Pergamon

Journal of Retailing 77 (2001) 547–569

Journal of Retailing

The manufacturer-retailer-consumer triad: Differing perceptions regarding price promotions

Page Moreau[a,*], Aradhna Krishna[b], Bari Harlam[c]

[a]*Southern Methodist University, Dallas, TX, USA*
[b]*University of Michigan, Michigan, USA*
[c]*CVS Pharmacy, USA*

Received 18 December 1999; received in revised form 10 January 2001; accepted 24 August 2001

Abstract

The effectiveness of any promotional strategy depends, in part, on how accurately channel members predict consumers' perceptions of their promotional activity. However, empirical research on channel member predictions and their accuracy is virtually nonexistent. In this article we examine manufacturer and retailer beliefs about consumers' (and each others') perceptions of sales promotions and assess the accuracy of these predictions. Our findings indicate that manufacturers and retailers hold similar, but equally inaccurate views of consumers' industry knowledge. When assessing consumers' specific beliefs about different types of promotions, these channel members underestimate consumer knowledge. Their motivational knowledge, however, appears quite accurate –whether predicting consumer or other channel member perceptions of motivations. The similarity of supplier and retailer knowledge bodes well for channel efficiency, yet limitations in their understanding of consumer knowledge about promotions may lead to weakness in channel marketing strategies.

Keywords: Promotions; Consumer knowledge; Prediction accuracy trade deals; Channel efficiency

1. Introduction

When making strategic decisions regarding price promotions, manufacturers and retailers rely on their expectations of consumer reactions to the promotions (Urbany,

* Corresponding author. Tel.: +1-214-768-3180.
E-mail address: pmoreau@mail.cox.smu.edu (P. Moreau).

0022-4359/01/$ – see front matter
PII: S0022-4359(01)00059-8

Dickson & Key, 1990). However, consumer reactions often depend on their beliefs about channel member motives for offering the promotions. Given this inherent interdependence, the effectiveness of channel promotional strategy may depend on how accurately channel members understand consumer perceptions of their promotional activity.

For example, on seeing Heinz ketchup on sale at Kroger's, a consumer may believe that the savings are provided by the manufacturer, potentially creating goodwill for this supplier. Conversely, consumers may believe that Kroger's is providing the savings. This perception may create goodwill for Kroger's, but have little effect on Heinz brand equity. When deciding whether to reinforce or modify their promotional strategy, Kroger's and Heinz may benefit from an accurate understanding of the perceptions held by their consumers.

Similarly, Heinz may believe that consumers think that the price cuts on its brands are offered to encourage the purchase of the Heinz brand. Consumers, however, may actually think that the price cuts are offered to get rid of excess inventory. If consumers make this latter inference, price promotions may not be an optimal strategy for encouraging sales of a popular brand because of the potential for damage to brand equity.

An accurate understanding of consumer inferences related to store brands could also influence the promotional mix strategies employed by retailers and manufacturers. For example, the majority of consumers may believe that national manufacturers produce store brands. If retailers incorrectly believe that consumers think that retailers makes their own store brands, then the retailers may not price or promote their labels effectively, charging a lower price than consumers are willing to pay.

These examples highlight the importance of understanding consumers' perceptions of retailer and manufacturer pricing strategies. These are policies that (Friestad & Wright, 1994) call *persuasion knowledge.* However, empirical research documenting the beliefs that channel members use when developing their own goals and tactics is *virtually nonexistent* (Friestad & Wright, 1994). While some prior empirical research has focused on the content of consumers' persuasion knowledge (Dickson & Sawyer, 1986; Krishna, Currim & Shoemaker, 1991; Raghubir, 1994; Raghubir & Corfman 1994), little work has focused on channel member *predictions* of this knowledge. A frame for these two forms of knowledge is set forth in Fig. 1.

In this article we examine manufacturer and retailer beliefs about consumers' (and each others') perceptions of sales promotions and assess the accuracy of these predictions. Specifically, this research is designed to 1) assess the content of consumer and channel member persuasion knowledge of sales promotions and 2) examine the accuracy of manufacturers' and retailers' predictions of consumers' and each others' persuasion knowledge (see Fig. 2). In this figure, the arrows represent the agents' predictions of targets' persuasion knowledge, with the arrows pointing from the agents toward the targets.

Note that our focus is on the degree of consistency between manufacturer and retailer beliefs about consumer perceptions and consumers' actual perceptions. We do not examine *why* these inconsistencies exist.

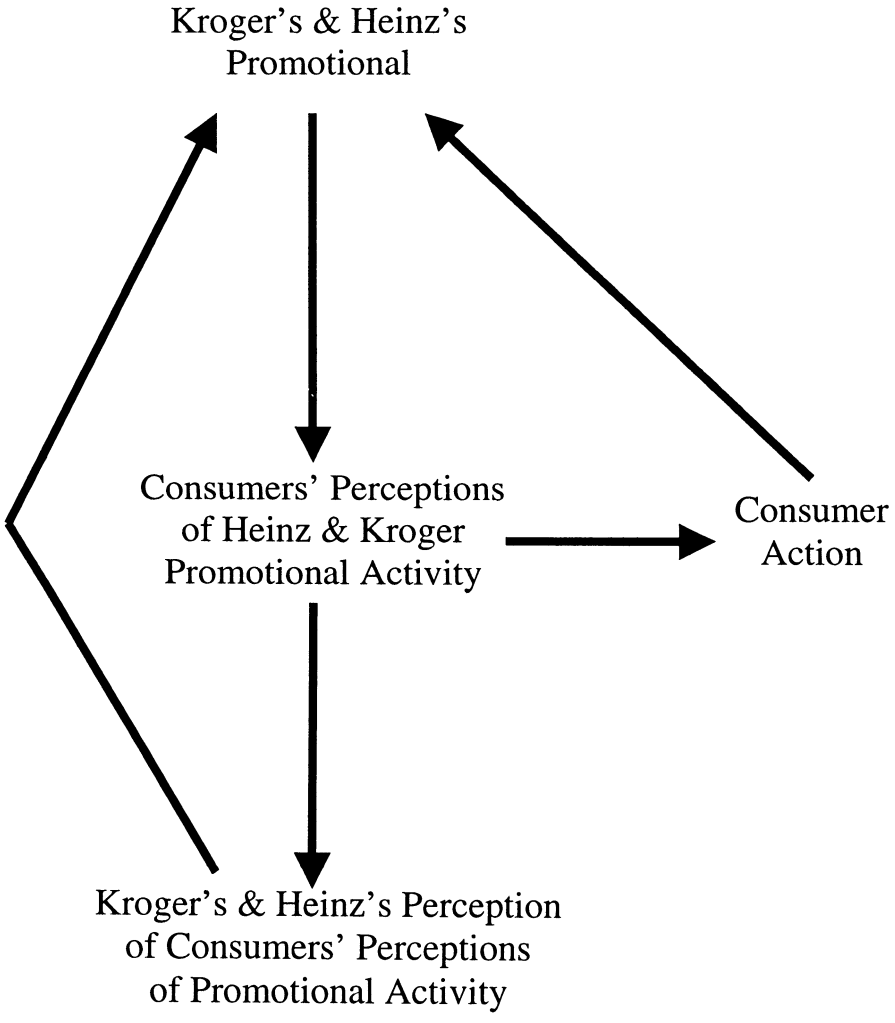

Fig. 1. The importance of understanding consumers' persuasion knowledge.

2. Conceptual framework

We first elaborate on Fig. 2 by discussing relationship scenarios for the Manufacturer-Retailer-Consumer triad. Next, we discuss the types of knowledge that we study.

