A Review of Theoretical Perspectives Applied to Sales Promotion and a New Perspective based on Mental Accounting Theory

By

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Abstract

The paper reviews theoretical perspective applied to the study of consumer response to promotions. These include adaptation level theory, assimilation contrast theory, attribution theory, prospect theory, transaction utility theory, the elaboration likelihood model and the attitude model. It finds that these theoretical approaches have had a single product focus in evaluating consumer response to promotions. It suggests an alternative theoretical perspective to examine consumer response to promotion from a multi product perspective. This perspective is based on mental accounting theory, a behaviorally based model of choice. It is used to examine the psychological processes involved in creating a positive cross product impact of a promotion (i.e. increase in sale of regular priced products during a promotion).

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The substantial body of literature on promotions is composed of three broad streams of research. The first stream of research is concerned with the empirical estimation of the effects of price promotion on aggregate market outcomes such as sales, market share and brand switching (Appendix 1). This stream of research is largely descriptive and seeks to measure the height of the promotional spike in sales (Gupta, 1988), the promotional price elasticity (Guadgani and Little,1983; Kamakura and Russell, 1989), and the post promotion average repeat purchase rate (Shoemaker & Shoaf, 1977; Dodson et.al, 1978). The second stream of research seeks to identify the promotion sensitive consumer in terms of demographics, psychographics and purchase behavior (Appendix 1). This stream of research characterizes the promotion sensitive consumer in terms of variables such as income, household size, age and gender. The third stream of research examines the psychological impact of promotions on consumer behavior and decision-making. It uses psychological theories and models to explain why consumers respond to promotions.

In the current paper, the theoretical approaches used to study consumers' psychological response to promotions are reviewed. The review indicates that the theoretical approaches have had a single product focus in evaluating consumer response to promotions. The paper proposes an alternative theoretical perspective to evaluate consumer response to promotions from a multi product perspective. This perspective is used to study the psychological processes leading to a positive cross product impact of a promotion (i.e. increase in sale of regular priced products during a promotion).

A Review of Theory and Research Related to Promotions

Most of the theoretical research on promotions has concentrated on aspects of price and its impact on consumer judgments. This is probably due to the fact that the bulk of the research has focused on price promotions. Studies have examined the impact of price promotions on consumers' internal reference price (Lattin and Bucklin, 1989; Kalwani and Yim, 1992) and the impact of comparative price advertising[1] on consumer perception of savings obtained from a price promotion (Berkowitz and Walton, 1980; Urbany, Bearden and Weilbaker, 1988; Bearden, Lictenstein and Teel, 1984). The theoretical approaches, which have been used to study the price-related aspects of a promotion, include adaptation level theory and assimilation contrast theory. Apart from these, other theoretical approaches used to study consumer response to price promotions include attribution theory, transaction utility theory, the attitude model and the elaboration likelihood model. Each of these theoretical approaches is discussed in detail below.

- *Adaptation Level Theory*

This theory proposes that consumers carry with them an adaptation level price or 'internal reference price' for a given product (Monroe, 1979). The internal reference price is represents the price a consumer expects to pay for a product and is formed on the basis of past prices paid/observed either for the same product or similar products. The internal reference price is a standard against which market prices are compared and judged as high, low or medium. The existence of internal reference prices has been confirmed in several laboratory studies (Gurumurthy and Winer, 1995).

Researchers have proposed that consumers respond to a price promotion based on the comparison between the internal reference price and the promotional price (Lattin and Bucklin, 1989; Kalwani and Yim, 1992). Frequent price promotions can lead consumers

[1] A comparative price ad presents the higher regular price of a product along with the lower promotional price in an attempt to document the savings associated with the lower promotional price.

to lower the reference price for the promoted product. Consumers with lowered reference prices will be unwilling to pay the full price of a product once the promotion is over.

Winer (1986) investigated the nature of reference price effects on brand choice through a linear probability model whereby the probability of purchase for a brand was a function of the observed price and the difference between the observed price and reference price. He found that the model predicted probability of purchase better than standard demand models that incorporated only observed brand prices. In another laboratory experiment, Kalwani, Yim, Rinne and Sugita (1990) demonstrated that customer brand choice and judgments were mediated through customers' price expectations for a brand. They showed that consumers' price expectations were formed based on past prices of the brand, customer characteristics and situational factors. The authors found that a brand choice model that included consumers' price expectations predicted choice better than a model which included only observed prices. Mayhew and Winer (1992) examined the relative impact of internal reference price (prices stored in memory) and external reference price (prices provided by stimuli in the purchase environment) on consumer brand choice. They estimated choice models with variables representing the two types of reference prices and found that both types of variables had a significant impact on purchase probabilities.

In a study on the reference effects of price and promotion on consumer choice behavior, Lattin and Bucklin (1989) found that consumers form reference points for both price and promotional activity. These reference points are based on consumer's previous exposure to prices and promotions and affect subsequent patterns of brand choice. The authors stated that too much price discounting would blur the distinction between the promotional price and the regular price of the product thus lowering consumer reference price for the product. Kalwani and Yim (1992) investigated the impact of a brand's price promotion frequency and depth of price discounts on a brand's expected price and brand choice. They demonstrated that both price promotion frequency and depth of price discounts had a significant impact on price expectations. Results of an experiment showed that the larger the amount of a price reduction on a product, the lower the price people expected to pay for it on the next purchase occasion. Similar to Lattin and Bucklin, (1989) the authors found that consumers form both promotion and price expectations. The authors stated that, for a frequently promoted brand, consumers may form price and promotion expectations and will purchase the brand only when it is available at a lower promotional price.

An implied assumption of the price perception theory studies is that consumers notice the prices of all brands when they purchase a product. A number of these studies (Kalwani and Yim, 1992; Mayhew and Winer, 1992; Kalwani, Yim, Rinne and Sugita, 1990) have been carried out in a laboratory setting where consumers have been presented with a series of prices and responses have been elicited from them. In other studies, the internal reference price has not been directly measured but represented through a proxy measure of linearly lagged or exponentially smoothed past prices (Gurumurthy and Winer, 1995). Research done in real-life settings has shown that consumers have a hazy notion of prices of frequently purchased products. Studies in actual shopping contexts have found that shoppers cannot correctly name the price of an item which they have just placed in the shopping cart (Dickson and Sawyer, 1990) and are unable to recall levels of price discounts just after having bought a product (Davis, Inman and Mcalister, 1992).

