Consumer perceptions of extra free product promotions and discounts: The moderating role of perceived performance risk

Ben Lowe*
Kent Business School
University of Kent, UK

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* Correspondence should be addressed to Dr Ben Lowe at: B.Lowe@kent.ac.uk.

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Abstract

Purpose – The purpose of this paper is to examine how perceived performance risk moderates consumers' evaluations of different types of promotions, including extra free product promotions (e.g., buy-one-get-one-free deals or BOGOFs) and price discounts (e.g., 50% off). Some evidence shows that consumers prefer extra free products to discounts because of mental accounting, and the way that these different types of promotions are framed. This research explores a new moderating link in the consumer behavior literature by showing that perceived performance risk, through its effect on a consumer's tendency to stockpile, moderates consumers' evaluations of extra free product promotions and price discounts.

Design/methodology/approach – This research uses a cross-sectional experiment to manipulate perceived performance risk, type of promotion and promotion size, and measures consumers' value perceptions and purchase intentions. The experimental method provides greater internal validity and addresses calls in the literature for more experimental research in pricing and sales promotion studies.

Findings – The results indicate a clear and strong moderating effect for perceived risk on consumer value perceptions and preferences for extra free product promotions and price discounts. Specifically, for products low on performance risk consumers tend to attribute higher value to extra free product promotions than they do to discounts. The reverse occurs for products high on performance risk where consumers attribute higher value perceptions towards price discounts than they do to extra free product promotions. These findings have implications for a variety of different product categories including innovative new products, products with higher absolute promotion levels, and other categories where perceived risk is likely to vary.

Research implications – These findings are consistent with and extend the literature on sales promotions by showing that existing theory holds for products low on performance risk, but that the theory should be extended for products high on performance risk. Therefore, retailers and managers should think carefully about how to frame promotions based on consumer perceived risk. The findings here highlight and present a more complete picture of the implications of different promotional types.

Originality/value – A variety of studies have examined consumer response to the design of a promotional offer (e.g., discount size, absolute versus relative amounts etc.). Yet few studies have compared and examined consumer response to monetary and

nonmonetary promotions. This study is the first study to examine the moderating role of perceived performance risk on consumer perceptions of different promotional frames and contributes by integrating literature in the area of perceived risk with literature in the area of sales promotions to provide a broader theory of consumer response to different promotional deals.

Keywords Extra free product promotions, discounts, perceived performance risk, framing.

Paper type Research paper

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Introduction

Systematic research into promotional effectiveness is important to marketing because sales promotions account for such a large proportion of marketing expenditure (Kotler and Keller, 2009). Examining promotional effectiveness would appear to be even more important in light of recent economic turbulence and the necessity of retailers and managers to attract consumer dollars in an increasingly price competitive and turbulent environment (Gammell and Clout, 2008). Research illustrates how price promotions can be linked to financial performance in the automobile industry and highlights the importance of understanding the effects of price promotions (Pauwels et al., 2004)

While much research has been conducted in regard to framing of semantically equivalent phrases (e.g., see DelVecchio, Krishnan and Smith, 2007), less research has examined how consumers evaluate different kinds of sales promotions such as extra free product promotions (e.g., buy-one-get-one-free deals or BOGOFs) and discounts (i.e., 50% off). Marketing has its own distinctive approach to understanding how consumers respond to price and sales promotions (Skouras, Avlonitis and Indounas, 2005). Using Diamond and Johnson's (1990) conceptualization of promotions as monetary promotions or nonmonetary promotions, this study extends current theory by integrating literature in the area of sales promotions with literature in the area of perceived risk to derive and empirically test new theory about consumer response to economically equivalent promotions for products with low and high performance risk. This study

also responds to calls in the literature. For example, d'Astous and Landreville (2003) state "… there is a need for more research on the factors that impact on consumer reactions toward such promotions" (p. 1747).

