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The Relationship Between Retail Price Promotions and Regular Price Purchases

Retailers offer temporary price promotions to attract shoppers to stores and encourage them to purchase regular price merchandise. Existing research has found little evidence that price promotions affect regular price sales, possibly because published studies have not directly examined individual purchase baskets to determine if shoppers buying promoted items also purchase regular price items. The authors match actual purchases of individual shoppers with an in-store survey to determine the relationship between regular price and promotion purchasing. The results show a significant, positive relationship between regular price and promotion purchases. Among shoppers who identify the promotion as one of their reasons for visiting the store, three-fourths make regular price purchases. On average, these shoppers spend more money on regular price merchandise than on promotion merchandise. Also, the results show that shoppers visiting the store for the promotion are no less profitable to the store than other shoppers.

Price promotions represent a major component of marketing strategies in retailing. From a retailer's perspective, a primary motivation for offering price promotions is to stimulate sales of regular price merchandise. The prevailing assertion in marketing and retailing textbooks is that price promotions help attract shoppers who purchase regular price merchandise (e.g., Ghosh 1990, p. 446). Although this assertion is widely accepted by retailers and marketing scholars, there is little empirical evidence that offering promotions on selected merchandise positively affects the sales of regular price merchandise.

We describe an empirical study that addresses the relationship between individual customers' regular price and promotion purchases. Specifically, we measure the bundle of regular price and promoted items individual shoppers purchase to determine how promotions affect regular price purchases and individual customer profitability.

The Multiproduct Nature of Retail Price Promotions

The marketing and economics literature contains several theories that provide a rationale for temporary price reductions. These theories include price discrimination (Jeuland and Narasimhan 1985), differences in consumer information (Varian 1980), inventory cost transfer (Blattberg, Eppen, and Lieberman 1981) and diminishing demand over time (Pashigian 1988). Empirical research based on these theories investigates the effects of promotions on brand market share, brand switching, and purchase acceleration. Because these theories were developed for individual brand promotions, they do not incorporate the multiproduct nature of retail price promotions. Retailers often use price promotions to attract shoppers to the store and stimulate sales of regular price merchandise. This multiproduct orientation is described by Mulhern and Leone (1991) as implicit price bundling, that is, setting an item's price on the basis of the expected effects of that price on the sales of other products.

Prior research has attempted to associate regular price purchases with promotion purchases (Walters 1988; Walters and MacKenzie 1988). This research finds a very weak relationship between aggregate promotion and aggregate regular price sales. Of particular interest to retailers is Walters and MacKenzie's (1988) study, which analyzes store level scanner data to determine how retail performance varies from week to week when different promotional portfolios are offered. They find that store traffic, sales, and profits do not vary substantially when different combinations of promotion items are offered. The lack of a strong relationship between aggregate promotion and aggregate regular price sales leads the authors to question the efficacy of price promotions.

One limitation of the existing research is that the relationship between regular price and promotion purchases has only been investigated at the aggregate level. Aggregate level analysis can mask individual consumer purchase behaviors. More important, aggregate data do not reveal whether regular price and promotion merchandise are purchased by the same shoppers—a goal that is consistent with retail strategy. We overcome this limitation by analyzing individual shopping baskets to determine the combination of

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regular price and promotion merchandise individual shoppers purchase.

Hypotheses

We begin by extending one aspect of Walters and MacKenzie's (1988) study concerning the relationship between regular price and promotion sales. Using aggregate data, they found a weak relationship between promotion and regular price purchasing when different sets of promotion items were offered. A more revealing measure of the efficacy of price promotions is the extent to which shoppers who buy promotion items also buy regular price items. This requires analyzing the purchases of individual shoppers. Because retailers want to sell regular price merchandise to promotion shoppers, we expect a positive relationship between the regular price and promotion items among individual shoppers.

H_1: At the individual level, promotion purchases are positively related to regular price purchases.