The internal reference price concept is an extensively researched concept in pricing and promotional literature (Gurumurthy and Winer, 1995). Based on the fact that price promotions reduce consumer reference price for a product, this theoretical approach predicts a negative long-term impact of promotions. However, several studies done at the aggregate market level have found that price promotions have no long-term negative effects. It is important to note that the internal reference price concept is useful in explaining consumer reaction to promotions that lower the price of the product and hence impact reference price. However, non price promotions do not lower the price of a product and do not impact internal reference price (Diamond and Campbell, 1992). As such, this theoretical approach is not useful in explaining consumer reaction to a variety of non price promotions such as extra product offers and free gift offers.

- *Assimilation Contrast Theory*

Assimilation contrast theory examines how external reference prices influence consumers' internal reference price and subsequent promotion evaluations. An external reference price may be introduced through a price advertisement or in-store communication that features both the lower promotional price and the higher regular price and, thus, documents the savings associated with the lower promotional price. As per assimilation contrast theory, an external reference price that is moderately higher than a consumer's internal reference price, is perceived as plausible and assimilated. This assimilation effect results in a shift of the internal reference price toward the higher external reference price and a corresponding increase in favorability of promotion evaluations. However, if the external reference price vastly exceeds the highest expected regular price, it is likely to be perceived as unbelieveable and hence contrasted with internal price standards. Studies based on adaptation level theory have shown that promotional advertisements that include the external reference price produce larger perception of savings than advertisements that include only the lower promotional price (Blair and Landon, 1979; Berkowitz and Walton, 1980; Urbany, Bearden and Weilbaker, 1988; Bearden, Lichtenstein and Teel, 1984). Researchers have found that although very high external reference prices are somewhat discounted, they still manage to raise consumer perceptions about the value of a price promotion (Urbany, Bearden and Weilbaker, 1988).

Blair and Landon (1979) found that promotional advertisements, which included the higher regular price along with the lower promotional price, produced larger perceptions of savings than advertisements that included only the lower promotional price. The authors found that subjects were skeptical of high external reference price claims and typically believed that these price claims were about 25% higher than the true prices. The greater was the percentage difference between the promotional price and the advertised regular price, the less believable was the external reference price.

Berkowitz and Walton (1980) conducted a study to assess the influence of advertised reference prices and store image on consumer perception of savings and willingness to buy. Results of their study showed that the presence of advertised reference prices generated higher perception of savings, perceived worth and willingness to buy. Results of the study also showed a store quality interaction such that higher discount levels produced relatively less positive responses with the discount store.

Della Bitta, Monroe and McGinnis (1981) investigated the effect of presenting different levels of regular price and promotional price on consumer evaluations. They found that higher price discounts provided greater perceptions of value, less intent to search and greater interest in product. Significant differences in evaluation were found between the 10% and 40% discount levels and between the 20% and 50% discounts levels. Advertisements, which presented comparative price information received better evaluations on willingness to purchase. The information format that received the highest ratings was the one that presented the regular price, the lower promotional price and the percentage off. Advertisements that presented the regular price and the dollar amount off were rated significantly higher advertisements that presented regular price and percent off.

Bearden, Lichtenstein and Teel (1984) examined the effect of varying brand labels (e.g. national, private, generic), the presence or absence of coupon and the inclusion of external reference prices on consumer reactions to retail newspaper advertisements. Results showed that more positive attitudes and greater intention to purchase was present for national brands as compared to private label and generic brands irrespective of the price presentation format. No difference was found between advertisements with/without coupons with respect to consumer price perceptions, attitudes towards purchase and intentions to purchase. Inclusion of reference prices led to more positive consumer price perceptions, attitudes towards purchase and intention to purchase.

Urbany, Bearden and Weilbaker (1988) investigated the effect of advertised reference prices on estimates of average market prices, perceived offer value and perceived benefits of search. Results indicated that advertised reference prices positively impacted perceived offer value and the size of the effect increased as the advertised discount increased. Findings suggested that even exaggerated reference prices influenced consumer beliefs about the advertised products and market prices. It appeared that exaggerated reference prices were somewhat discounted but not totally dismissed. The authors found that the perceived benefits of search were enhanced through higher estimates of average market prices and regular market prices.

Gupta and Cooper (1992) found that consumers' perceptions of price discounts were typically lesser than the advertised price discounts i.e. consumers 'discounted price discounts.' The 'discounting of price discounts' was moderated by the discount level such that it increased with increases in the advertised discount. The authors found that consumers did not change their intentions to buy unless the promotional discount was above a threshold level of 15% of purchase price. They also found a discount saturation point located at 40% of the purchase price, above which the effect of discounts on consumer's purchase intention was minimal. The results of the study suggested a S shaped response of consumer response to price discounts.

Grewal and Marmorstein (1996) found that consumer's processing of price information depended on the size of the discount provided. It was seen that consumers increased their processing of information as the discount size increased from the low to moderate. The depth of consumers' processing declined as the size of the price reduction increased further. The authors explained their findings by stating that for low discount sizes, consumers were unlikely to expend the cognitive effort to process additional information as the price promotion was deemed to be of little value. Similarly when the discount size was judged to be acceptably high but plausible, there was again little uncertainty about the perceived value of the offer and consumers were unlikely to be motivated to process additional information in detail. Consumers were expected to process additional information related to a price promotion most elaborately when the discount size was in the moderate range because here the perceived value of the offer was uncertain.

Studies based on assimilation contrast theory have indicated the importance of external reference price in influencing consumer price judgments. Although very high external reference prices are seen to be discounted, the presence of such prices produces larger perception of consumer savings. Although this theoretical approach has been used only in the context of price promotions, it can be extended to the evaluation of non price promotions. For example, in the context of an extra product promotion, it would be useful to evaluate the threshold and saturation quantities of free product that produce consumer perception of savings. A similar evaluation could be done for a premium promotion.

- *Attribution Theory*

Attribution theory describes how consumers explain the causes of events (Mizerski, Golden and Kernan, 1979) Different types of attribution can be distinguished based on the object about which the attribution is being made. Attributions made about self (the 'why-did-I-buy' question) come under self perception theory while attributions made about an object/ brand (the 'why-is-brand-X-on-promotion') come under object perception theory. Each is analyzed in the context of promotions.