2.1. Relationship scenarios for the manufacturer-retailer-consumer triad

How do manufacturers and retailers predict consumer interpretations of their own promotional behavior? According to the literature on social prediction, people base their predictions on a number of available cues relevant to the target (Kahneman & Tversky, 1973; Nisbett et al., 1976; Nisbett & Ross, 1980; Taylor, 1982; Tversky & Kahneman, 1974). In

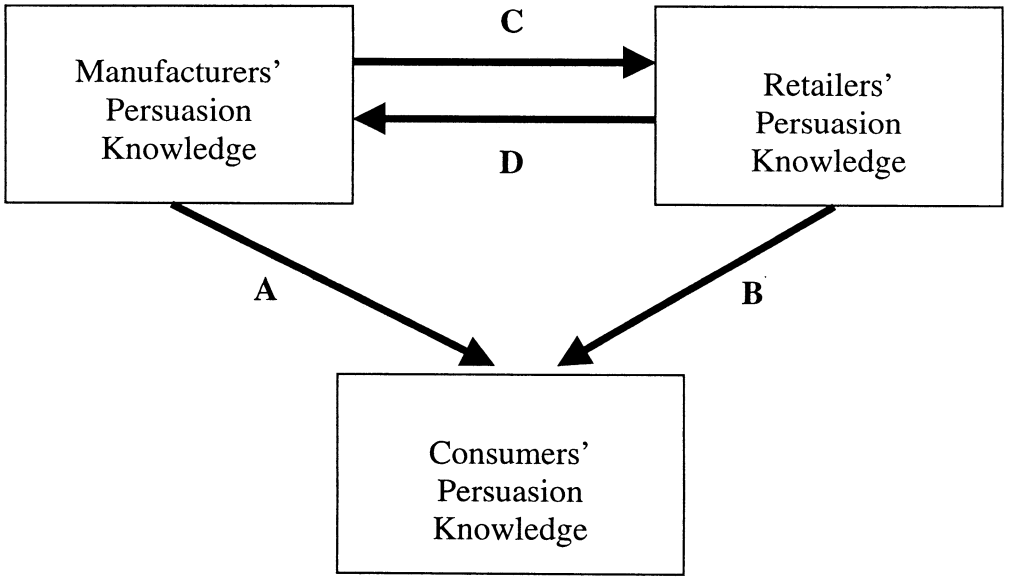

Fig. 2. The manufacturer-retailer-consumer triad.

the context of the marketplace, (Hoch, 1988) suggests that the relevant set of cues for managers consists primarily of the following: 1) their own attitudes and behaviors, 2) their own knowledge about how likely they are to differ from the target, and 3) the available marketing research related to the target population (1988, p.317). Managers' predictive accuracy depends on which cues are chosen and the extent to which they are used (Boulding et al., 1994).

Even when full information is available, a manager's selection and use of these cues are often biased (Bettman, Johnson & Payne, 1991; Hoch, 1988). Because information that is more salient and/or more personally relevant tends to be more available in memory (see Nisbett & Ross, 1980), a common bias is to overly weight one's attitudes, behaviors, or opinions when predicting those of others (Davis, Hoch & Ragsdale, 1986; Ross, Green & House, 1977; Tversky & Kahneman, 1973). (Hoch, 1988) tested for this bias, however, and found that managers were not "projecting" their own positions onto consumers (p.315). Rather, managers' predictive inaccuracy resulted from a "built-in information deficit" regarding the consumer (Hoch, 1988, p.316). To fill this deficit, managers reverted to intuition, and consequently, were no better than novices in terms of predictive accuracy.

If channel members do recognize that they are different from their consumers, other cues are available to help predict consumer persuasion knowledge. These are marketers' knowledge of *how* they differ from their consumers and their access to marketing research. However, manufacturers and retailers differ in their access to these two cues, in part because of their differing levels of direct customer interaction. Consequently, their use of these cues in predicting consumer knowledge may also differ. The consequence is that several plausible sets of beliefs may hold within the manufacturer-retailer-consumer triad. These belief

relationships, and their implications regarding the accuracy of channel member predictions, are presented in the scenarios below.

2.1.1. Manufacturer and retailer predictions of consumer beliefs

The four scenarios below describe possible relationships regarding manufacturers' and retailers' predictions of consumers' beliefs.

2.1.1.1. Relationship scenario I: The channel relationship. Since the retailer interacts with and observes consumers' in-store interactions more frequently and directly than the manufacturer, the Channel Relationship scenario shown in Fig. 3 holds that the retailer would be more accurate in predicting consumer industry knowledge than the manufacturer. Retailers have more direct contact with consumers than manufacturers, and this contact may enable retailers to better understand how they differ from their consumers. Further, retailer experience interacting with and observing consumers may serve as "informal" marketing research. Taken together, these two cues may provide retailers with a better understanding of the target population compared to manufacturers. Thus, we propose the following hypothesis:

H_1: The retailer is more accurate in predicting consumer knowledge than the manufacturer.

2.1.1.2. Relationship scenario II: The market research relationship. Manufacturers, on average, spend more money on formal marketing research reports than do retailers. The market research hypothesis thus suggests that manufacturers may display more accuracy than retailers in predicting consumers' knowledge, especially regarding activities that have a smaller in-store component, for example, coupons and samples. Further, the relatively high spending on marketing research suggests that manufacturers may allocate more attention than retailers to studying and learning about consumers. Based on this scenario, we propose the following, alternative hypothesis:

H_2: The manufacturer is more accurate in predicting consumer knowledge than the retailer.

2.1.1.3. Relationship scenario III: The ivory tower relationship. Because both manufacturers and retailers have access to significantly more industry data than do consumers, both groups may overly rely on this knowledge differential as a cue when predicting consumers' knowledge. Rather than researching consumers' actual knowledge, both manufacturers and retailers may assume that consumers lack the majority of industry knowledge to which they, as professionals, are privy. Thus, the ivory tower view suggests that both manufacturers and retailers will be equally inaccurate in predicting consumers' industrial and motivational knowledge. In this scenario, we hypothesize a third perspective:

H_3: Manufacturers and retailers will be equally inaccurate in predicting consumer knowledge.