The joint purchase of regular price and sale merchandise by the same shoppers can represent one of two main possibilities: (1) shoppers visiting the store specifically for the promotion also purchase regular price items on the same visit or (2) shoppers not visiting the store for the promotion purchase promoted items during the visit. Aggregate level analysis cannot separate these two effects. A greater understanding of the relationship between regular price and promotion purchasing can be achieved by disaggregating shoppers with respect to whether the promotion was one of their reasons for visiting the store. Using an in-store survey that asked shoppers to identify their reasons for visiting the store, we distinguish shoppers visiting the store for the promotion from other shoppers. Those shoppers who indicated "for an item in the sale flyer" as one of their reasons for visiting the store are subsequently referred to as *shoppers visiting the store for the promotion.*

While searching for promoted merchandise, a shopper who visits a store in response to an advertised promotion is exposed to product displays and merchandising efforts for a variety of regular price items. This in-store marketing stimuli, which Bettman (1979) refers to as external memory, helps the shopper locate planned items, but can also prompt the purchase of one or more unplanned items. For shoppers visiting the store for the promotion, unplanned purchases will often be regular price items. A shopper's exposure to in-store displays increases when he or she is not familiar with the store and must rely on external memory to find items on the shopping list. Shoppers who choose a store on the basis of price promotions may switch stores frequently, increasing their need for in-store information and their potential for purchasing regular price merchandise.

Such purchase behavior directly reflects the retail strategy of using promotions to stimulate sales of regular price merchandise. We identify regular price purchases made by shoppers who visit the store in response to the promotion as the *price promotion cross effect.* If price promotions work as retailers desire, shoppers visiting the store for the promotion can be expected to purchase regular price merchandise.

H_2: Shoppers visiting the store for the promotion are more likely to purchase one or more regular price items than not to purchase any regular price items.

A second outcome of retail promotions is that shoppers not including the promotion as a reason for visiting the store may decide to purchase promoted items while in the store. Walters and MacKenzie (1988) refer to these sales as *add-on sales.* Add-on sales can represent planned purchases that happened to be on sale, or unplanned purchases prompted by in-store information. However, we expect that shoppers who are familiar with the store will rely primarily on internal memory to find planned items, which should decrease the likelihood of add-on sales to them.

In one sense, add-on sales may be beneficial to retailers because they reward regular shoppers and can engender some positive sentiments. On the other hand, retailers may perceive add-on sales negatively because they can represent (1) forward buying at a discount or (2) stockpiling by shoppers who would otherwise have paid full price for the promoted item. We explore the extent to which shoppers who are not visiting the store for the promotion purchase promoted merchandise. Although some of these shoppers will purchase promoted items, we expect that promotion purchasing will be more common among shoppers visiting the store for the promotion.

H_3: Shoppers visiting the store for the promotion are more likely to purchase promotion items than other shoppers.

We next address how promotions affect store choice behavior. One objective of retail promotions is to attract shoppers to visit one store instead of a competing one. Previous studies have found that though shoppers usually patronize multiple stores (e.g., Cort and Dominguez 1977), they tend to concentrate their purchases at a primary store (e.g., Arnold, Oum, and Tigert 1983). For example, Keng and Ehrenberg (1984) find that food shoppers patronize retail chains in proportion to the market shares of the chains. Because shoppers spread their purchases among competing stores, retailers use price promotions to increase the likelihood of shoppers visiting their store for a given shopping occasion. The reduced margin sales to shoppers visiting the store for the promotion can be viewed as the retailer's cost of attracting additional shoppers to the store. We identify promotion purchases by shoppers attracted to the store by the promotion as the *price promotion draw effect.* Importantly, some shoppers responding to a promotion would not have visited the store otherwise. These are the incremental shoppers that retail price promotions attract to the store.

In addition to motivating some shoppers to switch stores to take advantage of price specials, reduced prices effectively expand the geographic market area of a store, because consumers trade off lower prices with higher travel costs (Ingene and Lusch 1981). Prior studies have found significant cross-store price coefficients, indicating that promoting a brand in one store decreases sales of the same brand in competing stores (Bucklin and Lattin 1992; Kumar and Leone 1988; Walters 1991). These studies provide indirect evidence that price promotions influence store choice decisions. A more direct assessment of the ability of a promotion

to attract shoppers can be made by determining if the shoppers visiting the store for the promotion shop primarily at competing stores. If retail price promotions motivate shoppers to switch stores or attract shoppers from a larger geographic area, shoppers visiting the store for the promotion should be less likely to shop primarily at the store offering the promotion.

H_4: Shoppers visiting the store for the promotion are less likely to shop primarily at the store offering the promotion.