Self perception theory: Researchers who have applied self perception theory to price promotions have stated that a purchase in the presence of a strong promotion is expected to lead the consumer to attribute purchase to an external cause (i.e. the promotion) rather than an internal cause (i.e. liking for the product). This will lead to discounting of a favorable brand attitude and repeat purchase probability will diminish. Basically, self perception theory suggests a negative long term effect of price promotions on consumer attitudes and behavior.

Dodson, Tybout and Sternthal (1978) examined different types of price promotions - media distributed coupons, cents off marked packages and on/in-package coupons - and used self perception theory to explain the results. The media distributed coupons had highest economic value and were expected to induce more switching than cents off and package coupons. They hypothesized that since media coupons had high economic value, consumers would attribute their purchase to the presence of the media coupon and this would lead to lower repeat purchase probability. Since cents off deal and package coupon offered lower economic value, purchase here was likely to be attributed to internal factors and this would lead to higher repeat purchase probability. Attribution to internal (liking for the brand) versus external (presence of a promotion) factors would determine the repeat purchase probability for the brand. The results of the study were in accordance with the hypotheses. Media distributed coupons undermined repeat purchasing to the greatest extent followed by cents off deals. Package coupons had the highest repeat purchase rate. Although Dodson et. al (1978) applied self perception theory to interpret the results of their study, the panel data used did not match requirements for causality to infer the conclusions. There are competing explanations for the results found by the authors. The study did not measure brand evaluations directly and it is not evident that consumers really made the attributions suggested by the authors.

An alternative explanation for lower repeat rates after a price promotion was offered by Neslin and Shoemaker (1989). They stated that lower repeat rates could be found after a price promotion even when individual purchase probabilities remain the same before and after a price promotion. This is because a price promotion temporarily attracts a disproportionate number of households who under non-promotion circumstances have a very low probability of buying the brand. Thus after a price promotion, the low purchase probabilities of these ‘new consumers’ brings down the average repurchase rate. The authors stated that consumers have a low level of involvement in everyday shopping situations. In such low involvement situations, consumers are not motivated enough to make the kind of attributions suggested by self-perception theory.

<u>Object perception theory</u>: Researchers who have applied object perception theory to price promotions have stated that the presence of a promotion will lead consumer to attribute lower quality to the brand owing to the fact that it is on promotion. However, attributions of lower quality to the promoted brand are expected to depend on factors such as the consistency (‘Is the brand always on promotion?’) and the distinctiveness of the price promotion (‘Is it the only brand on promotion?’).

Kahn and Louie (1990) investigated the after-effects of in store price promotions on market shares in the face of two contingencies – (i) whether one or many brands were being promoted at the same time and (ii) whether consumers naturally switched among brands or were primarily loyal to the last brand purchased. They suggested that if many brands were on promotion (i.e. the promotional event was not distinctive), the effect of promotions on brand quality would be lower than if only one or two brands were on promotion. They also stated that promotions would not decrease post promotion purchase for switchers who were familiar with a larger array of brands and were less likely to use promotion as a quality cue. On the other hand, loyal consumers were less likely to be familiar with a large array of brands and were more likely to use promotion as a quality cue. Results of the study showed that for last purchase loyal subjects, a promotion's brand share decreased in the post promotion period when it was the only brand being promoted. On the other hand, the promoted brand's share did not decline on post promotion choice occasions when subjects tended to switch among brands or when all national brands were promoted equally.

Davis, Inman and McAlister (1992) directly measured brand evaluations in a field experiment to examine if presence of a price promotion led to an inference of lower quality for the promoted product. They found that evaluations of the brand in the post promotional period were not lower than the pre promotional period. Their results showed that price promotions had a strong influence at the point of choice but no memory of promotion lingered to drive down brand evaluations. Consumers in their study remembered information about promotions very poorly and many consumers could not retrospectively remember the extent of promotional price-cuts. The authors concluded that the impact of promotions on brand evaluations at the individual level did not lead to attributions of lower quality. Like Neslin and Shoemaker (1989), they stated that the non-existent impact of promotions on brand evaluations was due to the consumer's low level of involvement in grocery shopping.

Raghubir and Corfman (1999) examined the conditions in which price promotions affect pre-trial brand evaluations. They theorized that a price promotion would be taken as information on brand quality when it deviated from either the brand's own past behavior (it is inconsistent) or industry norms (it is distinctive). The extent to which a promotion would be informative was expected to be a function of (i) the past promotional pattern of the firm (ii) the consumer's product category expertise and (iii) the extent to which other firms in the industry promoted. Based on three laboratory studies, they found that price promotions affected pre-trial brand evaluations only in some specific cases. Specifically (i) offering a promotion was more likely to lower a brand's evaluation when the brand had not been promoted previously, compared with when it had been frequently promoted (ii) promotions were used as a source of information about the brand to a greater extent when the evaluator was not an expert but had some basic industry knowledge and (iii)promotions were more likely to result in negative evaluations when they were uncommon in an industry.

Although early researchers had suggested that the mere presence of a promotion would lead to perceptions of lower quality (Dodson, Tybout and Sternthal, 1978), results of later studies showed that a promotion's information value is context specific (Raghubir and Corfman, 1999; Kahn and Louie, 1990). In today's purchase environment where most brands promote, it is unlikely that consumers will make negative attributions about a brand just because it is on promotion.

- *Transaction Utility Theory*

The concept of transaction utility was proposed by Thaler (1985) who stated that the total utility derived from a purchase comprised of acquisition utility and transaction utility. Acquisition utility was the expected utility gained from acquiring the product (i.e. benefits of the product) compared to the cost of paying for it (i.e. the price of the product). On the other hand, transaction utility was the difference between the internal reference price and purchase price of the product. It derived from the feeling of psychological pleasure or satisfaction experienced on receiving a good bargain or deal. Buyers were thought to experience satisfaction from the fact that they bought the product at a price less than the regular price. The conceptualization of acquisition and transaction utility was confirmed empirically by Lichtenstein, Netemeyer and Burton (1990) and Grewal and Monroe (1988).