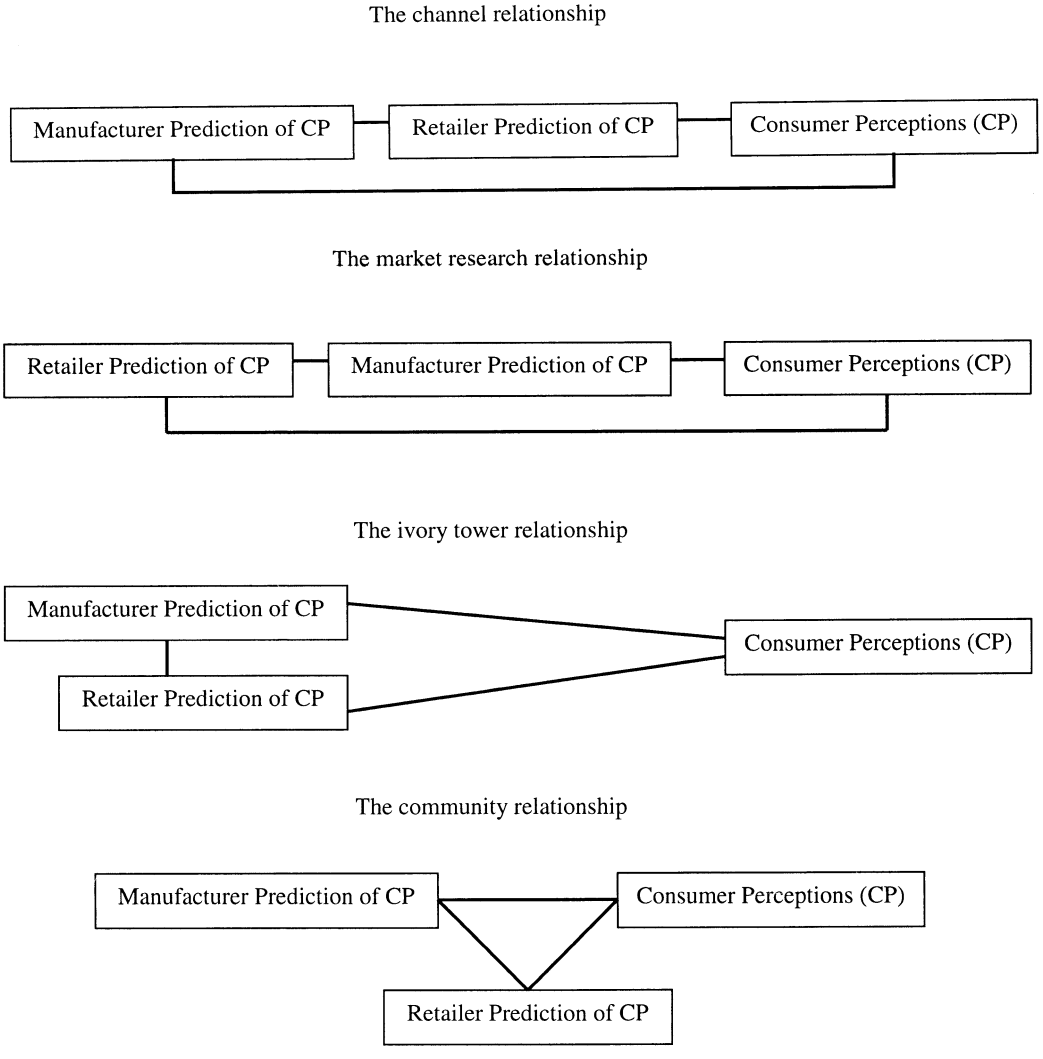

Fig. 3. Predicting perceptions of price promotions: The possible relationship scenarios within the triad.

2.1.1.4. Relationship scenario IV: The community relationship. Finally, we hold that from repeated interactions and access to both formal and informal marketing research, manufacturers and retailers gain a similar understanding of consumers' knowledge. This scenario implies that:

H_4: Manufacturers and retailers will be equally accurate in predicting consumer knowledge.

2.1.2. Manufacturers' and retailers' predictions of each other's beliefs

All of the four relationship scenarios presented above recognize the relative similarity between retailers and manufacturers relative to consumers. As a result, each group is not

Table 1
Manufacturers' and retailers' predictions of consumers' knowledge (H_1-H_4)

	(1) Channel	(2) Market Research	(3) Ivory Tower	(4) Community
CR	=0	>0	>0	=0
CM	>0	=0	>0	=0
CR vs. CM	CR < CM	CR > CM	CR = CM	CR = CM

CR = Difference between consumers' and retailers' responses
CM = Difference between consumers' and manufacturers' responses

likely to experience an "information deficit" (Hoch, 1988) in its evaluations of the other as a target group. Further, the frequent and involved interactions across both groups should cause each to be more fully aware of the areas in which they differ. Thus, when predicting each other's knowledge, manufacturers and retailers should be relatively accurate since they interact directly in the channel relationship, and thus, understand how their roles and motivations differ.

Thus, we expect the following:

H_5: Manufacturers and retailers will be relatively accurate when predicting each other's knowledge.

The comparison of consumers' (C) knowledge to manufacturers' (M) prediction of that knowledge is denoted by "CM," the comparison of consumers' knowledge to retailers' (R) prediction is denoted by "CR," and the comparison between manufacturers' and retailers' predictions is denoted "MR." A summary of the predicted relationships for the scenarios discussed is presented in Table 1.

2.2. Types of knowledge

We consider two types of knowledge, industry knowledge and motivational knowledge. The former consists of facts about the industry, many of which have an objectively right or wrong answer, for example, who funds specific deals. Questions pertaining to industry knowledge allow us to test the accuracy of consumer knowledge and also test retailer/manufacturer perceptions of consumer accuracy. For example, we can compare consumers' knowledge both to reality and to the retailers' (manufacturers') predictions of this knowledge. Further, we can compare manufacturers' and retailers' ability to predict consumer knowledge.

It is important to understand the accuracy of consumers' knowledge in order to gauge whether manufacturers and retailers underestimate or overestimate consumer knowledge. Simply examining whether manufacturers can accurately predict consumer knowledge, without knowing whether this knowledge is accurate, leads to the natural question of whether consumers were accurate in the first place. Thus, the *industry* questions serve as both a baseline for gauging consumers' accuracy in judging reality and also as comparison point for assessing retailers' and manufacturers' predictions of their knowledge.

Motivational knowledge, however, cannot be assessed relative to a published, accurate standard. Rather, it pertains to consumers' perceptions of channel members' underlying motivations (e.g., why are price deals offered?). Here, we test consumers' perceptions against retailers' and manufacturers' beliefs of consumer perceptions, and we contrast manufacturers' predictive ability to that of retailers. We do not compare consumers' beliefs against reality (since there is no exact right or wrong answer). We also examine retailers' and manufacturers' ability to predict each others' knowledge and motivations.

For the purpose of this evaluation, we develop a comprehensive set of questions covering diverse aspects of price promotions. While the study could not address all questions pertaining to promotions, we cover a wide spectrum of key industry-related issues including price deals, coupons, end-aisles, store fliers, and generic and store brands (Blattberg & Wisniewski, 1989; Sethuraman, 1996). The *industry knowledge* questions cover three major categories: the financing of promotions, promotional policy, and beliefs about store/generic brands. The *motivational knowledge* questions cover manufacturer and retailer motivations for offering promotions.

Table 2 highlights the relationships we expect to hold for the different questions. These predictions map on to the relationship scenarios of Fig. 3. Thus, if we expect manufacturers (retailers) to be more accurate than retailers (manufacturers), then we are predicting a Market Research (Channel) relationship. If both retailers and manufacturers are equally inaccurate (accurate), then we predict an Ivory Tower (Community) relationship.

The reasons for these predictions are discussed under the four relationship scenarios. However, in brief, retailers would presumably have a greater chance (than manufacturers) to observe consumers in-store and therefore have a better understanding of consumer perceptions of in-store promotions. On the other hand, certain promotion tools (e.g., coupons and samples) have a smaller in-store component. Also, manufacturers conduct a lot of market research for these tools giving them an edge over retailers.

3. The surveys

Three separate surveys were conducted to gather the requisite data for this study. We constructed three parallel surveys and distributed them to consumers, retailers, and manufacturers nationwide. To assess consumers' industrial and motivational knowledge, we asked consumers questions about industry practices and about retailers' and manufacturers' motivations for offering promotions.

To test H_1-H_4, we asked both manufacturers and retailers to predict how consumers would respond to the questions in the latter's survey (i.e., links A & B in Fig. 2). Additionally, we asked the manufacturers (retailers) questions about their own and retailers' (manufacturers') motivations for offering trade deals and promotions. This part of the survey enabled a test of H5 by measuring each group's own persuasion knowledge and predictions of the other group's knowledge (i.e., links C & D in Fig. 2).