Using a cross-sectional consumer experiment this research shows how perceived performance risk moderates consumer preferences for nonmonetary promotions (e.g., extra free product promotions) and monetary promotions (e.g., price discounts). The experiment shows that consumers are more likely to prefer extra free product promotions for products low in performance risk, and this is attributed to existing theories in mental accounting (Thaler, 1985). This lends credence and generalizability to current theory about consumer response to monetary and nonmonetary promotions. However, the experiment also extends existing theory and shows that for products high in performance risk the effect *reverses*, because perceived risk shares a negative relationship with tendency to stockpile implying an important boundary condition. To-date, very little research has examined moderating conditions to consumers' preferences for different kinds of price promotions. Studying the moderating impact of an important and well researched consumer behavior variable such as perceived risk is important because this will have important implications for sales promotion management and consumer decision making in different product categories.

Consumer response to monetary and nonmonetary promotions

Mental accounting and consumer perceptions of monetary and nonmonetary promotions

Sales promotions have often been classified by researchers as monetary or nonmonetary (Chandon, Wansink and Laurent, 2000; Diamond and Johnson, 1990). For example, a price discount (e.g., 50% off) would be a monetary promotion and an extra free product promotion

(e.g., a BOGOF) would be a nonmonetary promotion. One pragmatic implication stemming from these findings is that consumers frame price discounts and extra free product promotions differently because of the commensurability of the units of the promotion with the product's price (e.g., Cotton and Babb, 1978; Diamond and Campbell, 1989; Sinha and Smith, 2000).

Diamond and Campbell (1989), for example, argue that price discounts are in units commensurable with the product's price, yet extra free product promotions are in units less commensurable with the product's price. As such price promotions are framed as "reduced losses" and extra free product promotions are framed as "segregated gains". According to Kahneman and Tversky's (1979) prospect theory, consumers make decisions in regard to a reference point and deviations from the reference point are evaluated as gains or losses. Consumers tend to be loss averse and "losses loom larger than gains" (Kahneman and Tversky, 1979, p. 279). In relation to sales promotions this implies that monetary promotions are more likely to be viewed as reduced losses and nonmonetary promotions are more likely to be viewed as segregated gains, and as such nonmonetary promotions such as a BOGOF will be viewed more favorably than monetary promotions such as a price discount.

However, this preference for extra free products over discounts is unlikely to be a universal condition, and, given that both types of promotions are used extensively in practice, this suggests the influence of a variety of moderating factors which may alter, or even reverse, consumer preferences for discounts and extra free product promotions. For example, Diamond (1992) shows that consumers value extra free product promotions more than equivalent discounts but the pattern seems to reverse when the size of the promotion becomes larger. Though Diamond's (1992) results are exploratory based on the small sample size, presumably the impact of the monetary saving becomes more important as the absolute value of the promotion becomes larger. This is consistent with recent research in the area of psychology which suggests the loss aversion

process is moderated by absolute amounts (Harinck et al., 2007), and is consistent with other sales promotions literature which shows how a product's price level moderates the effectiveness of different kinds of promotions. For example DelVecchio (2005) found that deal prone consumers for low-price products are less sensitive to the relative value of the promotion than consumers who are less deal prone and the effect reverses for high-price products.

Likewise, Chandon, Wansink and Laurent (2000) examine differences in sales promotion effectiveness and conclude that monetary savings are not the only driver of sales promotion effectiveness. Specifically their study showed that monetary promotions are more effective for utilitarian products than for hedonic products. As such, differences in effectiveness between different types of promotions is dependent on product category differences. Furthermore, their research also showed that examining the effectiveness of sales promotions on purely utilitarian terms and economic equivalence is somewhat myopic. Instead, promotions vary in terms of utilitarian *and* hedonic dimensions. For example, monetary promotions such as price discounts are viewed as being high on a utilitarian dimension and low on a hedonic dimension. Extra free products on the other hand are viewed as being high on *both* a utilitarian dimension and a hedonic dimension.