Customer Profitability

Previous studies on price promotions have either excluded profits from the analysis or measured profits only at the aggregate, storewide level. For example, Walters and MacKenzie (1988) relate store level profitability to price promotions and find that aggregate store profits do not differ substantially when different promotional portfolios are offered. To complement this research, we explore the profitability of individual customers.

An important concern is that shoppers who respond to promotions may not be as profitable as other shoppers. If shoppers who respond to the promotion purchase regular price merchandise (H_2), they can be profitable to the retailer, because the margins on the regular price merchandise will help offset reduced margins on promoted goods. However, profitability will be particularly low for shoppers who *cherry pick*, that is, visit the store for the promotion and purchase only promoted items. Because shoppers visiting the store for the promotion are more likely to purchase promoted items than other shoppers (H_3), we expect them to be less profitable to the retailer.

H_5: Customer profitability is lower for shoppers who visit the store for the promotion than for other shoppers.

Method

Testing the hypotheses and quantifying the effects of price promotions on retail sales and store profits requires information on the bundle of products that individual customers purchase and the reasons they visit the store. This information is not available in store scanner or panel data bases, which do not retain information on purchase baskets or reveal the reasons customers visit stores. To obtain the required information, we conducted an in-store survey in two store locations of a chain that sells home improvement products. We matched survey results with customers' actual purchases to determine how regular price and promotion purchasing relate to why shoppers visit the store.

The chain has a total of 11 stores that sell a variety of hardware and home improvement products. In cooperation with store management, two stores were selected for data collection because they are relatively large, have a high volume of customer traffic, and are located in economically healthy retail markets. One store is located in a small, isolated metropolitan area with a population of approximately 90,000 people and four other stores specializing in home improvement products. The other store is located in another small, isolated metropolitan area with a population of approximately 70,000 people and two competing stores.

Data were collected during a three week period in the summer of 1992. During this time, the stores sequentially conducted two 11-day price promotions. Promoted items were advertised in color, free standing inserts in the major newspaper of each city. The promotions offered resemble the retail price promotions studied by other researchers (e.g., Mulhern and Leone 1990; Walters and MacKenzie 1988). One notable difference is that most previous studies investigate temporary price promotions in supermarkets (e.g., Dickson and Sawyer 1990; Mulhern and Leone 1990; Walters and MacKenzie 1988) and clothing stores (e.g., Achabal, McIntyre, and Smith 1990). Our analysis of promotions in home improvement stores provides some balance to the literature. Also, home improvement stores, similar to clothing stores, offer discounts of larger dollar amounts and promotions less frequently than supermarkets do. This provides an amenable setting for determining the effects of price promotions on regular price purchases.

The advertisements appeared twice (Wednesday and Sunday) during each 11-day period and featured approximately 200 items with discounts ranging from 5 to 33%. Copies of the newspaper inserts were not made available to shoppers at the store. However, in both stores, one copy was posted in the window, facing outside. The promotions were identical in the two stores. There were no price reductions during the time period studied other than those that appeared in the advertised sale flyer. Significantly, no price specials were offered in the time periods immediately preceding or following the promotion. This allowed a more precise evaluation of price promotion effects than studies of supermarket promotions, which are usually offered week after week without interruption.

Store clerks asked shoppers to complete the pencil and paper survey at the checkout area while their purchases were scanned. The respondents were told that the purpose of the questionnaire was to gather information to serve customers better. The surveys were administered at the checkout area for three reasons: (1) administering the survey prior to checkout would have alerted shoppers to the promotion and possibly altered their purchase behavior, (2) the checkout area was regarded by store management as the least intrusive place to collect the data, because shoppers would not need to be bothered while shopping, and (3) clerks could easily attach the sales receipt to each completed survey so that actual purchases could be matched with survey responses.

The clerks administered the survey to all shoppers making purchases during preselected times and days of the week. The times and days were selected to obtain a representative cross-section of shoppers on both weekdays and weekends. During the appropriate times, clerks administered the survey in one of the two checkout areas in each store, alternating the data collection between the two checkout areas.

Although the completion rate was not directly measured, all store clerks administering the survey indicated that the completion rate was extremely high, ranging from a low of 75% to over 90%. A total of 448 surveys were obtained. The

sample size was reduced to 412 after 36 incomplete or otherwise unusable surveys were deleted.[1] This sample size is comparable to sample sizes for similar retail studies (e.g., Krishna, Currim, and Shoemaker's [1991] survey of 400 shoppers; Davis, Inman, and McAlister's [1992] survey of 267 shoppers).

Only retail (nonbusiness) shoppers actually making purchases were included in the sample. We refrained from asking customers not making purchases to participate because our primary purpose was to determine how price promotions relate to purchase behavior and retail profits. Also, collecting data from these shoppers would have been difficult, because they do not usually stop at the check-out counter.

Matching actual purchases to self-responses on a survey provides a unique data set for evaluating retail price promotions. Many existing studies of retail promotions use actual purchase data (Bucklin and Lattin 1992; Kumar and Leone 1988; Mulhern and Leone 1991; Walters and MacKenzie 1988). Other studies use self-reports of shoppers (Davis, Inman, and McAlister 1992; Dickson and Sawyer 1990; Krishna, Currim, and Shoemaker 1991). Collecting both self-report and actual purchase data for individual shoppers enabled us to assess the efficacy of retail price promotions more precisely than other studies. Our approach reveals which shoppers identify the promotion as a reason for visiting the store, which shoppers actually purchase promoted items, and what regular price merchandise these shoppers buy.

Empirical Results

Our analysis of individual purchase baskets reveals the extent to which regular price items and promoted items were purchased by the same persons. Among the 412 survey respondents, 47 (11.4%) purchased both regular price and promotion merchandise. An analysis of a 2×2 contingency table shows that the relationship between regular price and promotion purchasing at the individual level is significant ($\chi^2 = 181.3$, $p = 0.0$), thereby, supporting H_1. Although Walters and MacKenzie (1988) do not find a relationship between aggregate promotion and aggregate regular price sales, we find, at the individual level, that regular price purchases are highly correlated with promotion purchases.

To test the remaining hypotheses, we categorized shoppers into two groups on the basis of whether they indicated that the promotion was one of their reasons for visiting the store. We asked shoppers to identify the reasons they visited this store on this shopping occasion. Approximately one in seven (13.6%) of the shoppers indicated that the price promotion was a reason for visiting the store on this occasion. This result is comparable with Dickson and Sawyer's (1990) finding that 17.1% of shoppers purchasing a promoted item claimed to have seen the price for that item in an advertised flyer. Respondents were permitted to identify multiple reasons for why they visited the store. However, over three-fourths of the 56 respondents who listed "for an item in the sale flyer" as a reason for visiting the store, gave this as their only reason for visiting the store.

H_2 addresses the extent to which shoppers visiting the store for the promotion purchase regular price merchandise. Among those shoppers, 76.8% purchased one or more regular price items. Because this is significantly more than the proportion of shoppers not buying regular price items ($F = 32.5$, $p = 0.0$),[2] H_2 is supported. From Table 1 (cell 2), we see that approximately one-half (29 of 56) of the shoppers visiting the store for the promotion purchased only regular price items. Possible explanations for this result include stock-outs, dislike of the promoted item on inspection, or selection of an alternative regular price item. To determine if stock-outs were a problem, we asked respondents if they were able to find everything they wanted. Among shoppers visiting for the promotion, 89% answered this question positively. Therefore, stock-outs cannot explain the lack of promoted-item purchases by one half of the shoppers visiting for the promotion. A more likely explanation is that shoppers visiting for a specific promoted item purchased a regular price item in its place—an outcome that favors retail performance.

From Table 2, we see that regular price purchases by shoppers visiting the store for the promotion represent 9.7% of the total store sales to survey respondents. Shoppers visiting the store for the promotion purchased an average of $18.48 in regular price merchandise, which is substantially larger than the $11.30 they spent on promoted items (see cell 3 in Table 1). Converting this result to a per dollar basis shows that shoppers visiting for the promotion spent $1.63 on regular price merchandise for each dollar they spent on promoted merchandise. This result bodes well for retailers, indicating that the size of the price promotion cross effect is large. The average total purchase for shoppers visiting the store for the promotion ($29.78; cell 3 in Table 1) is not significantly different from the average purchase for other shoppers ($25.17; cell 6 in Table 1).

One concern about retail promotions is that some shoppers visit the store for the promotion and only purchase the promoted merchandise. Several previous studies have described this behavior as cherry picking, but none have quantified it. We find that 23.2% (13 of 56) of the shoppers visiting the store for the promotion purchased only promoted items. In effect, 3.2% of all shoppers were cherry pickers. Although we have no other empirical research to compare this result to, it appears to be reasonably low.

We next consider add-on sales—promotion purchases by shoppers not visiting the store for the promotion. From Table 1 (cell 4), we see that 19.1% (68 of 356) of the shoppers not visiting the store for the promotion purchased promoted items. This is significantly less than the 48.2% (27 of 56) of those shoppers who visited the store for the promotion and purchased a promoted item ($F = 25.79$, $p = 0.0$). H_3 is supported; shoppers visiting for the promotion are more likely than other shoppers to purchase promotion items. Table 2 shows that add-on sales represent 10.9% of the total sales to survey respondents. Nearly two-thirds (64.8% or

[1]Surveys were deemed unusable if a copy of the sales receipt was missing or most of the questions were unanswered.

[2]F-tests reported in this section are from one-way ANOVAs.

TABLE 1
Promotion Purchasing and Reason for Visiting the Store

	Shoppers Purchasing Promoted Items*	Shoppers Not Purchasing Promoted Items	Total
Shoppers Indicating the Promotion as a Reason for Store Visit	*cell 1* n = 27 (6.6%) *average purchase* promotion $23.44 regular 10.30 total 33.74	*cell 2* n = 29 (7.0%) *average purchase* promotion — regular $26.10 total 26.10	*cell 3* n = 56 (13.6%) *average purchase* promotion $11.30 regular 18.48 total 29.78
Shoppers Not Indicating the Promotion as a Reason for Store Visit	*cell 4* n = 68 (16.5%) *average purchase* promotion $17.12 regular 16.78 total 33.90	*cell 5* n = 288 (69.9%) *average purchase* promotion — regular $23.10 total 23.10	*cell 6* n = 356 (86.4%) *average purchase* promotion $ 3.27 regular 21.90 total 25.17
Total	*cell 7* n = 95 (23.3%) *average purchase* promotion $18.72 regular 15.13 total 33.85	*cell 8* n = 317 (76.9%) *average purchase* promotion — regular $23.39 total 23.39	*cell 9* n = 412 (100%) *average purchase* promotion $ 4.36 regular 21.44 total 25.80

*Percentages refer to each cell's portion of all survey respondents.

TABLE 2
Distribution of Purchase Dollars of Survey Respondents

	Number of Respondents (% of total)	Promotion Sales Dollars (% of total)	Regular Price Sales Dollars (% of total)	Total Sales Dollars (% of total)
Shoppers Indicating the Promotion as a Reason for Store Visit	56 (13.6%)	$ 633 (6.0%) *draw effect*	$1,035 (9.7%) *cross effect*	$ 1,668 (15.7%)
Shoppers Not Indicating the Promotion as a Reason for Store Visit	356 (86.4%)	1,164 (10.9%) *add-on sales*	7,799 (73.4%) *normal sales*	8,963 (84.3%)
Shoppers Purchasing Promoted Items	95 (23.3%)	$1,797 (16.9%)	$1,419 (13.3%)	$ 3,216 (30.2%)
Shoppers Not Purchasing Promotion Items	317 (76.9%)	———	7,415 (69.7%)	7,415 (69.7%)
Total	412 (100%)	$1,797 (16.9%)	$8,834 (83.1%)	$10,631 (100%)

TABLE 3
Profitability By Shopper Type

	Average Profit Dollars Total Profit Dollars		
	Shoppers Purchasing Promoted Items	**Shoppers Not Purchasing Promoted Items**	**Total**
Shoppers Indicating the Promotion as a Reason for Store Visit	*$ 4.69** 126.63	*$ 6.53** 189.23	*$ 5.64* 315.84
Shoppers Not Indicating the Promotion as a Reason for Store Visit	*$ 5.74*** 390.32	*$ 5.78* 1663.64	*$ 5.77* 2054.69
Total	*$ 5.46* 518.94	*$ 5.85* 1854.45	*$ 5.75* 2369.00

*Significantly different from the $5.78 benchmark.
**Not significantly different from the $5.78 benchmark.

$1164/$1797) of the promoted-item sales were to shoppers who did not visit the store for the promotion.

H_4 addresses the ability of price promotions to attract shoppers who normally shop at competing stores. Survey respondents were asked if this store was their primary source for home improvement products. Among shoppers visiting the store for the price promotion, 42.3% considered some other store to be their primary store. In contrast, 23.5% of the shoppers not visiting for the promotion considered some other store to be their primary store. This difference is significant ($F = 8.25$, $p = .0043$) and indicates that the promotion successfully attracted shoppers who were less likely to shop primarily at this store.

Customer Profitability

We assess profitability at the individual level by combining data on individual shopper purchases with unit costs. Profits were computed by subtracting unit cost from unit price to derive unit margin and summing unit margins across all items purchased by each customer. Profitability results pertain only to unit profit margin. Overall profit is a function of unit margin and the related costs of conducting the promotion including advertising expenses, sale price markers, and additional inventory carrying costs. Table 3 provides total and per customer profitability results.

According to H_5, shoppers visiting the store for the promotion should be less profitable than other customers. The customer profitability for shoppers visiting the store for the promotion was $5.64, which is not significantly different from the $5.77 spent by shoppers not visiting for the promotion ($t = .30$, $p = .3821$). H_5 is not supported. This is a favorable result for retailers, who are concerned that promotions may attract unprofitable customers. Shoppers not visiting the store for the promotion and not purchasing promoted items had a per person profitability of $5.78. We use this figure as a benchmark for customer profitability.

Shoppers visiting the store for the promotion and purchasing promotion items had the lowest per person profitability of $4.69, which is significantly lower than the benchmark ($t = 3.82$, $p = .0002$). The most profitable shoppers are those who visited for the promotion, but only purchased regular price goods. These customers had a per person profitability of $6.53, which is significantly higher than the benchmark ($t = 2.63$, $p = .0086$).

We also investigated the possibility that add-on sales damage retail profitability. As is shown in Table 1, the average purchase amount of shoppers not visiting the store for the promoted items, but purchasing them, was $33.90, which is approximately ten dollars higher than for shoppers in the normal sales category—those who did not indicate the promotion as a reason for visiting and did not purchase a promoted item. This higher dollar expenditure offsets the lower margin on promotion purchases to yield a comparable profit per customer of $5.74, which does not significantly differ from the benchmark of $5.78 ($t = .074$, $p = .4472$). Thus, shoppers not visiting for promoted items, but buying them anyway, were no less profitable than other shoppers.

Finally, we note some observations about the profitability of shoppers buying promoted items. These shoppers represented 23.3% of all customers, and purchased 30.3% of the total sales. As is shown in Table 1 (cell 7), shoppers buying promoted items spent an average of $33.85, which is significantly larger than the $23.39 average purchase by shoppers not buying promoted items ($F = 5.10$, $p = .0244$). For shoppers buying one or more promotion items, the sales items account for 55.3% (i.e., $18.72/$33.85) of their purchase dollars. The average purchase of $33.85 included $15.13 in regular priced sales.

Discussion and Implications for Retailers

Our objective was to empirically determine the relationship between regular price and promotion purchasing. We find a significant, positive correlation between regular price and promotion purchasing at the individual level. Over three-fourths of the shoppers identifying the promotion as a reason for visiting the store purchased one or more regular price items. Shoppers visiting the store for the promotion spent more money on regular price merchandise than on promoted merchandise.

The results of our study have several implications for retailers. We find that shoppers visiting the store for the promotion are less likely to shop primarily at the store offering the promotion. Because these shoppers are typically less familiar with the store layout than other shoppers, we expect them to be more sensitive to in-store stimuli, such as shelf allocations, special displays, and signs. Retailers can use this dependence on in-store information in several ways. Hess and Gerstner (1987) note that retailers may want to use special displays for regular price impulse goods during price promotion periods. Displaying this merchandise close to promoted items increases the likelihood that shoppers will be exposed to the products and make unplanned regular price purchases while looking for promoted items.

We find that the bulk of promotion purchases were made by shoppers who did not visit the store in response to the promotion advertisement. However, these shoppers were no less profitable than other shoppers. For shoppers who do not respond to a promotion, the promoted items may act as a reward for their patronage if the shoppers are aware of the discounted prices. It is likely that many of the shoppers buying promoted items are not aware that they are purchasing items at discounted prices (Dickson and Sawyer 1990). Retailers may want to inform shoppers at the checkout counter of the savings the customers achieved by purchasing the promoted items. