

## **Attribute Framing in Former Price Comparison Advertisements<sup>1</sup>**

Using an experimental design, in this paper we investigate the impact of alternative framing of a factually equivalent price comparison advertisement on the key outcome variables of believability, transaction value, acquisition value, search intention and purchase intention. We find that consumers do respond differently when the same factual information is framed in a different manner in former price comparison advertisements and that the attribute framing variable impacts in particular on assessments of transaction value, believability and purchase intention.

**Professor James F Devlin, Nottingham University Business School<sup>2</sup>**  
**Professor Christine Ennew, Nottingham University Business School**  
**Ms Sally McKechnie, Nottingham University Business School**  
**Dr Andrew Smith, Nottingham University Business School**

### **Introduction**

For some time the powerful effects of framing for decisions under risk have been known (Tversky and Kahneman 1981) and some effort has been made to apply these insights to consumer decision making (e.g. Thaler 1985; Diamond and Sanyal 1990). The essential lesson from generic framing research is as follows: the framing method can affect the final decision i.e. even when factual information is the same for two cases the biasing of the frame can affect the proposed outcome or solution nominated by a subject. One of the great playgrounds for framing has been marketing. Marketing practitioners and particularly advertisers have been intuitively aware of the potential of framing for some decades. Any advertisement represents an artifact with a number of framing elements that can be varied depending on the objective. However a great amount of research on framing relies on comparison of a distinct positive versus a distinct negative frame. This is particularly true of *attribute framing* (see Levin *et al.*, 1998) for example something can be described as 10% fat or 90% fat free. The literature on graphical presentation formats suggests that where the positive and negatives are a little more ambiguous and based on visual representations of numeric data, a type of attribute framing still occurs (see Mussweiler and Schneller 2003; Diacon and Hasseldine 2006). In this paper we propose that consumers may react differently to alternative visual presentations of the same basic price offer in comparison price advertising. For example a discounted price of something costing £100 can be framed as £10 off or 10% less. One is not positively or negatively biased *per se*, the two are merely different representations of the same data. It follows that one may be more effective than the other and that advertisers may know this and therefore display a tendency to use certain numerical frames over others that are factually equivalent.

The literature covering comparison price advertising is well rehearsed (see Compeau and Grewal, 1998 for a thorough review), with a consumer's Internal Reference Price (IRP) being noted as an important influence on decisions, as well as the believability associated with a particular offer. Key outcome variables are the transaction and acquisition value associated with an offer, as well as the intention to continue searching or alternatively purchase the offer in question.

There are very few insights into how the more nuanced form of framing discussed above might impact on the consumer's response to comparison price advertising, hence the impetus for the experiment reported in this paper. We investigate the impact of alternative framing of a factually equivalent price comparison advertisement on the key outcome variables of believability, transaction value, acquisition value, search intention and purchase intention. The insights gained will be of interest to marketing practitioners, but also to policymakers as they seek to ensure that consumers are not unduly influenced by exaggerated former prices in advertisements.

### **Methodology**

An experimental methodology was adopted for the study. The context of the study was a package vacation, where advertisements featuring comparison with a former price are common. Our experiment was a 3 x 3 design, with three methods of "attribute framing" and three discounts sizes incorporated into the study. Discount size has been shown to influence consumers response to former price comparisons (Urbany *et al.*, 1988; Grewal *et al.*, 1998; Compeau and Grewal, 1998). The low, medium and high discount sizes were informed by a pre-study which included an audit of print media and in-store promotions and were 10%, 30% and 45% respectively

or the monetary equivalent. The alternative attribute framing of the offer was also informed by the pre-study and was as follows; the offer was framed as either a % discount with former and selling price specified, an absolute monetary discount with former and selling price specified or a discount from a brochure price with former and selling price specified<sup>3</sup>. A measure of the consumer's IRP was included as a covariate, similar to Grewal et al (1998). The main dependent variables included in the study were believability, acquisition value, transaction value, intention to search and intention to purchase. All measurements used were taken from previous studies, such as Urbany et al. (1988) and Grewal, et al (1998). All measurement reliabilities were comfortably above the 0.7 level for Cronbach's Alpha generally deemed acceptable. The experiment was administered via the web, and was incentivized with a small amount being paid to a nominated charity for each completed response. 97 responses were collected, distributed roughly evenly between cells. The data were then subject to MANCOVA analysis.