Sinha and Smith (2000) show further moderating effects based upon product category differences and show that the stock-up nature of the category is important in predicting perceptions and preferences of monetary and nonmonetary promotions. More specifically they find that extra free product promotions are valued more highly than price discounts in stock-up categories, and that price discounts are valued more highly than extra free product promotions in nonstock-up categories.

A more general explanation for Diamond's (1992) and Sinha and Smith's (2000) results could be the role of perceived risk. That is, it could be that perceived risk might be a general consumer

behavior variable that can explain consumers' reactions towards monetary and nonmonetary promotions such as discounts and BOGOFs.

The moderating effect of perceived risk

In the marketing literature perceived risk has often been used interchangeably with the concept of uncertainty (Mitchell, 1999). Though the concept of perceived risk is derived from work on uncertainty in other disciplines (Stone and Grønhaug, 1993), and thus includes uncertainty about *positive* and *negative* outcomes, the research presented here is primarily concerned with the risk attributed to non-performance of a product. As such, consistent with Sweeney, Soutar and Johnson (1999, p.81), perceived risk is defined here as "… the subjective expectation of a loss." (Sweeney, Soutar and Johnson, 1999, p. 81). While a number of dimensions to perceived risk have been proposed, the study here focuses on performance risk, which is defined as a loss incurred when the product does not perform as expected (e.g., it doesn't work in the way that it said it would). This research proposes that perceived performance risk shares a link with stockpiling behavior such that higher perceived performance risk is associated with a lower tendency to stockpile. Stockpiling imposes a cost on consumers in regard to carrying additional inventory. This cost is greatly increased with higher interpurchase time (Narasimhan, Neslin and Sen, 1996) and is likely to increase with higher performance risk. Some have speculated on similar relationships before. For instance, Chandon and Wansink (2002) note that stockpiling is likely to decrease with higher perishability risk, thus perceived risk would appear to be a salient issue in a consumer's decision to stockpile. This conceptualization leads us to hypothesize H_1:

H_1: There is a strong negative relationship between perceived performance risk and stockpiling tendency.

If the relationship in H_1 holds, then perceived performance risk should moderate consumer value perceptions and preferences for discounts and extra free product promotions because of the moderating role of stocking up tendency. Consistent with past research which has been conducted on what would otherwise be characterized as low-risk products (e.g., cheese slices, bread, bath tissue, laundry detergent etc.) we would expect consumers to have higher value perceptions and preferences for low-risk product categories. However, for products perceived to be more risky there is a potentially greater cost to stockpiling, and the conventional relationship could reverse.

We conceptualize value perceptions in the same way as Sinha and Smith (2000) and operationalize the concept as transaction value (Thaler, 1985). Other research in the area of price promotions has used transaction value theory to examine the effectiveness of different kinds of promotions (i.e., Boza and Diamond, 1998; Folkes and Wheat, 1995; Lichtenstein, Netemeyer and Burton, 1990). Ultimately, higher transaction value has been shown to lead to higher purchase intentions and the link between transaction value and purchase intention has been empirically validated in several studies (Grewal, Monroe and Krishnan, 1998; Urbany et al., 1997). This leads to H_2 and H_3:

H_2: For products low in performance risk, after a promotion, a) transaction value, and b) purchase intention will be higher with extra free product promotions than when a discount is used.

H_3: For products high in performance risk, after a promotion, a) transaction value, and b) purchase intention will be lower with extra free product promotions than when a discount is used.

Therefore, H_3 predicts that the assertions made in H_2 will reverse based on the perceived performance risk attached to a product. If this is the case then perceived performance risk

moderates consumer perceptions of discounts and BOGOFs and the empirical results should illustrate an interaction effect between performance risk and promotion type. His leads to H_4:

H_4: Performance risk moderates consumer evaluations of promotion type.