Lichtenstein, Netemeyer and Burton (1990) examined the impact of a coupon on consumer's perceptions of acquisition utility and transaction utility. They found that beyond affecting both acquisition and transaction utility via a lower purchase price, a coupon had greater impact on transaction utility than acquisition utility. This happened because the lower price offered by the coupon was contrasted against the internal reference price (the component unique to transaction utility). Buyers compared the price at which they were getting the product to an internal reference price that led to the associated pleasure with the financial terms of the deal.

Grewal and Monroe (1988) examined the impact of price comparison advertising (where a higher advertised comparison price is compared to a lower advertised selling price) on buyers' perception of acquisition utility, transaction utility and behavioral intentions. They proposed that comparing a lower selling price to a higher advertised reference price (e.g. "Was $ 200, Now $ 150") would enhance buyer's psychological satisfaction or transaction utility obtained from the deal The results of the research indicated that comparing a lower selling price to a higher external reference price enhanced perceived transaction utility which, in turn enhanced buyer's perception of acquisition utility and willingness to buy the promoted product.

- *Prospect Theory*

This theory proposes that people perceive outcomes of a choice as perceived 'losses' and 'gains' relative to a subjective reference point (Kahneman and Tversky, 1984). Researchers who have applied this theory to promotions (Diamond and Sanyal, 1990; Diamond and Campbell, 1990) have stated that consumer's perception of promotion as a 'loss' or 'gain' is a function of the type of the promotion. They proposed that non price promotions such as premium offers which segregate the promotional gain from the purchase price will be viewed as gains. On the other hand, price promotions such as price off, which integrate the promotional gain with the purchase price will be viewed as reduced losses.

Diamond and Campbell (1989) examined the impact of price versus non price promotions on a consumer's reference price. The authors reasoned that price promotions would be integrated with the purchase price of the product and lead to a reduction of internal reference price while non price promotions would be segregated from the purchase price of a product and not lead to a reduction of internal reference price. Results of the study showed that price promotions led to a lower internal reference price while non price promotions did not affect internal reference price.

Diamond and Sanyal (1990) used prospect theory to predict that price promotions would be viewed as reduced losses and chosen less often than non price promotion which would be viewed as gains. However results of their research showed that an almost equal number of subjects chose the non price promotion (a premium offer) as compared to the price promotion (a price discount). The reasoning that price promotions would be viewed as reduced losses and preferred less as compared to non price promotions which would be viewed as gains was not supported by the results of the study. The authors concluded that the desirability of a specific premium could affect evaluation of a promotion as much as the type of promotion.

Prospect theory based prediction that consumers will perceive non-price promotions as 'gains' and price promotions as 'reduced losses' is not based on a precise application of the theory. Contrary predictions can be derived from the theory. It can be argued that consumers will perceive a price promotion as a gain as the price reduction offered reduces the 'loss' experienced by the purchase price.

- *Attitude Model*

Multi attribute models of attitude (Fishbein and Ajzen, 1975) depict the consumer's decision to perform a specific behavior as the logical consequence of beliefs, attitudes and intentions with regard to the behavior. As per this model, a consumer's intention to buy a brand may be based on positive/negative attitudes towards a promotion.

Babakus, Tat and Cunningham (1988) examined the impact of three attitudinal dimensions – price consciousness, time value and satisfaction/pride – on consumers' decision to use coupons. Results of their study showed that there was a positive relationship between coupon usage and consumer price consciousness. There was a significant negative relationship between coupon usage and perceived value of time indicating that the more a consumer valued his or her time, the lesser was the tendency to use coupons. The authors found that coupon usage increased when the consumer perceived higher satisfaction and pride with the use of coupons.

Shimp and Kavas (1984) applied the theory of reasoned action to understand consumer's decision to use coupons. As per the model, behavior towards coupons would be influenced by consumer intentions to use coupons. Consumers' intention to use coupons would be determined by their attitudes and subjective norms. Consumers' attitudes would be formed through their beliefs in the rewards and costs of using coupons while subjective norms would be formed through consumers' perception of whether important others think they should expend the effort to clip, save and use coupons. Results of the study showed that beliefs in the rewards of using coupons had high positive correlation with attitude while inconveniences and encumbrances had weak negative correlation with attitude. The authors found that both attitudes and subjective norms exerted an important influence on intention to use coupons. The results showed a clear link between consumer's intentions to use coupons and their self-reported behavior in actually doing so.

Although attitude models provide important insights into the consumer decision-making process, researchers have found discrepancies between stated attitudes and actual behavior in several studies (Perry and Gillespie, 1976; Keesling and Kaynama, 2003). Studies in different contexts have shown that attitudes are actually poor predictors of behavior. This possibly accounts for the limited application of attitude models to examine consumer response to promotions.

- *Elaboration Likelihood Model*

Inman, McAlister and Hoyer (1990) used the Elaboration Likelihood Model (ELM) to provide a behavioral explanation for the effect of promotional signals and promotional price cuts on consumer brand choice. As per the ELM model, there are a continuum of ways by which choice may be affected as a result of exposure to a stimulus. At one end of the continuum is the central route to persuasion where a consumer actively and cognitively evaluates information central to a particular evaluation. At the other end of the continuum is the peripheral route to persuasion where simple inferences or cues in the persuasion context are given more weight than consideration of actual product attributes.

Inman et. al. (1990) proposed that a consumer traveling the ELM's central route to persuasion would consider the promoted brand's relative price and other information about the promoted brand before making a choice. On the other hand, a consumer traveling the ELM's peripheral route would consider only the promotional signal and react to a promotion. The authors further stated that need for cognition[2] would moderate the route to persuasion such that high need for cognition individuals would be more likely to take the central route to persuasion while low need for cognition individuals would be more likely to take the peripheral route. Inman et. al. (1990) tested the interaction of subjects' need for cognition and their reactions to a posted 'special' price that signaled a promotion but offered no discount at all and a promotional price accompanied by a regular price. They found that low need for cognition individuals needed only promotional signal to increase purchase likelihood while high need for cognition individuals needed the external reference price and regular price to calculate the size of the price cut.

Inman et. al. (1990) explained consumer response to promotion in terms of an individual difference variable, namely need for cognition. However the link between need for cognition and other managerially actionable demographic variables is not known.

