# How to Frame Cost Information? Testing the Mediating Role of Perceived Gains and Losses in an Effective Cost Transparency Strategy 

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Introduction: A growing number of fashion brands (e.g., Everlane, Oliver Cabell, Honest By) voluntarily disclose their cost structures in order to elicit favorable consumer responses, such as perceptions of price fairness and brand credibility (Mohan, Buell, \& John, 2015). Through this cost transparency strategy, firms can emphasize a lower markup rate than that of their competitors, which makes consumers perceive their given retail prices as relatively low, thereby building a credible relationship with customers. Previous research has argued that there are benefits and challenges inherent in this strategy (Kuah \& Weerakkody, 2015; Singh, 2015), yet little is known about how consumers would respond to diverse cost information if it was framed differently. Built on the prospect theory, this study posited that consumers' perceived gains and losses will vary according to the ways companies frame their cost information, and the mediating roles of perceived gains and losses in the relationship between cost information and price fairness, which in turn will increase buying intentions toward the brand.
Hypotheses Development: The prospect theory argues that perceived gains or losses are determined relative to their deviation from a reference point (Tversky \& Kahneman, 1981). People are likely to evaluate their gains and losses depending on the deviation of either from a given reference point, and to perceive outcomes above a reference point as gains and below as losses (Tversky \& Kahneman, 1981). Thus, depending on their reference point, people may estimate gains and losses differently in the same information. This study posited that traditional retail, which has an inferior cost structure due to its higher markup rate as compared to the focal brand, may serve as a reference point, and that people perceive more gains (by purchasing products from the focal brand) and more losses (by not purchasing products from the brand) when an inferior reference point is given. These relative values (i.e., gains and losses) led by differently framed cost information can affect consumer evaluations such as price fairness (Tversky \& Kahneman, 1981), rather than cost information per se. Price fairness was also found to be an indicator to increase buying intention (Xia \& Monroe, 2010). Thus, the hypotheses are: H1. Cost information with an inferior reference point increases perceived gains and losses, H2. Perceived gains and losses increase perceptions of price fairness, H3. Perceived gains and losses Page 1 of 3

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mediate the effect of cost information on perceptions of price fairness, and $\mathbf{H 4}$. Price fairness increases buying intentions. H5. Perceived gains and losses increase buying intentions.
Method: This study developed a between-subjects experimental design with a 3 (retail price) X 4 (cost information) stimuli. The stimuli were developed in the form of a mock advertisement in which retail price and cost information were manipulated using an image of a beige-colored cashmere sweater. For the manipulation of the retail price of the sweater, $\$ 60, \$ 120$ and $\$ 180$ were chosen considering the standard market price (e.g., Grana, J.Crew etc.) of \$90-150. Cost information was manipulated at four levels by using true cost, markup rate and traditional retail cost information; $\mathbf{C 0}$ (control): retail price of the sweater only, $\mathbf{C 1}$ (itemized cost): retail price + true cost + markup rate of the sweater, C2 (lower retail price than traditional retail): lower retail price + same true cost + lower markup rate of the sweater than those of traditional retail, and C3 (higher true cost than traditional retail): same retail price + higher true cost + lower markup rate than those of traditional retail. All true cost, markup rate information etc. were developed based on an actual brand's website (www. Grana.com). An online survey was developed in which perceived gains, losses, price fairness and buying intentions were measured. Also, as the sweater's image may affect consumers' perceptions, we controlled for respondents' evaluation of product attractiveness. All measurements were borrowed from previous studies. A total of 804 U.S. residents aged 18 years and above responded to the survey and were randomly assigned to one of 12 conditions.
Results: Two-way ANCOVA results showed that gains and losses did not differ by retail price ( $\mathrm{F}_{\text {Gain }}=1.95$, $\mathrm{F}_{\text {Loss }}=2.45, p>$ .05 ) and thus we ran path analyses without controlling for the price effect. Cost information was operationalized as multicategorical variables in this study, so we first coded four cost information treatments as three dummy variables and the control group (C0) served as the reference group (Hayes \& Preacher, 2014). Both gain and loss models (Figure 1) showed acceptable model fits with the data (Gain: $\chi^{2}=6.28, d f=3, p=.09$, $\mathrm{CFI}=$ .99 , GFI $=.99$, RMSEA $=.04$, Loss: $\chi^{2}=$ 6.27, $d f=3, p=.09$, CFI $=.99$, GFI $=.99$,


Figure 1. Research Models and Path Analysis Results Note. Dotted lines indicate insignificant paths. Solid lines indicate significant paths at $\mathrm{p}<.001$ level.

RMSEA $=.04$ ). All three types of cost information ( $\mathrm{C} 1, \mathrm{C} 2$ and C 3 ) increased perceived gains ( $\gamma_{11}=.16, \gamma_{12}=.39, \gamma_{13}=.24, p<.001$ ) and losses $\left(\gamma_{11}=.18, \gamma_{12}=.45, \gamma_{13}=.26, p<.001\right)$ respectively, and gain ( $\beta_{21}=.25$ ) and loss perceptions ( $\beta_{21}=.23$ ) increased price fairness, supporting H 1 and H 2 . Direct effects of cost information on price fairness were not found, and a bootstrapping method confirmed that cost information indirectly increased price fairness in both models, indicating the moderating roles of perceived gains and losses, and thus H 3 was supported. Price fairness enhanced buying intentions in both the gain ( $\beta_{32}=.45$ ) and loss ( $\beta_{32}=$ .46) models, supporting H4. H5 was also supported in that perceived gains ( $\beta_{31}=.20$ ) and losses ( $\beta_{31}=.18$ ) directly increased buying intentions as well as indirectly through price fairness.
Discussions: Based on the prospect theory, these findings supported the importance of perceived gains and losses in increasing price fairness by confirming that disclosure of cost information per se did not elicit positive perceptions, but only through consumers' perceived gains and losses were their perceptions positively influenced. This result also suggested that the effectiveness of a cost transparency strategy depends on how the cost information is framed. As shown in Figure 1, in both models, C 2 increased gains and losses the most, as compared to C 1 and C 3 , implying that showing a lower retail price with a lower markup rate than the traditional retail price, as well as the type of reference point (i.e., C2 and C3) also resulted in different levels of effectiveness. These findings suggested valuable marketing implications for developing effective cost transparency messages.

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