Method

The hypotheses were examined using an experiment, simulating a shopping experience where the respondent had to consider purchasing an innovative new product on promotion. A number of different studies have examined consumer promotions and stockpiling behavior, but most of these have involved econometric modeling of aggregated purchase data (e.g., Gupta, 1988; Mela, Jedidi and Bowman, 1998; Steenkamp and Gielens, 2003). While offering a variety of useful insights, such studies are often limited because of indirect measurement of important constructs. Experiments are useful in consumer behavior research because they allow direct measurement of constructs and avoid confounds from respondents' prior experiences, and greater emphasis upon internal validity. For example, in extolling the virtues of experiments, Rajendran and Tellis (1994, p. 31) advocate "Experiments provide rigorous tests of the causes of reference price and are especially useful in developing theory". An experimental study with hypothetical stimuli is therefore considered highly suitable for this study into the moderating influence of perceived performance risk on consumer perceptions of monetary and nonmonetary sales promotions.

Experimental design and procedure

Using a between-subjects design, performance risk (low-risk or high-risk), promotion type (extra free product promotion or a price discount) and promotion size (medium or large) were manipulated. A product concept statement was used to simulate the introduction of a new product

following the method employed in similar literature (e.g., Campbell and Goodstein, 2001; Gurhan-Canli and Batra, 2004). The independent variables were manipulated via the product concept statements forming a 2x2x2 experimental design replicated across two new product categories for generalizability. After exposure to the concept statement, subjects were asked several questions in relation to the dependent variables, manipulation checks and the potential confounds.

The instrument

The products: Two product categories, painkillers and AA batteries, were selected based on a pilot study, and it was found that each product category had a high degree of relevance to the target population, using a measure of personal relevance from Mittal (1995). Two new product concepts were created from these product categories and included a painkiller that lasted 72 hours and AA batteries that lasted fifteen times longer than conventional AA batteries. These product categories also satisfied another important criterion; both were stock-up categories. Controlling for differences in stock-up propensity is important because the stock-up characteristic has been shown to alter consumer evaluations of promotions (Sinha and Smith, 2000).

Performance risk was manipulated as in Gurhan-Canli and Batra (2004) by telling respondents that a recent, independent issue of a consumer choice magazine had stipulated that the high-risk products had a 40% chance of not performing as expected and the low-risk products had the same chance of not performing as expected as other well known brands in the category. As in Kardes et al. (1993), novel brand names were chosen to control for familiarity and prior knowledge. Specifically, the text read "A recent issue of an independent consumer choice magazine tested many of these (batteries/pain killers), and compared them to other well known

brands currently on the market, finding that they had (the same/a 40%) chance of not performing as expected."

Following Monroe (2003), the prices for the innovative products were selected by exposing respondents to the concept statements, and asking respondents their highest acceptable price and their lowest acceptable price (below which they would perceive the product to be of inferior quality). The most acceptable price was calculated by using the median of the highest price minus the lowest price. To avoid price ending effects in the experiment, prices were rounded with consistent endings such that the left digit did not change (Thomas and Morwitz, 2005). The prices used in the experiment ended up being about twice the price of existing products from their respective categories (i.e., painkillers that last around 4 hours and standard AA batteries).

For the monetary promotions, levels of 20% (medium discount) and 50% (large discount) were used. For the nonmonetary promotions this corresponded with extra free products at levels commensurate with the same unit price as the discount levels (e.g., Buy 12 batteries, get 12 batteries free). These levels are largely consistent with discount levels from prior research. For example, DelVecchio, Krishnan and Smith (2007, p. 161) use a 50% discount to represent a large promotion and Gupta and Cooper (1992) show that switching intentions are highest at a discount level of around 50%. A small discount has typically been characterised as 10% in prior research (Chen, Monroe and Lou, 1998; Darke, Chaiken and Freedman, 1995), so 20% was selected here to avoid the discount being perceived as too trivial.

Dependent variables: Measures of transaction value and purchase intention were based on the measures used in similar research (e.g., Lowe and Alpert, 2007; Lowe and Alpert 2010; Urbany et al., 1997). The measures for transaction value were three seven point scales with bipolar adjectives (Low-High, Inexpensive-Expensive, Underpriced-Overpriced) following the statement "Compared to what I expect [brand name] would normally sell for, the advertised price of [brand

name] is…..". The measure for purchase intention included two items. The first item was a Juster scale asking respondents "How willing would you be to buy this product at [price]?", anchored by 0 (No chance I would buy this product) and 10 (Certainly would buy this product). The second item was a rating scale asking respondents "How likely would you be to purchase [brand] at [price]?", anchored by 1 (Very unlikely) and 7 (Very likely). Stocking up tendency was measured using a two-item, 7-point Likert scale based on the one in Sinha and Smith (2000). The first statement was "If the price of [brand] was reduced substantially I would buy quite a bit more than usual and stock up on this product", and the second statement was "If this product was on promotion I would try to stock up on it".

Perceived performance risk was measured using a four item, 7-point Likert scale from Sweeney, Soutar and Johnson (1999), where respondents were asked to respond to the statements "There is a chance that there will be something wrong with this product or that it will not work properly" and "This product is extremely risky in terms of its long term costs".

Manipulation checks: To evaluate internal validity, manipulation checks were used for perceived risk, perceived promotion substantialness and perceived realism of the promotions. Perceived substantialness of the sales promotion was measured using a one-item scale from Chen, Monroe and Lou (1998) asking respondents "For [brand name] how significant was the promotion?" anchored by 1 (Trivial) and 7 (Significant). Perceived realism of the promotions was determined using another measure from Chen, Monroe and Lou (1998), which asked respondents to judge the degree to which they thought the price promotions looked common or unusual anchored by 1 (Common) and 7 (Unusual).

Confounds: To examine likely confounds due to heterogeneity between groups, deal proneness and value consciousness were measured because differences in these variables have been shown to affect consumer response to price promotions (DelVecchio, 2005; Lichtenstein, Netemeyer and

Burton, 1990). Based on the measures used in these articles, deal proneness was measured with a four item, 7-point Likert scale with the following items: "Buying products with pence-off deals makes me feel good", "When I take advantage of a buy-one-get-one-free offer I feel good", "I will sometimes switch brands when I can get something for free when purchasing another brand", and "I like to take advantage of special deals I notice in the store". Deal proneness is "…the psychological propensity to buy … goods on promotion" (DelVecchio, 2005: p. 374) and is specific to promotion type (Lichtenstein, Netemeyer & Burton, 1995). Value consciousness is a separate and distinct construct to deal proneness (Lichtenstein, Netemeyer & Burton, 1990) and was measured using a four item, 7-point Likert scale with the following items: "I am very concerned about low prices, but I am equally concerned about product quality", "When grocery shopping, I compare the prices of different brands to be sure I get the best value for money", "When purchasing a product I always try to maximise the quality I get for the money" and "When I buy products, I like to be sure I am getting my money's worth".

Product category knowledge was also measured as a possible confound. Using the multi-item scales of Cowley and Mitchell (2003), respondents were asked how much knowledge they had about the category and how familiar they were with it, anchored by 1 (not very knowledgeable/familiar) and 7 (very knowledgeable/familiar). Personal relevance was operationalized using five semantic differentials on a 7-point scale, taken from Mittal's (1995) study (Unimportant-Important, Means nothing to me-Means a lot to me, Does not matter to me-Matters to me, Insignificant-Significant, Of no concern to me-Of concern to me). For both product categories all Cronbach's alpha values were above 0.75 and most were above 0.9, indicating good internal consistency for the measures (Nunnally and Bernstein, 1994).

Administration

The instrument was first pilot tested on a small sample of subjects who were interviewed and probed about their understanding of the questions and the task. After some minor modifications the instrument was then pretested on a larger sample of respondents from the target group.

The main experiment was administered at a metropolitan university with subjects studying business and management. Participation was voluntary, but encouraged with incentives. Subjects completed the experiment online and were randomly and evenly exposed to the experimental treatments. For consumer experiments, student samples are often used (e.g., Gurhan-Canli and Batra, 2004; Harinck et al., 2007; Sinha and Smith 2000) because of sample homogeneity (Kardes, 1996). In total 322 subjects took part in the study and this led to around 20 respondents per cell.

