumer attitudes toward a bundle. In responses to the research questions posed earlier, the present investigation has demonstrated that consumers have more favorable attitudes toward a mixed-joint bundle than a mixed-leader bundle.

The conceptualization guiding the present investigation provides a useful framework for marketing mangers in developing tactics to enhance consumer attitudes toward a bundle. Economic analysis suggests that a mixed-bundle is more profitable than a pure bundle. However, we have not previously provided any managerial insights regarding which mixed-bundle (mixed-joint or mixed-leader) a marketer should employ. Based on findings of this paper, a mixed-joint bundle might outperform a mixed-leader bundle with the same bundle price discount. In other words, a bundle with a single discounted total price might be more likely to increase sales than a bundle in which one product is listed at the regular price whereas another is discounted. This is also consistent with the pervasiveness of mixed-joint bundles in marketing practice, such as one-price fast food combos, travel plans, and cable, DSL and phone services.

TABLE 1
Structural Parameter Estimates

				Estimates	t-value
Hypotheses/paths:					
H_1: Price discount framing[a]→ attributions of product A				.60**	4.59
H_2: Price discount framing→ attributions of product B				.65**	5.58
H_3: Price discount framing→ merchant attributions				-.08	-.29
H_4: Attributions of product A → attitude toward bundle				.03	.17
H_5: Attributions of product B → attitude toward bundle				-.47**	-2.73
H_6: Merchant attributions → attitude toward bundle				.08	.90
H_7: Bundle price discount → attitude toward bundle				.64**	2.78
Indirect effect:					
Price discount framing → attitude toward the bundle				-.29*	-2.04
Squared multiple correlations of endogenous variables:					
Attribution of product A	.64				
Attribution of product B	.67				
Merchant attribution	.87				
Attitude toward the bundle	.73				
Model fit					
χ^2	364.20	CFI	.89		
Df	96	NFI	.87		
P	0	NNFI	.86		

Note:
a: Price discount framing was coded as 1 for the mixed-leader bundle, and 0 for the mixed-joint bundle.
* $p < .05$
** $p < .01$

Our study has some limitations which point to directions for further research in this area. Caveats generally associated with behavioral experiments using student subjects are applicable here. One limitation arises with respect to the artificial manner in which bundling offers were presented to subjects. Subjects were asked to evaluate the bundles on the basis of information presented in scenario descriptions. Possibly, the restricting nature of this manner limits the external validity of these results.

Both conceptually and empirically, we focused only on price information of a bundle in our research. As advocated by Yadav (1994) and Yadav and Monroe (1993), future research should also focus on the joint-effect of price and non-price information in bundle evaluations. For example, brand information plays a critical role in consumer evaluations of a marketing offer (Keller 1993). Then, how the bundle price discount framing effects interplay with brand information of bundle components might be a promising future research stream. Specifically, a strong brand image of bundle components might eliminate the effects of negative product attributions caused by a mixed-leader bundle. Thus, in a mixed-leader bundle, the positive effects predicted by mental accounting theory might outperform the effects of negative product attributions predicted by attribution theory. Then, with the interplay of brand information, we might need to modify the findings in our current study. This might be a fascinating avenue to explore the subject.

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