The Effect of Primed and Framed Reference Points on Product Attribute Importance

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INTRODUCTION

Identifying product attributes that are important in judgment and choice is a key objective of consumer research. A wide variety of methods to identify important attributes has been proposed and examined (Van der Pligt et al. 2000). However, the convergent validity among these methods is low, and sometimes replications even yield inconsistent results (Jaccard, Brinberg, and Ackerman 1986). Low levels of validity and reliability can cause serious empirical and practical problems.

The main objective of this research is to gain a deeper understanding of the effect of consumers' reference points on product attribute importance. Building on the reference-dependent theory (Tversky and Kahneman 1991), we show that the importance of an attribute in judgment and choice is larger if the attribute levels in the product space represent a loss, relative to the consumer's reference point. Subsequently, we demonstrate how the effect of consumers' reference points on the importance of attributes in consumer judgment and choice can be strengthened by priming consumers' reference points. The results guide researchers how to improve the validity and reliability of attribute importance measurement and provide marketing managers with tools to influence the importance of attributes in consumer judgment and choice.

THE EFFECT OF REFERENCE POINTS

The importance of attributes in judgment and choice is reflected in the size of the difference in valuation of different attribute levels (cf., conjoint method) and depends on the differences in attribute levels in the product space examined (Tversky and Simonson 1993). The larger the difference in attribute levels, the more important the attribute becomes. Research on the importance of attributes in consumer judgment and choice generally ignores the use of reference points (as opposed to some research on the effect of reference points in consumer decision-making–e.g., Putler 1992). However, if consumers weigh losses more heavily than gains as is suggested by the reference-dependence theory, we should find that *the importance of an attribute is larger if the attribute levels in the product space represent a loss as opposed to a gain relative to consumers' reference point* (cf., Bell and Bucklin 1999).

Study 1 and Results

The first hypothesis was tested through a field experiment involving close to 400 consumers. The participants judge four apples (1=low preference, 11=high preference) with respect to their price (\$0.89 vs. \$1.49 per lbs) and taste (sweet vs. sour), using a full factorial design (four product profiles). In line with our hypothesis, the results show that the importance of attributes in consumer judgment depends on the consumers' reference point, and on whether the attribute levels in the product space represent gains or losses relative to that reference point. The importance of an attribute is larger when the attribute levels represent losses compared to the consumers' reference point than when they represent gains. This effect is found both for the price and the taste attribute.

THE EFFECT OF PRIMED AND FRAMED REFER-ENCE POINTS

Consumers' internal reference points are based on past personal experiences with the attribute. What remains unclear is what happens if this internal reference point is primed? The effects of priming on consumer information processing and judgment and choice are well documented (Yi 1990). We hypothesize that if an attribute is primed and the attribute information becomes more salient in consumers' memory, the effect of the reference point on the importance of the attribute in the consumer judgment and choice increases. The rationale for this hypothesis is that more salient reference points will result in a more intense loss or gain experience by consumers.

Next to studying the effect of priming consumers' reference points, we investigate the effect of framing consumers' reference points. The effects of framing on consumer judgment and choice are well-known (Tversky and Kahneman 1981). Most framing studies frame the outcome of a decision, an attribute of a product, or the goal of an action or behavior (Levin, Schneider, and Gaeth 1998). Contrary to most research, we frame consumers' reference point of an attribute. We frame reference points both as losses and gains and examine how these framed reference points subsequently affect the importance of attributes in consumer judgment. Building on our first hypothesis, we hypothesize that *the importance of an attribute with a reference point that is framed as a loss is larger than the importance of the same attribute with a reference point that is framed as a gain.*

Study 2 and Results

To examine the effect of priming and framing consumers' reference points, a controlled lab experiment, involving 193 US students at a large Midwestern university, was conducted. Participants are asked to judge four orange juice profiles, described based on two attributes: price (\$1.90 vs. \$3.50 per gallon) and vitamin content (20% vs. 90% of daily required value).

The participants in the priming condition were asked which attributes they consider when buying orange juice. If participants mentioned price and/or vitamin content, we considered the reference points related to the attributes to be primed. The results suggest that priming consumers' reference points may increase the impact of these reference points and loss aversion on the importance of attributes in consumer judgment by increasing the salience of the reference points and the related degree of experienced loss aversion.

The participants in the framing condition either read a cover story that framed the vitamin content as a loss or a gain by describing the popularity of orange juice with a specific vitamin content. Price was not framed. The results do suggest that framing attributes may alter the importance of attribute in consumer judgment. Attributes that are framed as a loss tend to become more important in consumer judgment.

2 / The Effect of Primed and Framed Reference Points on Product Attribute Importance

DISCUSSION

Our findings may facilitate researchers to improve the validity and reliability of attribute importance measurement by explicitly accounting for this effect of reference points and loss aversion in attribute importance measurement. Understanding these effects of reference points also may provide marketers with tools to alter the importance of attributes in consumer judgment and choice.

REFERENCES

- Bell, David R. and Randolph E. Bucklin (1999), "The Role of Internal Reference Points in the Category Purchase Decision," *Journal of Consumer Research*, 26 (September), 128-143.
- Briesch, Richard A., Lakshman Krishnamurthi, Tridib Mazumdar, and S.P. Raj (1997), "A Comparative Analysis of Reference Price Models," *Journal of Consumer Research*, 24 (September), 202-214.
- Hardie, Bruce G.S., Eric J. Johnson and Peter S. Fader (1993), "Modeling Loss Aversion and Reference Dependence Effects on Brand Choice," *Marketing Science*, 12 (Fall), 378-394.
- Jaccard, James, David Brinberg and Lee J. Ackerman (1986), "Assessing Attribute Importance: A Comparison of Six Methods," *Journal of Consumer Research*, 12 (March), 463-468.
- Kalyanaram, Gurumurthy and John D.C. Little (1994), "An Empirical Analysis of Latitude of Price Acceptance in Consumer Package Goods," *Journal of Consumer Research*, 21 (December), 408-418.
- Leigh, Thomas W., David B. MacKay, and John O. Summers (1984), "Reliability and Validity of Conjoint Analysis and Self-explicated Weights: A Comparison," *Journal of Marketing Research*, 21 (November), 456-462.
- Levin, Irwin P., Sandra L. Schneider, and Gary J. Gaeth (1998), "All Frames are Not Created Equal: A Typology and Critical Analysis of Framing Effects," *Organizational Behavior and Human Decision Processes*, 76, 149-188.
- Mayhew, Glenn E. and Russell S. Winer (1992), "An Empirical Analysis of Internal and External Reference Prices Using Scanner Data," *Journal of Consumer Research*, 19 (June), 62-70.
- Mazumdar, Tridib and Purushottam Papatla (2000), "An Investigation of Reference Price Segments," *Journal of Marketing Research*, 37 (May), 246-258.
- Myers, James H. and Mark I. Alpert (1968), "Determinant Buying Attitudes: Meaning and Measurement," *Journal of Marketing*, 32 (July), 13-20.
- Putler, Daniel S. (1992), "Incorporating Reference Price Effects into a Theory of Consumer Choice," *Marketing Science*, 11 (Summer), 287-309.
- Srull, Thomas K. and Robert S. Wyer (1980), "Category Accessibility and Social Perception: Some Implications for the Study of Person Memory and Interpersonal Judgments," *Journal of Personality and Social Psychology*, 38 (June), 841 -856.
- Tversky, Amos and Daniel Kahneman (1981), "The Framing of Decisions and the Psychology of Choice," *Science*, 211, 453-458.
- Tversky, Amos and Daniel Kahneman (1991), "Loss Aversion in Riskless Choice: A Reference-Dependent Model," *The Quarterly Journal of Economics*, (November), 1039-1061.
- Tversky, Amos and Itamar Simonson (1993), "Context-Dependent Preferences," *Management Science*, 39 (10) (October), 1179-1189.

- Urbany, Joel E., William O. Bearden, Dan C. Weilbaker (1988), "The Effects of Reference Pricing on Consumer Perceptions and Price Search," *Journal of Consumer Research*, 15 (June), 95-110.
- Van der Pligt, Joop, Nanne K. de Vries, Antony S.R. Manstead and Frenk van Harreveld (2000), "The Importance of Being Selective: Weighing the Role of Attribute Importance in Attitudinal Judgment," *Advances in Experimental Social Psychology*, 32, 135-199.
- Wittink, Dick R., Laksham Krishnamurthi and Julia B. Nutter (1982), "Comparing Derived Importance Weights Across Attributes." *Journal of Consumer Research*, 8 (March), 471-474.
- Yi, Youjae (1990), "The Effects of Contextual Priming in Print Advertisements," *Journal of Consumer Research*, 17 (September), 215-222.