Analysis

Manipulation checks and confounds

To assess the possibility of likely confounds, summated measures for deal proneness, value consciousness, personal relevance and product category knowledge were included as dependent variables in a MANOVA, with experimental group as the independent variable. The MANOVA revealed that the means of the possible confounds were roughly equivalent between experimental groups ($p > 0.05$), suggesting that the measured variables were unlikely to have had a confounding influence on responses.

To assess whether or not the manipulations had been successful, perceived performance risk and discount substantialness were examined between treatments. For both product categories mean perceived performance risk was higher for the high-risk condition and lower for the low-

risk condition, and these differences were statistically significant (pain killers: t = -2.853; p = .000; batteries: t = -7.671; p = .000). Also the larger promotions were perceived as more substantial than the smaller promotions, as expected.

The association between perceived performance risk and stockpiling tendency

To examine the degree and strength of the association between perceived performance risk and tendency to stockpile, Pearson's correlation coefficients were calculated. For the painkillers Pearson's correlation coefficient was negative and moderately strong (corr = -.425, p = .000) and for the batteries the association was also negative and moderately strong (corr = -.564, p = .000). In both cases the relationship was negative, moderately strong and statistically significant indicating strong support for H_1.

The moderating impact of perceived performance risk

H_2 and H_3 were examined using a MANCOVA with transaction value and purchase intention as the dependent variables, performance risk, promotion type and promotion size as the independent variables, and deal proneness, value consciousness, product category knowledge and personal relevance as covariates. The assumptions underlying the MANCOVA were largely met with the data for both product categories, and the cell sizes for each experimental group were approximately equal providing robustness to any violation of assumptions (Hair et al., 1998).

For the pain killers the multivariate tests were statistically significant for performance risk and promotion type (product risk: *Wilks' lambda* = 0.341, p = 0.000, power = 1.000; promotion type: *Wilks' lambda* = 0.901, p =0.005, power = 1.000). For the batteries the multivariate tests were also statistically significant for both high-risk and low-risk treatments (product risk: *Wilks' lambda* = 0.652, p = 0.000, power = 1.000; promotion type: *Wilks' lambda* = 0.912, p =0.004,

power = 0.890), suggesting further univariate testing for both product categories. Power was generally high in the experiment and above the level of 0.80 recommended by Cohen (1988), indicating acceptable sample size for the effects to emerge.

Figure 1 and Figure 2 illustrate changes in transaction value and purchase intention by promotion type and performance risk, for the pain killers and batteries respectively. In Figure 1, for the low-risk condition, mean transaction value increases from 3.42 for the discount, to 4.34 for the extra free product promotion. The same pattern is apparent for mean purchase intention in the low risk condition which increases from 5.18 to 6.23. Based on the univariate tests for the pain killers these differences are statistically significant (low-risk TV: F = 12.423, p = 0.000; low-risk PI F = 10.014, p = 0.042), providing strong support for H_{2a} and H_{2b} for the pain killers. H_{3a} and H_{3b} predicted that the effects in H_{2a} and H_{2b} would reverse for the high-risk condition. These results are illustrated in Figure 1. For the high-risk condition mean transaction value decreases from 4.35 for the discount, to 3.54 for the extra free product promotion. The pattern is repeated for mean purchase intention which decreases from 5.50 to 5.02. The univariate tests for the pain killers show these differences are statistically significant (high-risk TV: F = 6.779, p = 0.011; high-risk PI F = 35.340, p = 0.000), providing strong support for H_{3a} and H_{3b}.