Table 2
Hypotheses and results for accuracy of manufacturer and retailer predictions of consumers' persuasion knowledge

Consumers' persuasion knowledge	*Hypotheses*: Who will be more accurate in predicting consumers' knowledge?	*Results*: Who is more accurate in predicting consumers' knowledge?
Industry knowledge		
Financing of promotions		
Financing of ads	R-Channel Rel.	Ivory Tower Rel.
Financing of price deals	R-Channel Rel.	Ivory Tower Rel.
Financing of displays	R-Channel Rel.	Ivory Tower Rel.
Financing of coupons	M-MR. Rel.	Community Rel.
Effect of demise of price-deals on prices	R-Channel Rel.	Ivory Tower Rel.
Effect of demise of coupons on prices	M-Mkt. Res. Rel.	Mkt. Res. Rel.
Promotional policy		
Decisions on sale products	R-Channel Rel.	Ivory Tower Rel.
Decision on sale prices	R-Channel Rel.	Ivory Tower Rel.
Whether end-aisles have good price cuts	R-Channel Rel.	Ivory Tower Rel.
Beliefs about loss-leaders	R-Channel Rel.	M, but both M and R are inaccurate
Trial of new products	M-Mkt. Res. Rel.	M and R are inaccurate in different ways
Store and generic brands		
Who makes a store brand?	R-Channel Rel.	Both M and R are inaccurate different ways
Who makes a generic product?	R-Channel Rel.	Both M and R are inaccurate different ways
Motivational knowledge		
Why are in-store-price deals offered?	R-Channel Rel.	Community Rel.

M = Manufacturer; R = Retailer; C = Consumer

3.1. Types of questions

As stated earlier, the surveys contain a comprehensive set of questions on price promotions, specifically in the following areas: 1) industry knowledge and 2) motivational knowledge. The industry knowledge questions cover four major categories: the financing of promotions, promotional policy, store/generic brands, and the relationship between promotional tactics and long-run prices. The motivational knowledge questions cover manufacturer and retailer motivations.

Questions were designed so that manufacturers (M) and retailers (R) were predicting a distribution of answers across consumers:

Example 1: Who do consumers think is responsible for paying to have products advertised in the supermarket fliers? Please fill in the percentage of households that fit in each category so that the total adds up to a 100%.

____% of households think that the manufacturer pays all expenses
____% of households think that the retailer pays all expenses
____% of households think that the manufacturer and retailer share the expenses

Phrasing the questions in this manner versus asking manufacturers and retailers to mark one of the three answers allows for greater richness in response. Manufacturer and retailer predictions would be considered accurate as long as a majority of them predicted the distribution of responses from consumers. For example, assume that in response to the example question above, manufacturers predicted that 60% of consumers think that the manufacturer alone pays, 30% of consumers think that the retailer alone pays, and 10% of consumers believe that the expenses are shared. As long as the first option is the most frequently selected by the consumers and the second is the next most frequently selected, the manufacturers would be considered accurate. Thus, the distribution predicted by the managers needs to match that provided by the consumers to be considered accurate.

3.2. The consumer survey

We used a store-intercept strategy at eleven grocery stores in Rhode Island, New York, New Jersey, Maryland, North Carolina, Georgia, and Texas. We approached consumers during different times of day in order to increase the opportunities to access a variety of consumer types. The consumers were given the option of completing the survey at the store location or completing it and mailing it back to us later in the day. As an incentive, consumers who completed the survey were entered into a lottery for $100. Approximately 500 surveys were handed out, and 148 were completed for a response rate of 30%.

The set of respondents was diverse in terms of household income (less than $25,000 to over $75,000), education level (high school to graduate level), employment status (unemployed, part-time, and full-time workers), and age (18 to 87). Nonrespondents did not differ significantly from respondents on these criteria.[1] Thus, we feel we have a representative sample of consumers.

3.3. The retailer survey

We mailed 135 surveys to retail grocery managers. From the *Progressive Grocer's 1992 Marketing Guidebook*, we selected the retail executives responsible for supermarket advertising, pricing, and marketing policy at 120 different store chains. Forty-one managers returned the survey for a response rate of 30%, typical of response behavior for managers in the retail trade (Anderson & Weitz, 1989).

3.4. The manufacturer survey

To obtain manufacturer information, we surveyed brand managers at consumer products companies that supplied grocery stores. We mailed 125 surveys to brand managers and received 44 fully completed questionnaires. This translates into a response rate of 35%, again quite similar to that obtained in the retailer survey.

4. Results

In this section, we test Hypotheses 1–4 for both the industry and motivational questions. Our goal in testing these competing hypotheses is to assess which of the four provides a more accurate description of the triad. We also test Hypothesis 5 using the motivational knowledge questions.

The tables below present the specific questions, the targets' responses (i.e., their own knowledge), and the agents' predictions of the targets' responses. To assess the accuracy of the agents' predictions, we simply compare the targets' responses with those of the agents. It is important to note that an agent has the opportunity to accurately predict the target's knowledge even if the target's knowledge is inaccurate. For example, if retailers correctly predict that consumers incorrectly believe that all items on end-aisle displays are deeply discounted, the retailer has accurately predicted the consumer's inaccurate industrial knowledge. For the industrial knowledge questions, we then compare consumers' responses to reality.

The significance levels of the differences are noted beneath each of the questions. We performed χ^2 tests for pairs of columns in the tables to determine the accuracy of the agents' predictions. χ^2 tests assess whether the distribution of responses across the two columns are similar.

4.1. Industrial knowledge

4.1.1. Financing of promotions

We asked four questions about who pays (or takes the cut in profit) for different types of promotions. The questions and results are presented in Table 3.

4.1.1.1. Advertising costs. Our results showed that 19% of consumers think that manufacturers alone pay to have products advertised in supermarket fliers, 31% think that retailers alone pay, and 50% of consumers think that manufacturers and retailers share the costs.[2,3] The last two columns in the table contain manufacturers' and retailers' predictions of consumers' responses to the question.

Both manufacturers and retailers predicted that more than 50% of consumers would view retailers as being solely responsible for the advertising costs, yet only 31% of consumers actually reported such a belief. Further, while 50% of consumers believed that manufacturers and retailers shared the advertising expenses, manufacturers and retailers predicted that fewer than 25% of consumers viewed the process as cooperative. χ^2 tests show that manufacturers' and retailers' perceptions of consumer knowledge are significantly different from the consumer responses ($p < .005$ both CM and CR).

Yet, manufacturers' and retailers' perceptions were not significantly different from each other ($p > 0.5$). This pattern of results is consistent with Hypothesis 3, the Ivory Tower relationship (CR>0, CM >0, MR=0). Our data suggests that retailers and manufacturers expect consumers to rely more heavily on simple surface cues (e.g., location –where consumers see the advertising) than on deeper knowledge (e.g., awareness of cooperative advertising) when making attributions about the source of promotional funding. Supermarket