## Results and Discussion

The multivariate tests indicated that all covariates, main effects and interaction effects in the model were significant. The IRP covariate was shown to impact in particular in acquisition value and search intention, indicating that consumers do use an IRP to an extent when processing and evaluating former price comparison advertisements. Although the size of discount was shown to be significant in the multivariate test, it was not shown to impact significantly on any particular dependent variable in univariate tests. The attribute framing variable impacted on transaction value, believability and purchase intention. Post-hoc tests indicated that a brochure price was more believed and associated with a greater intention to purchase. A significant interaction effect was also noted between discount size and attribute framing which significantly influenced acquisition value and purchase intention. When a high discount is present, attribute framing incorporating a brochure price leads to far higher assessments of acquisition value and purchase intention than other forms of attribute framing.

Overall, our results indicate that consumers do respond differently when the same factual information is framed in a different manner in former price comparison advertisements. In particular, framing the offer as a discount from a brochure price tends to add to the credence associated with an offer, and this effect is particularly marked when combined with a high level of discount. From a policymaking perspective, our results provide some cause for potential concern. Should a less scrupulous firm inflate the original brochure price, then there is a high chance that consumers will act on this information in a manner which is potentially detrimental to them. As brochure price is a somewhat nebulous concept, which can be inflated by adding surcharges etc, there is a significant danger of consumers being misled and suffering detrimentally as a consequence.

## References

- Diacon, S and Hasseldine, J (2006) "Framing Effects and Risk Perception: The Effect of Prior Performance Presentation Format on Investment Fund Choice" *Journal of Economic Psychology*, Forthcoming 2006
- Diamond, W D and Sanyal, A (1990) "The Effects of Framing on the Choice of Supermarket Coupons" *Advances in Consumer Research*, 7, ACR, pp 488-493
- Compeau, L D., & Grewal, D (1998). "Comparative advertising: An Integrative review". *Journal of Public Policy and Marketing*, 17(Fall), 257-273.
- Grewal, D, Monroe, K B and Krishnan, R (1998) "The Effects of Price-Comparison Advertising on Buyers' Perceptions of Acquisition Value, Transaction Value and Behavioral Intentions" *Journal of Marketing*, 62 (April) pp 46-59.
- Levin, I., Schneider, S., & Gaeth, G. (1998). All frames are not created equal: A typology and critical analysis of framing effects. *Organizational Behavior and Human Decision Processes*, 76, 149-188.
- Mussweiler, T., & Schneller, K. (2003). "What goes up must come down" – How charts influence decisions to buy and sell stocks. *Journal of Behavioral Finance*, 4, 121-130.
- Thaler, R (1985) "Mental Accounting and Consumer Choice" *Marketing Science*, 4(3), pp199-214.
- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453-458.
- Urbany, J E, Bearden, W O and Weilbaker, D C (1988) "The Effect of Plausible and Exaggerated Reference Prices on Consumer Perceptions and Price Search" *Journal of Consumer Research*, 15, June, pp 95-110.

## Endnotes

---

<sup>1</sup> This research was funded by the Office of Fair Trading, London, UK

<sup>2</sup> Corresponding author: Professor of Marketing, Nottingham University Business School, Jubilee Campus, Nottingham, NG8 1BB, United Kingdom, Phone: +44 115 951 5264 E mail: James.Devlin@nottingham.ac.uk

<sup>3</sup> As there is no Manufacturer's Recommended List Price for a service offering, a Brochure price was used as an equivalent