If Figure 2 is examined, the same pattern is apparent for the batteries, where, for the low-risk condition mean transaction value increases from 3.81 for the discount, to 4.18 for the extra free product promotion, and mean purchase intention increases from 4.41 to 5.94. For transaction value and purchase intention the difference is statistically significant (low-risk TV: F = 4.359, p = 0.040; low-risk PI F = 28.584, p = 0.000). For the high-risk condition Figure 2 shows mean transaction value decreases from 4.96 for the discount, to 4.28 for the extra free product promotion, and mean purchase intention decreases from 4.74 to 4.31. The differences are statistically significant for transaction value and are statistically significant for purchase intention

at the 10% level (high-risk TV: F = 5.481, p = 0.022; high-risk PI F = 3.324, p = 0.073. Therefore, combining the findings across categories, the data for the batteries largely corresponds with the findings for the pain killers and there is strong support for H_{2a}, H_{2b} and H_{3a}. There is strong support for H_{3b} for the pain killers, but for the batteries, although the change in means is in the right direction, the statistical significance of the difference is more marginal, suggesting moderate support for H_{3b}.

<Take in Figure 1 about here>

<Take in Figure 2 about here>

For these results to emerge, perceived performance risk must moderate consumer value perceptions and purchase intentions for discounts versus extra free products. This can be tested in the MANCOVA by examining the statistical significance of the interaction effect between performance risk and promotion type. For the pain killers and the batteries the interaction effects are statistically significant for transaction value ($PRxPT_{pain\ killers}$: F = 41.749, p = 0.000; $PRxPT_{batteries}$ F = 11.313, p = 0.001) and purchase intention ($PRxPT_{pain\ killers}$: F = 8.073, p = 0.005; $PRxPT_{batteries}$ F = 12.862, p = 0.000), providing strong support for H_4, across both product categories.

Discussion and implications

The results from this research show consumer response to monetary promotions (i.e., discounts), and nonmonetary promotions (i.e., BOGOFs), is moderated by perceived performance risk. Existing literature in the area of price promotions suggests that, everything else equal, extra free product promotions such as BOGOFs will be preferred to discounts apparently because discounts are in the same monetary units as the product's price. As a result discounts are more easily

incorporated into consumers' value perceptions and purchase intentions. According to prospect theory (Kahneman and Tversky, 1979) monetary promotions are evaluated by consumers as reduced losses and nonmonetary promotions are evaluated by consumers as segregated gains. However, monetary and nonmonetary sales promotions such as discounts and BOGOFs are routinely used in practice so other factors might explain their effectiveness. Some research has examined factors that moderate consumer value perceptions and preferences for monetary and nonmonetary promotions (i.e., Diamond, 1992; Sinha and Smith, 2000), but the research presented here shows that perceived risk, a widely researched concept in the marketing literature (Mitchell, 1999; Stone and Grønhaug, 1993), might explain differences in effectiveness between monetary and nonmonetary promotions.

Extending literature in the area of sales promotions, H_1 showed that a consumer's tendency to stockpile is negatively associated with the perceived performance risk of the product. Thus products perceived to have a higher level of performance risk are less likely to be stockpiled. Prior research (Sinha and Smith, 2000) has shown that a stockpiling tendency moderates consumer reactions to BOGOFs and discounts. In light of the relationship between perceived performance risk and a consumer's tendency to stockpile, and integrating prior research, this study showed that consumers evaluate extra free product promotions more favorably than discounts for products perceived to be lower on performance risk. On the other hand, for products perceived to be higher on performance risk, price discounts are evaluated more favorably than extra free product promotions. The results, relating to H_{2a}, H_{2b}, H_{3a} and H_{3b}, were strongly supported for the pain killers, and were largely supported for the batteries, with more marginal support for H_{3b}. The findings from H_4 provided further statistical confirmation of the moderating role of performance risk due to the statistically significant interaction effects across both product categories.

While prior research has made a variety of important contributions to our understanding of consumer reactions towards different types of sales promotions, it has tended to focus on examining specific moderating conditions such as a product's price (Diamond, 1992) and stockpiling tendency (Sinha and Smith, 2000). The main finding here suggests that perceived performance risk might be used to form a more general theory about the factors likely to moderate consumer preferences for monetary and nonmonetary promotions. For example, prior research has shown that innovative new products are seen to be more risky than less innovative new products (Herzenstein, Posavac and Brakus, 2007). If this is the case then we might expect consumers to evaluate BOGOFs more favorably to price discounts for less innovative new products. Likewise, for more innovative products that are perceived to be more risky, we might expect consumers to evaluate price discounts more favorably to BOGOFs.