Table 3
Industrial knowledge of consumers

QUESTION	TYPE OF RESPONSE	Consumers' responses	Manufacturers' predictions	Retailers' predictions
Financing of promotions				
a) Who do consumers think have to pay to have products advertised in the supermarket fliers? CM ($p < .001$); CR ($p < .001$); MR ($p > .5$)	Manufacturers	19.6%	24.4%	26.1%
	Retailers	30.8%	53.7%	56.2%
	Share the costs	49.6%	21.9%	17.7%
b) When a product is on sale in the supermarket, who do consumers think pays for the price deal (i.e., who takes the cut in profit?) CM ($p < .001$); CR ($p < .001$); MR ($p > .9$)	Manufacturers	22.3%	30.8%	31.9%
	Retailers	37.2%	47.4%	47.2%
	Share the costs	40.5%	21.8%	20.9%
c) Do consumers think that manufacturers have to pay store owners for displaying their products on the end of the aisle? CM ($p < .001$); CR ($p < .001$); MR ($p > .3$)	No	39.9%	68.8%	73.4%
	Yes	60.1%	31.2%	26.6%
d) Who Do Consumers Think Pays for the Coupons That They Receive at Home? CM ($p > .6$); CR ($p > .6$); MR ($p > .8$)	Manufacturers	77.9%	73.8%	74.4%
	Retailers	14.7%	17.0%	15.4%
	Share the costs	7.4%	9.2%	10.2%
e) If price deals (i.e., store specials) ended, consumers think prices would: CM ($p < .005$); CR ($p < .005$); MR ($p > .5$)	Decrease	14.9%	6.3%	7.1%
	Stay the same	39.2%	21.1%	24.9%
	Increase	45.9%	72.6%	68.0%
f) If coupons were no longer offered, consumers think prices would: CM ($p < .001$); CR ($p < .001$); MR ($p < .001$)	Decrease	23.6%	13.1%	29.3%
	Stay the same	64.2%	60.2%	41.2%
	Increase	12.2%	26.7%	29.5%
Promotional Policy				
g) Who do consumers think decides which products to offer on sale in the supermarket? CM ($p < .001$); CR ($p < .001$); MR ($p > .6$)	Manufacturers	12.2%	15.8%	17.0%
	Retailers	21.6%	66.4%	62.4%
	Both decide	66.2%	17.8%	20.6%
h) Who do consumers think decides on the sale price of a product that is on special in the supermarket? CM ($p < .001$); CR ($p < .001$); MR ($p > .9$)	Manufacturers	15.5%	19.1%	18.6%
	Retailers	31.1%	67.7%	67.3%
	Both decide	53.4%	13.2%	14.1%

Table 3
(Continued)

QUESTION	TYPE OF RESPONSE	Consumers' responses	Manufacturers' predictions	Retailers' predictions
i) A produce on an end-aisle display always has a good price cut. Do consumers agree or disagree?	Agree	30.4%	71.1%	74.7%
CM ($p < .001$); CR ($p < .001$); MR ($p > .4$)				
Disagree		69.6%	28.9%	25.3%
j) Do consumers think that a store ever offers such a good sale on a product that it actually loses money on the product?	No	41.9%	56.0%	67.2%
	Yes	58.1%	44.0%	32.8%
CM ($p < .005$); CR ($p < .02$); MR ($p < .03$)				
k) What is most likely to persuade consumers to try a new product?	Coupon	23.6%	3.1%	14.7%
	Sale	25.7%	9.4%	26.5%
CM ($p < .001$); CR ($p < .03$); MR ($p < .001$)	Sample	49.7%	87.5%	52.9%
	Trial size	1.0%	0.0%	5.9%
Store and Generic Brands				
l) When you see a store brand, who do you think makes it?	Store	14.9%	68.7%	28.6%
	Natl. mfr.	47.9%	9.4%	21.4%
CM ($p < .001$); CR ($p < .001$); MR ($p < .001$)	Another co.	37.2%	21.9%	50.0%
m) When you see a generic product, who do you think makes it?	Store	14.2%	40.6%	15.8%
	Natl. mfr.	30.4%	9.4%	16.3%
CM ($p < .001$); CR ($p < .001$); MR ($p < .001$)	Another co.	55.4%	50.0%	67.9%

advertising is a shared expense (Mohr & Low, 1993), with manufacturers providing funding to subsidize the publication of the supermarket flier when their product is featured.

4.1.1.2. Cost of price deals. Consistent with the pattern of results in Table 3a, Table 3b shows that both manufacturers and retailers also overestimated the proportion of consumers who thought that the retailer alone paid for price deals. Both manufacturers and retailers predicted that 47% of consumers would think that the retailer alone takes the cut in profit for the price deal, while only 37% of consumers actually believed that the retailers were solely responsible. The largest proportion of consumers perceived manufacturers and retailers as sharing the costs, yet both manufacturers and retailers predicted this proportion to be significantly lower. Retailers' and manufacturers' perceptions are significantly different from consumer responses ($p < .001$), but not significantly different from each other ($p > 0.10$), supporting the Ivory Tower Hypothesis.

In practice, manufacturers' trade deals subsidize a significant proportion of retailers' promotional costs. Although numerous studies find that retailers pass through less than 100% of these promotional dollars (see Blattberg et al., 1995), others suggest that retailers often pass through more than 100% of the trade deal (Armstrong, Bass & Rao, 1992). Thus, retailers may also contribute to price promotions in an effort to increase store traffic and store-level sales. By recognizing the cooperation between the two groups, consumers were more accurate in their industrial knowledge in this area than either manufacturers or retailers predicted.

4.1.1.3. End-Aisles. One issue not clearly transparent is that of consumer perceptions of the value of end-of-aisle displays. When asked if they think that manufacturers must pay retailers for these displays, 60% of consumers said "yes." Manufacturers, however, significantly underestimated that proportion (31%), and retailers' predictions were even further off (27%). Since this practice is not witnessed directly by consumers, both manufacturers and retailers may have assumed that consumers were not aware that financial incentives are often required to obtain end-aisle displays. The majority of consumers, however, appear to be familiar with the concept of paying for prominent shelf space. CR and CM are significant ($p < .001$) and MR is not significant ($p > 0.3$). A test against pure guessing by consumers (i.e., 50% probability of answering yes or no) shows a significant difference from the results ($t = 2.46$, $p < .02$).

Again, the majority of the consumers were accurately informed, predicting that manufacturers did have to pay for end-aisle space (Anselmi, 2000). Manufacturers and retailers significantly underestimated consumer knowledge in this area.

4.1.1.4. Cost of coupons. Unlike the previous findings in Table 3, Table 3 days indicates that manufacturers and retailers accurately predicted consumers' beliefs about the financing of coupons (none of the chi-squares are significant, all p's > 0.10). Apparently, manufacturers and retailers know that consumers recognize that coupons can be used at any participating supermarket. Consequently, it may be transparent that the manufacturer is solely responsible for their cost. This presumption is also consistent with reality, where manufacturers are

solely responsible for the cost of the coupons distributed via free-standing inserts (Levin, 1991). The results are consistent with the Community hypothesis where CR,CM,MR=0.

4.1.1.5. Relationship between price deals and long-run price. We asked consumers to assess the impact of prices if price deals were to end. Manufacturers and retailers predicted that the majority of consumers (73% and 68%, respectively) would believe that prices would rise. However, only 46% of consumers actually expected price increases. About an equal percentage of consumers (39%) felt that prices would remain the same.

In theory, stores that eliminate price deals and adhere to an EDLP strategy may incur lower costs and may be better able to offer consistently lower prices (Hoch, Drèze & Purk, 1995). Manufacturers and retailers appear to assume that consumers overlook the hidden costs associated with price deals (i.e., advertising, labeling, display), yet our results suggest that many consumers may take them into consideration (CR, $p < .001$, CM, $p < .001$, MR, $p > 0.5$). Even if consumers do not consciously recognize the hidden costs of promotions, their familiarity with the EDLP format may provide substantial evidence that low prices can exist in the absence of promotions. Once again, the Ivory Tower relationship is supported, and consumers are closer to reality than expected.

4.1.1.6. Relationship between coupons and long-run prices. For coupons, most consumers (64%) stated that prices would remain the same if coupons ended and manufacturers were relatively accurate in predicting that 60% of consumers would make that assessment (CM, $p > .10$). Retailers, however, predicted that only 41% of consumers would expect stable prices (CR, $p < .001$), and retailers' predictions were significantly different from those of manufacturers (MR, $p < .001$), supporting the Market Research hypothesis.