[2] High need for cognition individuals are intrinsically motivated to engage in cognitive endeavors and are more likely to process additional information than low need for cognition individuals (Inman, McAlister and Hoyer, 1990)

Moreover, attempts to identify the promotion sensitive consumer in terms of demographic characteristics have not been very successful. Most research has indicated a very modest relationship between demographic/ socioeconomic variables and response to promotion. (Mittal, 1994).

Identification of Limitations

Theoretical approaches used to explain consumer response to promotions e.g. price perception theory, attribution theory have all had certain limitations. These are discussed below.

- The price perception based studies are unable to explain consumer response to a wide range of non-price promotions such as free gift offers and extra product offers. Attribution theory is not useful in explaining consumer response to promotion in an environment where all brands promote on a regular basis. Prospect theory based prediction that consumers will prefer non price promotions perceived as 'gains' to price promotions perceived as 'reduced losses' is not supported by research and is also not based on a precise application of the theory. Although attitude models provide information on the consumer decision process, their application is limited by the fact that several studies have found a weak correlation between attitude and behavior. The ELM model bases the explanation of consumer response to promotion on an individual difference variable (need for cognition). There is little information about the relationship between this variable and other managerially actionable variables e.g. demographics. There is need for a theoretical framework, which is more adequately able to explain consumer response to different types of promotion.

- Most of the theoretical research on promotions has concentrated on aspects of price and its impact on consumer judgments. Studies based on adaptation level theory have focused on examining the impact of lower promotional price on consumer's internal reference price. The concept of transaction utility has been used to assess the psychological pleasure associated with obtaining a price discount. Assimilation contrast theory has been used to examine the optimum size and presentation format of price decreases in promotional advertisements. The focus on price has probably been due to the fact that majority of the promotion research has focused on price promotions namely price offs and coupons. These approaches are limited in that they restrict analysis of factors affecting promotion choice to mainly price.

- Psychological approaches used, so far, to explain consumer response to promotion have had a single product focus. The theoretical approaches used so far – adaptation level theory, transaction utility theory, assimilation contrast theory, attribution theory, attitude models – have all had a single product orientation. These studies have examined the impact of promotions on price perceptions, quality perceptions and savings. Although studies on retail price promotions have suggested positive cross product impact of promotion, psychologically based studies have not systematically examined this aspect of promotional response.

The present paper addresses the above gaps in literature.

- First it examines the psychological processes that lead to a positive cross product impact of promotions. Studies on retail price promotions that have identified a positive cross product impact of promotions have had an empirical focus in terms of description. The current paper seeks to examine the positive cross product impact of promotions from a theoretical (explaining what is happening) rather than empirical focus (describing what is happening). In doing this, the paper also examines the issue of consumer response to promotion from a multi-product perspective.

- Second, the paper proposes an alternate theoretical model - mental accounting theory - for the study of consumer response to promotions. Studies in a range of applied areas such as accounting, finance and marketing have demonstrated the theory's ability to explain and predict actual human decision behavior (Shefrin and Statman 1987; Odean 1998; Prelec and Loewenstein 1998; Thaler 1985, 1999). This theory has been used in marketing to explain attention to the sunk cost effect (Soman and Cheema, 2001), use of credit cards (Soman and Lam, 2002), temporal separation between payment and consumption (Gourville and

Soman, 1998) and price bundling effects (Mazumdar and Jun, 1993). It has not been used, so far, to explain the psychological responses involved in response to sales promotion. In the present paper, the mental accounting theoretical approach is used to examine the psychological processes behind a cross product impact of promotions. Principles from mental accounting theory are used to examine if a promotion creates a psychological feeling of ‘gain’ in a consumer’s mind.

- Third, the paper extends earlier theoretical approaches by using a common theoretical model to explain consumer response to different promotions. The mental accounting theoretical model is used to explain consumer response to promotions that reduce the price of the product (i.e. price promotions) as well as promotions that add value to the product at full price (i.e. non price promotions).

A Introduction to Mental Accounting Theory and Research

Mental accounting theory (Thaler, 1985) is a model of consumer choice, which states that people practice a form of cognitive bookkeeping or 'mental accounting' to keep track of transactions. It is comparable to the financial accounting done by business firms to keep track of money and to keep spending under control. Mental accounting theory proposes that people set up mental accounts to evaluate costs (losses) and benefits (gains) related to a particular transaction. The balance of losses and gains of a transaction are evaluated to determine if the overall transaction is evaluated as positive or negative (Gourville and Soman, 1998; Soman and Gourville, 2001). The concept of mental accounting has spawned considerable research and a number of studies have confirmed that individuals mentally track the costs and benefits of a consumer transaction (Prelec and Loewenstein, 1998; Thaler, 1980, 1985). Research has shown that people assign income, expenses and activities to specific mental accounts (Heath and Soll, 1996; Shefrin and Thaler, 1988) and depreciate the fixed costs of their expenses over time and/or uses (Heath and Fennema, 1996; Okada, 1998).

An important principle of mental accounting theory - grouping and labeling of resources is used to examine the positive cross product impact of a promotion. This principle has been tested empirically and has received substantial support.

The Grouping and Labeling of Resources Principle

This principle of mental accounting demonstrates that people tend to group and label different types of money. Research has shown that consumers mentally group the cost and benefit of a particular monetary transaction. Consumers also label different sources of funds (e.g. regular income flows versus windfalls) and different types of expenses (e.g. food, entertainment and clothing). The grouping and labeling of money serves two purposes – (i) first, it simplifies people's cognitive calculations and (ii) second, it acts as a self-control device by preventing over spending on certain categories of expenses

(Thaler, 1985; Heath and Soll, 1996). Each of these types of grouping and labeling behaviors along with relevant research is discussed below.

- *Grouping and Labeling of Income*

Studies show that people distinguish between wealth in categories such as ‘current spendable income,’ ‘current assets’ and ‘future income’ (Shefrin and Thaler 1988). Within the ‘current spendable income’ category, people distinguish between different sources of income. People show a higher marginal propensity of consumption for money received from sources such as a lottery win or a gift rather than money received through overtime pay or work bonus (O’Curry 1994; Henderson and Peterson 1992; Thaler and Johnson 1990).