It is not expected that the exact effects shown here will be replicated in all product categories. This is highly unlikely due to other situational and product category related variables (e.g., one wouldn't generally consider a BOGOF on a new plasma screen television!). In particular, we would expect to see these effects in categories with a low average price level, because absolute amounts may further moderate how extra free promotions and price discounts are evaluated by consumers (DelVecchio, 2005; Harinck et al., 2007). Therefore, the results presented here should be delimited by the specific dimension of risk manipulated in this study; performance risk. Prior research has shown that perceived risk is a multi-faceted construct and can include performance risk, financial risk, social risk, psychological risk and physical risk (Jacoby and Kaplan, 1972). The experimental manipulations here relate to consumers' judgments about performance risk, rather than the other risk dimensions. It could be that there are a number of other interrelated and complex associations between the other risk dimensions and their specific moderating impact requires further study. For instance, it would seem likely that price discounts may reduce

perceived financial risk, which in turn may counter the negative effects from performance risk. However, the degree to which this is the case is unclear and has not been researched in detail. Future research and a greater attention to moderating conditions in this area would therefore benefit our understanding of consumer response to prices and promotions further.

Conclusion

In sum, this study extends a large body of research in the area of sales promotions that evaluates consumer perceptions of semantically equivalent phrases. It does this by examining the moderating influence of perceived risk, an important, widely researched consumer behavior variable. Based on Diamond and Johnson's (1990) classification of sales promotions, the research presented here uses prospect theory (Kahneman and Tversky, 1979) and mental accounting (Thaler, 1985) to distinguish between consumers' responses to different kinds of promotions. Using a controlled experiment the results show that perceived risk moderates consumers' evaluations of discounts and BOGOFs. This provides a more general theory about consumer response to two widely used forms of sales promotions. The results are suggestive of carefully considering the product category's characteristics before designing the promotion. This follows other similar research (Chandon, Wansink and Laurent, 2000), which highlights the importance of understanding fundamental differences between product categories when designing sales promotions.

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Figure 1: Transaction Value and Purchase Intention by Promotion Type and Product Risk (pain killers)

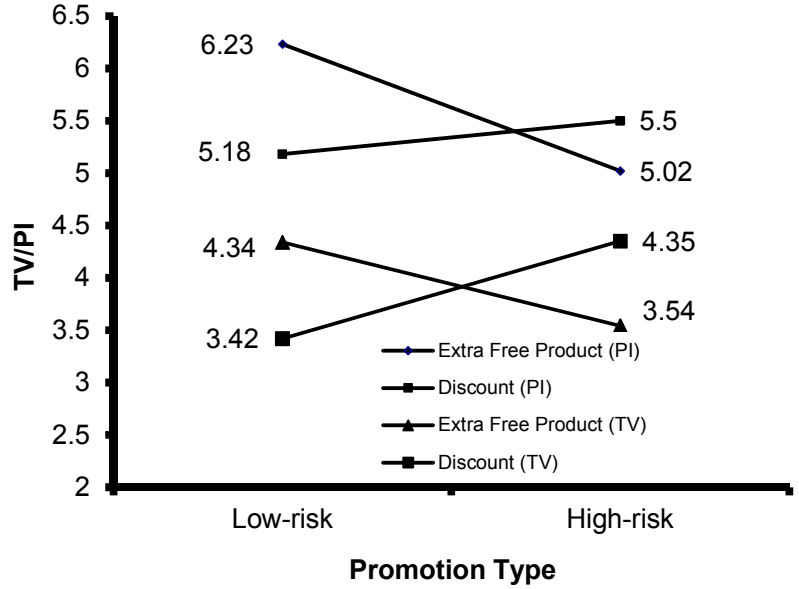

Figure 2: Transaction Value and Purchase Intention by Promotion Type and Product Risk (batteries)