For the questions on *Financing of promotions,* we had hypothesized either the Channel hypothesis (for 4 questions) or the Market Research hypothesis to hold. However, the results from this category of questions (*Financing of promotions*) were more consistent with the Ivory Tower Hypothesis (where CR, CM >0, MR=0). Four of the six questions indicate this relationship and for all four, manufacturers and retailers underestimate consumer knowledge.

4.1.2. Promotional policy

We asked four questions pertaining to consumers' knowledge of promotional policy making (see Table 3).

4.1.2.1. Which products to offer on sale. Consistent with their perceptions of in-store promotional financing, the majority of consumers (66%) perceived that both manufacturers and retailers are involved in deciding which products to offer on sale in the supermarket. Both manufacturers and retailers, again, significantly overestimated the percentage of consumers who believed that the retailer had sole discretion over this decision (CR, $p < .001$; CM, $p < .001$; MR, $p > 0.6$).

In practice, the decision-making process can be described as "generally cooperative" (Robinson, 1996). With the increasing emphasis on category management, manufacturers work together with retail category managers to decide which products would be mutually

beneficial to promote (Anselmi, 2000). In this context, consumers' industry knowledge was again better developed than either the manufacturers or retailers predicted.

4.1.2.2. Who decides on sale prices. Consistent with the previous results, the majority of consumers (53%) also believe that manufacturers and retailers both decide on the sale price of a product. Manufacturers and retailers, however, predicted that fewer than 15% of consumers view the process as cooperative and that the majority (67%) of consumers would identify retailers as having sole responsibility for the pricing decision (CR, $p < .001$, CM, $p < .001$, MR, $p > 0.9$). In practice, the sale price that the retailer offers to the consumer is often heavily influenced by trade promotions (Bloom, Gundlach & Cannon, 2000). Consumers, again, have a better understanding of industry practices than either manufacturers or retailers anticipated.

4.1.2.3. End-Aisle price cut. Consumers were more suspicious of end-aisle displays than channel members expected. While only 30% of consumers agreed that a product on an end-aisle display has a good price cut, both manufacturers and retailers predicted that figure to be 70% (CR, $p < .001$; CM, $p < .001$; MR, $p > 0.4$). A test against pure guessing by consumers shows a significant difference from chance ($t = 4.77$, $p < .01$).

This finding is supported by previous research which shows that some consumers are less likely to assume that a special display is merely a signal for a price cut (Inman, McAlister & Hoyer, 1990). Nevertheless, empirical data continues to show that end-aisle displays stimulate sales. Therefore, either the 30% of consumers that assumed that end-aisles have good price cuts are responsible for the increase in sales, or the end-aisles increase awareness and thus impulse purchasing of the product.

4.1.2.4. Loss-leaders. Consumer awareness of the loss-leader concept also appears to be higher than both manufacturers and retailers predicted. Fifty-eight percentage of consumers indicated that a store would intentionally lose money on an item, yet retailers predicted that only 33% would expect such a loss (CR, $p < .005$). Manufacturers were slightly more accurate, predicting that 44% of consumers were aware of the loss-leader concept (CM, $p < .02$; MR, $p < 0.03$). A test against pure guessing by consumers shows a significant difference from chance ($t=1.65$, $p > .05$). In reality, stores sometimes do offer sales where they lose money to attract customers (Berkowitz et al., 2000). Consumer knowledge, again, exceeded manufacturers' and retailers' expectations.

4.1.2.5. Trial of new products. We asked consumers to choose from a list of promotional tools the one that would be most likely to persuade them to try a new product. The largest group of consumers (50%) responded with "sample." Retailers predicted that percentage relatively accurately, expecting 53% of consumers to choose "sample." However, manufacturers predicted that percentage be almost double the actual (88%).

The rest of the consumers are about equally divided between coupons (24%) and sales (26%), with only a few choosing trial sizes (1%). Overall, both retailers and manufacturers are not able to accurately predict the distribution of answers ($p < .05$ for CM=0, CR=0, RM=0). As far as we know, little research has been done to try and understand what

promotional tool is better at generating trial. Our results show that manufacturers' understanding of consumer response could be substantially improved and that this is a rich area for future research.

Consistent with the findings for promotion financing, the results in this category of questions provide support for the Ivory Tower Hypothesis. Consumers tend to view promotional policy as cooperative, whereas both manufacturers and retailers predicted that they would view it primarily as a job of the retailer. Further, consumers appear to understand promotional tactics (i.e., end of aisle displays and loss leaders) to a greater extent than expected by the channel.

4.1.3. Store and generic brands

4.1.3.1. Store brands. While almost 48% of consumers believe that national manufacturers make store brands, retailers predicted that percentage to be only 21%. Manufacturers further underestimated that percentage at nine percent. Further, manufacturers predicted that 69% of consumers would predict that the retailers manufactured the store brand, while retailers predicted that 50% of consumers would believe that another company was responsible for making the store brands. Given that national brand manufacturers make most store brands, this is an unexpected finding.

4.1.3.2. Generic brands. The results for generic brands are similar but not as dramatic (Table 3m –all three p's <0.001). A majority of respondents in all groups believed that another company made generic brands (55%, 68% and 50%, respectively for consumers, retailers and manufacturers). However, whereas 30% of consumers believe that a national manufacturer makes them, manufacturers believe that 41% consumers think that the retailers make them. We find clear differences between perceptions of manufacturers and retailers (MR, $p <$ .001). Similar to store brands, manufacturers and retailers are also equally inaccurate in different ways for generic brands.

4.2. Motivational knowledge

We provided consumers with a list of reasons describing why price deals are offered. We asked them to choose what they perceived to be the most important motivation for offering deals (see Table 4). Table 4 shows that manufacturers and retailers are relatively accurate in predicting the major responses of consumers about managerial motivations. A plurality of respondents in all three groups lists "encouraging own brand" as the primary reason (first choice) for deals. A pair-wise χ^2 tests revealed no significant difference between consumers and retailers for "encouraging own brand sales." The overall results from this comparison provide support for H_4, the community relationship. When it comes to predicting consumers' perceptions regarding their own motivations for offering price deals, both manufacturers and retailers demonstrate a solid understanding of their end-users.

To test Hypothesis 5, we asked manufacturers (retailers) to predict retailer (manufacturer) motivations for offering promotions. In keeping with the format used in the previous section, the targets' responses are presented in the left column and agents' predictions in the right.

Table 4
Motivational knowledge of consumers (managers' motivations)
Question:
Which of the following reasons is the one that best explains why price deals are offered in the grocery store?

Why are price deals offered?	Consumers' responses	Manufacturers' predictions	Retailers' predictions
To get rid of old stock because the new stock is better or improved	3.3%	0.0%	3.6%
The manufacturer made too much product and wants to get rid of it	4.1%	3.1%	0.0%
The store ordered too much product and wants to get rid of it	6.8%	3.1%	7.1%
The brand is not selling, the manufacturer 'has' to cut the price	3.4%	6.2%	0.0%
To get back at competition who is doing the same thing	10.1%	18.8%	21.4%
To encourage you to buy his brand rather than another brand	58.1%	46.9%	57.1%
To encourage you to buy a larger quantity of the product	10.1%	15.6%	10.7%
Other (specify)	4.1%	6.3%	0.0%

CR($p < .001$), CM($p < .001$), RM($p < .001$)

In the first question (Table 5a), both retailers and manufacturers assessed the importance of different factors that motivate *retailers* to offer promotions. The retailers' responses represent their persuasion knowledge as agents and the manufacturers' responses represent their predictions of retailers' persuasion knowledge.