People are also seen to treat money from a given income source differently depending on whether the monetary inflow is of an expected or unexpected nature. Studies have found that individuals perceive unexpected monetary inflows as ‘gains’ and have a higher marginal propensity of consumption for them as compared to expected income (Arkes et. al. 1994; Soman and Cheema 2001; Thaler and Johnson 1990). Soman and Cheema (2001) found that people who had received an unexpected income were more likely to forego a sunk cost and pursue alternative courses of action. This effect was found in situations where subjects had received an unexpected windfall through a pay check, rent deposit refund, company earnings or a work bonus. Arkes et. al (1994) found that subjects who had received an unexpected payment betted more in a gambling game than subjects who had received the same amount of expected payment. The tendency to label unexpected monetary inflows as gains is discussed in the context of a price promotion in the next section.

- *Grouping and Labeling of Expenses*

Apart from labeling different types of income, research has found that individuals group and label different types of expenses (Henderson and Petersen 1992; Heath and Soll 1996; Soman and Lam 2001). Studies have shown that consumer group expenses into mental accounts of clothing, food and entertainment. Heath and Soll (1995) found that the tendency to mentally categorize expenses leads consumers to under consume within a mental category. In particular, greater spending in a mental category reduces the likelihood of further spending in that category. This effect is found independent of income and satiation effects. Soman and Lam (2001) found that the more recent the prior expenditure in a mental category, the greater was the tendency to depress future spending within the same category. Henderson and Peterson (1992) found that money saved from one mental category was likely to be spent on the same category. An experiment demonstrated that subjects who had received a cash refund from returning a record album (which they had been gifted but did not want) were more likely to spend the refund to purchase another record album. These findings differ from those predicted by traditional economic theory, which proposes that people always consume an optimal quantity of each good. The tendency to group and label expenses in the context of savings received from a price promotion is discussed in the next section.

Grouping and Labeling of Resources in Context of a Price Promotion

In this section the principle of grouping and labeling of income is applied to a price promotion to examine if the price discount is labeled as a 'gain' in the consumer's mind and increases propensity to spend on regular priced products. The principle of grouping and labeling of expenses is used to examine if the propensity to spend promotional savings is for the same mental category of products as the promoted product or a different mental category of products.

- *Grouping and Labeling of Income in Context of a Price Promotion*

Research has shown that a consumer carries with him a price expectation or internal reference price when he buys a product (e.g. Gurumurthy and Winer 1995). A price promotion offers the consumer a price reduction of 15% to 40% on the purchase price (Gupta and Cooper 1992) thereby offering a price that is temporarily lower than the internal reference price. Studies based on reference price theory have shown that consumers perceive price decreases or prices below internal reference price as gains (Gurumurthy and Winer, 1995).

Mental accounting research has shown that the marginal propensity of consumption of a 'gain' is higher than for expected income (O'Curry 1997; Henderson and Peterson 1992; Soman and Cheema 2001; Thaler and Johnson 1990). Thus, the consumer is expected to have a higher marginal propensity of consumption for the 'gain' obtained as a result of a price promotion than for an equivalent amount of expected income. Based on this, we expect that the consumer will show a higher marginal propensity of consumption for savings received due to a price discount rather than from a 'positive income effect' of equivalent monetary value.

- *Grouping and Labeling of Expenses in Context of a Price Promotion*

Savings from a price promotion may be spent on the same mental category of products as the promoted product (e.g. savings on clothing may be spent on clothing) or on a different mental category of products (e.g. savings on clothing may be spent for an entertainment purchase). Based on consumers' tendency to group and label expenses within a mental account, it is expected that consumers will spend savings from a price promotion on the same mental category of products as the promoted product rather than a different mental category of products. Based on this we expect that a consumer who encounters a price promotion is likely to have a higher propensity to spend for an additional product within the same mental category as the promoted product rather than a different category.

Conclusion

The paper represents a research effort to integrate the mental accounting literature into the promotions field. Prior research in promotions arena has examined the psychological consequences of a promotion in the context of a single product. This paper generalizes the psychological principles of mental accounting to the promotions domain in order to examine the positive cross product impact of promotions. It demonstrates how the principle of grouping and labeling of resources can be used to study the positive cross product impact of a promotion. Based on this principle the paper suggests that a price promotion is likely to be labeled as a gain in the consumer's mind and lead to increased propensity to spend on regular priced products. The paper also suggests that the increased propensity to spend is likely to be for the same mental category of products as the promoted product rather than a different mental category of products.

The grouping and labeling of resources principle can also be used to examine a number of other promotional effects that have been found in aggregate level studies. Specifically, studies have found that promotions lead consumers to stockpile (i.e. buy extra quantity of the product and store for future use) and upgrade to higher quality products (Blattberg, Briesch and Fox, 1995). Based on the grouping and labeling of resources it can be examined if a consumer would use promotional savings to buy extra quantity for the same product. In the context of consumer durables, it can be examined if consumers would use the promotional savings to buy an upgraded version of the product.

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Appendix 1: Review Of Empirical Estimation Of Promotion Effects

Empirical studies in the promotion field have been based on analyses of aggregate data (panel or scanner data). The focus of the studies has been mainly descriptive in terms of documenting the short term promotional spike in sales, the value of the promotional price elasticity (Guadgani and Little 1983; Kamakura and Russell 1989), and the post promotion average repeat purchase rate (Shoemaker and Shoaf 1977; Dodson et.al 1978). Studies have estimated both the short term and the long term impact of promotions. Findings across several studies have shown that promotions lead to substantial increase in sales during the promotional period. However, the long term impact of promotion in terms of category expansion or brand switching behavior is very little.

The Short term Impact of Promotions

Studies oriented to the short term have looked at the impact of promotions on purchase behavior during the promotional period i.e. the week or the month when the promotion was being run. The majority of the empirical studies have focused on the impact of promotions in the short term. The key findings across the studies are discussed below.

<u>Temporary price reductions substantially increase sales</u>

There is ample empirical evidence to show that promotions lead to dramatic increases in sales of promoted brand in the short term. Studies have consistently reported high sales effects and high price elasticities of brands which are on promotion (Blattberg, Briesch and Fox 1995). The economic rationale for the promotional response is clear – temporary price cuts increase the value of the product to the consumer and require immediate action. Studies in the promotion field have attempted to decompose and quantify the sales boost caused by a promotion into sales due to brand switching, primary demand expansion and consumer stockpiling during a promotion.

Promotion leads to brand substitution with the product category

Numerous studies with diary panel data (e.g., Dodson et.al. 1978) and aggregate sales data (Gupta 1988; Kumar and Leone 1987; Bawa and Shoemaker 1987) have shown that price promotions enhance brand substitution within a product category. Gupta (1988) decomposed the sales 'bump' during the promotional period into sales due to brand switching, purchase time acceleration and stockpiling. The analysis for coffee data indicated that more than 84 % of sales increase due to promotion came from brand switching, 14% came from purchase time acceleration and less than 2 % came from stockpiling.

Studies on brand switching have shown that brand switching effects within a category are asymmetric such that promotions on higher quality brands impacts weaker brands disproportionately (Blattberg and Wisniewski 1987; Krishnamuthi and Raj 1991; Walters 1991, Grover and Srinivasan 1992). During a promotion, higher quality brands induce a large number of consumers to switch to them as compared to lower quality brands. One explanation advanced for this finding by researchers is that large share brands have higher brand equity and attract switchers more than low share brands.

Promotion leads to purchase acceleration/stockpiling effects

In response to a promotion, consumers may buy more quantity of the product category or buy at an earlier time than usual (purchase acceleration effect). If consumers buy extra quantity during a promotion or earlier than normal, then they are not in the market to buy products once the promotion is over. Thus purchase acceleration is demonstrated through a lengthening of inter purchase times after a promotion.

One of the first researchers to provide evidence of purchase acceleration was Ward and Davis (1978). Using a regression model, they showed that purchase quantities of orange juice was larger when coupons were used with the purchase. Blattberg, Eppen and Lieberman (1981), found evidence of purchase acceleration both through larger quantities and shorter inter purchase times. Neslin, Henderson and Quelch (1985) found that purchase acceleration was more likely to be exhibited in increased purchase quantity than in shortened inter purchase times. Results showed that consumers mostly made up for the large quantity purchased by waiting longer until purchasing again. Results indicated that heavy users tended to accelerate purchases more than light users. There was negligible difference in the acceleration propensities of high versus low income groups.

Promotion leads to primary demand expansion for a category

While it was traditionally assumed that consumption rates remain fixed during and after a promotion, several recent studies have demonstrated that promotions also have a primary demand expansion effect (Ailawadi and Neslin 1998; Bell, Chiang and Padmanabhan 1999). When a primary demand expansion occurs, promotion induced increase in purchase quantities does not significantly extend the time till the next purchase in the category occurs, thus indicating that there has been an increase in consumption.

Ailawadi and Neslin (1998) found that promotions induced consumers to buy more and consume faster. They found that promotion induced inventory temporarily increased consumption rates within the category. They found that price promotions led consumers to increase consumption to a greater extent for yogurt than for ketchup. Bell, Chiang and Padmanabhan (1999) reported cross category differences in primary demand effects of promotion. They found that categories such as bacon, salted snacks, soft drinks and yogurt exhibited primary demand expansions as a result of promotion while bathroom tissue, coffee, detergent and paper towels exhibited stockpiling only.

Promotions affect sales in complementary and competitive categories

Although early researchers (Moriarty 1985; Walters and MacKenzie 1988) found only minor substitution and complementary effects of promotion, later researchers (Mulhern and Leone 1991; Walter 1991; Mulhern and Padgett 1995) found that promotions increase sales in complementary categories. Mulhern and Leone (1991) found strong cross relationships between products of the promoted product category indicating brand substitution behavior. They found complementary effects of promotion in the form of negative cross price coefficients between price of a brand and the sales of a complementary brand. They stated that retail price promotions work as a form of implicit price bundling whereby the consumer surplus is transferred from the promoted item to non promoted items. Walters (1991) also found that retail price promotions create significant complementary and substitution effects within the store. Mulhern and Padgett (1995) examined the relationship between retail price promotions and regular price purchases based on analyses of individual purchases. They found a significant positive relationship between regular price purchases and promotion purchases. Shoppers visiting the store for the promotion spent more money on regular price merchandise than on promoted merchandise.

The Long term Impact of Promotions

Some studies have attempted to go beyond the weekly and monthly impact of promotions and study the impact over a longer time period e.g. 4-6 months or even a few years after a promotion. Using data from four weeks before and four weeks after a promotion Ehrenberg, Hammond & Goodhardt (1994) tested whether price promotions affected a brand's subsequent sales or brand loyalty. Their study showed that consumer promotions for leading brands of established packaged grocery products had no after-effects on the brand's sales or repeat buying loyalty. The extra sales of a brand while promoted came virtually all from the brand's existing long-term customer base for whom the experience of buying the promoted brand was nothing new. Johnson (1984) analyzed 20 product categories to examine changes in brand loyalty over the period 1975-83. He found there was no decline in sales and market share of promoted brands and they remained market leaders in their categories.

Nijs, Dekimpe, Steenkamp and Hanssens (2001) examined if price promotions increased short run and long run category demand. They studied the category demand effects of price promotions across 560 product categories over a 4 year period. They found that although the short term effects of price promotions is strong, these promotions rarely exhibit long term effects. They noted that category demand was stationary either around a fixed mean or a deterministic trend. Pauwels, Hannsens and Siddharth (2002) examined the long-term effect of promotions on various components of brand sales namely category incidence, brand choice and purchase quantity. They found that each sales component generally lacked a permanent effect and the effect of promotion was short lived. Mela, Jedidi and Bowman (1998) examined if the increase in promotions affected consumers' stockpiling decisions in the long run. They found that the combined short and long-term elasticity of promotions was zero. The stockpiling induced by a promotion was essentially offset by reduced demand in the long term. Thus increased sales were more a result of sales borrowed from the future than increased consumption.

Appendix 2: Characterization of the Deal Prone Consumer

One stream of research attempts to explain coupon redemption in terms of demographic and psychographic variables. Demographics have been the most frequently studied consumer characteristics, forming the principal focus of several studies. This research has been focused on one type of promotional tool namely coupons. This is probably because the coupon redemption process makes it possible to track and profile the coupon redeemer. In case of other types of promotional tools, this profiling is only possible through the use of scanner panel data.

Demographics

Webster (1965) made one of the earliest attempts to identify the 'deal prone' consumer in terms of demographic, socioeconomic and purchasing characteristics. He identified factors such as age of housewife, number of different brands purchased, total number of units purchased and brand loyalty as strong predictors of deal proneness. Deal proneness tended to increase as the age of the housewife increased and the number of brands purchased increased. Deal proneness tended to decrease as the brand loyalty and the number of units purchased increased. As per this study, the deal prone consumer was likely to be an older housewife who purchased fewer units but bought more brands and did not concentrate purchases on any single brand. However the combined effect of the four predictors explained only 15 percent of the total variance in the construct of deal proneness.

Montgomery (1971) identified some other factors that characterized deal prone consumers. Like Webster he found that deal proneness increased with higher brand switching. He also found that household with greater exposure to media and where the housewife could be psycho graphically profiled as 'venturesome' and 'gregarious' had higher deal proneness.

Blattberg, Buesing Peacock and Sen (1978) provided a theoretical basis/proposed a model of household purchasing behavior for the identification of the deal prone consumer. They proposed an inventory cost model that identified key demographic and household resource variables, which would be related to deal proneness. As per the model, a household's purchasing and inventory decisions are treated like those of a firm. The household is assumed to be a producing unit which needs to stock inventory and meet demand and its purchasing decisions are assumed to be based on factors such as transaction costs, holding costs, stock out costs and the cost of the item. Transaction cost is defined as the opportunity cost of the time required to purchase an item once the consumer is actually in a store plus the opportunity cost of travel time required to get to and from the store. Storage cost is defined as the interest on the capital required to maintain a given level of inventory plus the cost of the required space. Stockout cost represents the foregone utility of not consuming the item which is not at stock at the time it is demanded. Observed price per unit is the final component of cost. The authors then relate household demographic characteristics to these cost parameters to identify household that are likely to be deal prone. Income is identified as a household resource variable as households with higher income are more likely to own homes and cars. Home owners (as opposed to apartment dwellers) and car owners are likely to have lower storage costs and transaction costs. Other household variables identified include time-related variables such as the housewife's employment status and the age of the youngest child. It is predicted that household with at least one child below six and a working wife are likely to be less deal prone as they have higher opportunity cost of time. Results suggest that owning a car and home makes a household more deal prone. Owning both a car and a home is likely to lead to the highest probability of being deal prone. The authors also find that a higher percentage of high-income households were deal prone. However when the adjustments were made for car and home ownership, higher income was not associated with higher deal proneness. Results also showed that time related variables such as the age of the youngest child and the housewife's employment status also affected deal proneness. Households with younger children and an employed housewife were less likely to be deal prone.

Narasimhan (1984) proposed a model of utility maximization, which predicted that the intensity of coupon usage would be inversely related to a household's opportunity cost of time. Thus, coupon usage was expected to be lower for households that were more educated, had children under six and in which both husband and wife were employed. Results showed that, as predicted, coupon usage was higher for households with a higher level of education and with no children under 18. On the other hand, coupon usage was lower for households with an employed wife. It was also found that the number of purchases made with coupon first increased and then decreased with household income.

Bawa and Shoemaker (1987) proposed a utility maximization model to identify factors that distinguished coupon prone households from non-coupon prone households. They proposed that coupon prone households differed from non-coupon prone households along demographic dimensions such as presence of children, wife's employment status and education. Also, households with strong brand preferences and strong store loyalty were less likely to be coupon prone. The authors also examined whether coupon prone consumers in one product class tended to be coupon prone buyers for other product classes. Results showed coupon prone households tended to be somewhat younger, larger in size, higher income, better educated and more likely to live in urban areas than non coupon prone households. In addition, these households were less likely to have a working wife and young children present. In terms of purchase behavior, coupon prone households were less brand loyal and less store loyal as compared to non coupon prone households. Consistent with previous research findings, coupon prone households tend to have a higher average income than the non coupon prone group. It was also seen that households were consistently coupon prone across product classes.

Psychographics

Price, Feick and Fedorouch (1988)) examined characteristics of a group of consumers termed as market mavens. Market mavens were identified based on general marketplace expertise and active diffusion characteristics. They tended to have information about different kind of products and places to shop. They also initiated discussions with other consumers and responded to requests for market information. The authors examined the relationship between market mavens and deal proneness expecting market mavens to make extensive use of coupons. They found a positive relationship between the profile of a market maven and his usage of coupons. The market mavens were significant users of coupons and were also more likely to give coupons to others. Qualitative data analysis showed that, for market mavens, using coupons was more than a matter of saving money.

Mittal (1994) proposed a model of consumer redemption of grocery coupons by combining previous findings on consumer demographics, non-demographic consumer characteristics and cost/benefit perceptions. He stated that three layers of mediating variables, each successively closer to coupon attitudes and use, mediated effect of demographics on coupon use behavior. They proposed that demographics caused perceptions about self or general traits (termed as subjective IDVs), which, in turn, caused certain shopping, related traits (domain IDVs) and which cause perception of costs and benefits. As an illustration, income (a demographic variable) leads to a perception of financial wellness (a subjective IDV), which in turn leads to reduced comparison shopping. Reduced comparison shopping (a domain IDV) leads to discounting of potential savings, which in turn leads to a less favorable attitude towards coupon redemption. The authors choose four demographics (income, education, female employment, household size), three subjective individual difference variables (busyness, perceived financial wellness, pride in homemaking), three domain individual difference variables (brand loyalty, store loyalty and comparison shopping) and costs/benefits of using coupons. Results of the analyses supported the causal chain showing that demographics influenced coupon use/attitudes by first influencing subjective IDV, domain IDVs and perceived costs/benefits in that order. The authors found that the layered mediational model explained coupon attitudes/behavior much better than demographics alone. This study offered a comprehensive understanding of psychological processes that mediate between consumers' demographics and marketplace behaviors.

Most of these studies have been atheoretical with three exceptions. Blattberg et al. (1978) and Raju and Hastak (1980) grounded their use of demographics in economic-theoretic models. Mittal explained the causal impact of demographics on deal proneness through the attitude-behavior model. Most studies have found that higher income households have been found to be more deal prone. Another consistent finding has been the negative association between coupon use (or deal proneness) and brand loyalty.