The correspondence between retailer self-reported knowledge and manufacturer predictions of that knowledge is notably high. Retailers believe that a product's ability to increase store traffic is extremely important when selecting brands to promote (average=6.5), and manufacturers appeared to recognize this fact (average=6.2). The other results in Table 5a also indicate a high level of correspondence between manufacturer forecasts of importance and the average importance ratings assigned by retailers. χ^2 tests comparing retailer responses and manufacturer predictions are not significant ($p > 0.8$).

Retailers' ability to predict manufacturers' motivations for offering trade deals also appears to be quite strong (Table 5b). Ninety-three percent of retailers indicated that manufacturers were highly motivated to get retailers to sell more product; 97% of manufacturers confirmed that as their primary motivation. Similarly, approximately 72% of both retailers and manufacturers indicated that gaining and/or maintaining distribution was another of the manufacturer's motivations. In fact, the only manufacturer motivation that retailers did not fully predict was *loading* the retailer with inventory. While 56% of manufacturers believed that loading the retailer with inventory was a primary objective of a trade deal, only 21% of retailers recognized this as an objective. The overall χ^2 (MR) is significant ($p < .05$), but appears to be driven by this one difference. In fact, pair-wise *t* tests show this to be the case –all reasons other than *inventory loading* are not significantly different.

Together, these findings support $H_{5,}$ suggesting that the frequent interactions between manufacturers and retailers closed most potential information deficits, allowing both groups to accurately predict the others' persuasion knowledge. We note, however, that this conclusion is based on the results from a single question that may have been an area of focus (and hence easier to answer) for retailers and manufacturers.

Table 5a
Manufacturers' predictions of retailer motivations
Question:
Retailers use a number of different methods to select products to promote each week. Please indicate how important you think each of the following factors is when they select products to promote. (On a scale with 1 = "extremely unimportant" to 7 = "extremely important")

Factors impacting the selection of product for promotion:	Retailers' Responses	Manufacturers' Predictions
Does the product increase store traffic?	6.5	6.2
Does the product increase sales of other products?	5.5	6.0
What is the amount of the trade allowance?	4.9	5.1
When was the product's last promotion?	4.0	3.8
Is the competition promoting and can we match their price?	4.7	4.7

RM ($p > .8$)

5. Discussion

5.1. Main findings

Overall, our results show that retailers and manufacturers may hold similar but inaccurate views of consumers' industrial knowledge. Across all categories of industrial questions, where we have some notion of an accurate answer, we find that manufacturers and retailers consistently underestimate the level of consumer knowledge. Specifically, for consumer attributions about the financing of and source of promotions, channel members overestimate consumers' reliance upon simple, causal attribution cues such as the location of the promotion. For knowledge of store and generic brands, manufacturers and retailers were inaccurate in predicting consumers' beliefs, perhaps reflecting how they would have liked consumers to respond. Consumers also viewed promotions as more of a cooperative practice than either the retailers or manufacturers expected. Taken together, our results reflecting consumer indus-

Table 5b
Retailers' predictions of manufacturers' motivations
Question:
What do you think are the manufacturers' primary motivations in offering trade deals? (Check as many as apply). The percentages reported reflect the percentage of respondents checking the objective.

	Manufacturers' responses	Retailers' predictions
Getting retailers to sell more product	96.9%	92.9%
Loading the retailer with inventory	56.3%	21.4%
Gaining/maintaining distribution	71.9%	71.4%
Obtaining a price reduction	71.9%	64.3%
Developing retailer "goodwill"	43.8%	32.1%

MR ($p < .005$)

trial knowledge support an Ivory Tower relationship for channel members and their customers.

Conversely, manufacturers and retailers were accurate in their assessments of what consumers think motivates the channel members to offer deals. Further, retailers' (manufacturers') predictions of manufacturers' (retailers') motivations for offering deals were also on the mark. This finding suggests that information may flow efficiently between the groups and indicates a close interdependency. Thus, in the area of motivational knowledge, we find more support for a Community relationship.

Across all questions, there was little support for either the Channel or the Market Research hypotheses. The information flow between the two groups of professionals appears to be sufficiently open, and consequently, neither manufacturers nor retailers had a consistent differential advantage in predicting the beliefs of the consumer as the channel and market research hypotheses suggest.

5.2. Managerial implications

It may appear surprising that manufacturers and retailers underestimate consumers' industrial knowledge so sharply. Since food channels have been operating in much the same mode for many years, we suspect that there are no mechanisms within the system to correct these misperceptions. For instance, in the three examples presented in the introduction (who pays for the Heinz ketchup; why are deals on Heinz ketchup offered; who makes store brands), there is no self-correcting feedback mechanism.

Specifically, in the financing of promotions, our findings show manufacturers and retailers underestimate consumer understanding that this cost is generally shared between manufacturers and retailers. In combination with our prior results on motivation for deals, this inaccurate prediction could imply underestimated goodwill for manufacturers and overestimated goodwill for retailers (if perceived promotions from manufacturers/retailers create goodwill for manufacturers/retailers). What then is the impact of goodwill on consumers' purchase behavior? An interesting area for future research would be to examine whether consumers' attributions of the source of the promotion had an influence on their demand elasticities for identical products.

Taking the case of store and generic brands, we find that while almost half of consumers believe that national manufacturers make store brands, manufacturers predicted that fewer than ten percent of consumers would make that attribution. Clearly, the manufacturers would prefer that consumers not attribute the production of lower-priced products to their premium operations. Retailers are also inaccurate in their predictions of consumers' perceptions in this area. While only fifteen percent of consumers believe that the retailer is responsible for producing store brands, retailers predicted that percentage to be almost twice as high.

Both of these findings suggest that retailers and manufacturers may not be optimizing their marketing mix decisions relative to store and generic brands. Specifically, retailers may be shortchanging their store brands (e.g., competing with lower priced brands instead of with higher priced brands), and national manufacturers (who are the primary manufacturers of store brands) may not be charging retailers enough for them. To more definitely assess the implications of these inaccurate predictions on channel efficiency, we need to examine how

consumers' knowledge of the manufacturing source of the store/generic brand influences both their quality assessments of the product and their willingness to pay for it. With this information, retailers could better determine whether they should reveal the manufacturing source of their products, and manufacturers could determine whether they should allow such information to be disclosed. This research would also be able to determine whether the entire supply chain is pricing efficiently: both manufacturers to retailers and retailers to consumers.

An alternative argument, of course, is that the poor estimates about consumer industrial information indicate that accurate data are not of much value to commercial channel members. Thus, commercial members of the channel simply do not think certain information is valuable enough to collect from consumers (even at low cost). However, we feel that their vision may be biased.

5.3. Theoretical implications

For the supply chain to function efficiently, channels researchers have consistently argued in favor of symmetric interdependence in the relationships among channel members (Emerson, 1962; Kumar, Scheer & Steenkamp, 1995). When conditions of asymmetric information arise, interfirm conflict increases while trust and commitment decline. To combat such problems, researchers recommend an alignment of incentives between the manufacturer and the retailer in cases where asymmetric information is inevitable (Chu & Desai, 1999; Desiraju & Moorthy, 1997).

Our research suggests, however, that neither the manufacturer not the retailer possesses an asymmetric advantage based on their ability to predict consumers' industrial knowledge. As described above, more research is needed to determine whether improving their predictive ability would create an area of differential advantage, and if so, whether the advantage would be greater for either the manufacturer or the retailer.

5.4. Future research and limitations

Our paper sheds some light on manufacturers' and retailers' beliefs about consumers' (and each others') perceptions of sales promotion, and the accuracy of these predictions. Note that our focus is on the degree of consistency between manufacturer and retailer beliefs about consumer perceptions and consumers' actual perceptions. We do not examine why these inconsistencies exist. This is an area for future research. Also, while we offer some conjectures for the implications of our empirical findings, future research needs to corroborate or reject these conjectures.

Notes

1. A comparison of the observable demographic characteristics (i.e., gender and age) of our respondents to the observed distribution of total recipients revealed no significant differences between the two groups. We also found the distribution of respondents' unobservable demographic characteristics (i.e., income and education) to be similar to that of the communities surveyed.

2. While the format of the questions in the consumer survey could have created a context effect (by drawing attention to the possibility of joint and cooperative systems between manufacturers and retailers), the responding manufactures and retailers were aware of this format and continued to underestimate consumers' industry knowledge.
3. Note that the question did not distinguish between advertising for store versus nonstore brands

Acknowledgments

We would like to thank Don Lehmann, Roger Kerin, Michel Pham, the three anonymous reviewers, and the editor, L. P. Bucklin, for their comments and suggestions on earlier drafts. We also thank Ed Fox, Executive Director, and Rosanne Byrnes, Managing Director of the J.C. Penney Center for Retail Excellence at the Cox School of Business, SMU for their assistance. Please direct all correspondence to Page Moreau, Cox School of Business, Southern Methodist University, 6212 Bishop Blvd., Dallas, TX 75275. Phone: (214) 768-3180. E-mail: pmoreau@mail.cox.smu.edu

References

Anderson, Erin, & Barton Weitz (1989). "Determinants of continuity in conventional industrial channel dyads," *Marketing Science,* 8, 4, 310–323.

Anselmi, K. (2000). "A brand's advertising and promotion allocation strategy: The role of the manufacturer's relationship with distributors as moderated by relative market share," *Journal of Business Research,* 48, 2, 113–122.

Armstrong, M., Bass, F. M., & Rao, R. C. (1992). "The normative impact of trade promotions on forward buying and retail promotion," working paper, Washington University, St. Louis.

Berkowitz, E. N., Kerin, R. A., Hartley, S. W., & Rudelius, W. (2000). Marketing, New York, NY: Irwin McGraw Hill.

Bettman, J. R., Johnson, E. J., & Payne, J. W. (1991). "Consumer decision making," In: *Handbook of consumer behavior,* T.S. Robertson and H.H. Kassarjian (eds.) Englewood Cliffs, NJ: Prentice-Hall, 50–84.

Blattberg, R. C., Briesch, R., & Fox, E. J. (1995). "How promotions work," *Marketing Science,* 14, 3 (part 2), G122–G132.

Blattberg, R. C., & Wisniewski, K. J. (1989). "Price induced patterns of competition," Marketing science, 8, 4, 291–309.

Bloom, P. N., Gundlach, G. T., & Cannon, J. P. (2000). "Slotting allowances and fees: Schools of thought and the views of practicing managers," *Journal of Marketing,* 64,2, 92–108.

Boulding, W., Moore, M., Staelin, R., Corfman, K., Dickson, P., Fitzsimmons, G., Gupta, S., Lehmann, D., Mitchell, D., Urbany, J., & Weitz, B. (1994). "Understanding managers' strategic decision-making process," *Marketing Letters,* 5, 4, 413–426.

Chu, Wujin, & Desai, P. (1999). "Channel coordination mechanisms for customer satisfaction," *Marketing Science,* 14, 4, 343–359.

Davis, H. L., Hoch, S. J., & Easton Ragsdale, E. K. (1986). "An anchoring and adjustment model of spousal predictions," *Journal of Consumer Research,* 13, 1, 25–37.

Desiraju, Ramarao, & Moorthy. S. (1997). "Managing a distribution channel under asymmetric information with performance requirements," *Management Science,* 43, 12, 1628–1645.

Dickson, P. R., & Sawyer, A. G. (1986). "Point of purchase behavior and price perceptions of supermarket shoppers," *Marketing Science Institute*, Report No. 86–102.

Emerson, R. M. (1962). "power-dependence relations," *American Sociological Review*, 27, 2, 31–40.

Friestad, Marian, & Wright, P. (1994). "The persuasion knowledge model: How people cope with persuasion attempts," *Journal of Consumer Research*, 21, 1, 1–31.

Hoch, S. J. (1988). "Who do we know: predicting the interests and opinions of the American consumer," *Journal of Consumer Research*, 15, 3, 315–324.

Hoch, S. J., Drèze, X., & Purk, M. (1994). "EDLP, hi-lo, and margin arithmetic," *Journal of Marketing*, 58, 4, 16–27.

Inman, Jeffrey, McAlister, L., & Hoyer, W. (1990). "Promotional signal: Proxy for a price cut?" *Journal of Consumer Research*, 17, 1, 74–81.

Kahneman, Daniel, & Tversky, A. (1973). "On the psychology of prediction," Psychological review 80, 1, 237–251.

Kirmani, Amna, & Rao, A. R. (2000). "No pain, no gain: A critical review of the literature on signaling unobservable product quality," *Journal of Marketing*, 64, 2, 66–79.

Krishna, Aradhna, Currim, I. S., & Shoemaker, R. W. (1991). "Consumer perceptions of promotional activity," *Journal of Marketing*, 55, 2, 4–16.

Kumar, Nirmalya, Scheer, L., & Steenkamp, J. B. E. M. (1995). "The effects of perceived interdependence on dealer attitudes," *Journal of Marketing* Research, 32, 3, 348–367.

Levin, L. R. (1991). "CMAs: Cooperative merchandising agreements or catastrophic methods of aggression?" *Beverage World* 1505, 110, 49.

Mohr, Jakki, & Low, G. S. (1993). *Marketing management*, Chicago, IL: American Marketing Association.

Nielsen marketing research (1994). *Fifth annual survey of manufacturer trade promotion practices.*

Nisbett, Richard, Borgida, E., Crandall, R., & Reed, H. (1976). "Popular induction: Information is not necessarily informative," *Cognition and Social Behavior*. Hillsdale, NJ: Lawrence Erlbaum Assoc., Inc.

Nisbett, R. , & Ross, L. (1980*). Human inference: Strategies and shortcomings of social judgment.* Englewood Cliffs, NJ: Prentice-Hall, Inc.

Progressive grocer's marketing guidebook (1992). Stamford, CT: Maclean Hunter Media, Inc.

Raghubir, P. (1994). "Investigating the effect of price promotions on brand evaluations: An information processing approach," *unpublished doctoral* dissertation, New York University.

Raghubir, P., & Corfman, K. P. (1994). "When do price promotions signal quality? The effect of dealing on perceived service quality," *Association for Consumer Research Conference Proceedings*, Vol. 22, Frank Kardes and Mita Sujan, Eds., Provo, ut, 58–61.

Ross, Lee, Greene, D., & House, P. (1977). "The 'false consensus effect': An egocentric bias in social perception and attribution processes," *Journal of Experimental Social Psychology*, 13, 2, 279–301.

Sethuraman, R. (1996). "A model of how discounting high-priced brands affects the sale of low-priced brands," *Journal of Marketing Research*, 33, 4, p.399–410.

Taylor, S. E. (1982). "The availability bias in social perception and interaction," Judgment under uncertainty: Heuristics and biases. New York: Cambridge University press.

Tversky, Amos, & Kahneman, D. (1973). "Availability: A heuristic for judging frequency and probability," *Cognitive Psychology*, 5, 1, 207–232.

Tversky, Amos, & Kahneman, D.(1974). "Judgment under uncertainty: Heuristics and biases," *Science* 185, 3, 1124–1131.

Urbany, J. E., Dickson, P. R., & Key, R. (1990). "Actual and perceived consumer vigilance in the retail grocery industry," *Marketing Letters* 2, 1, 15–25.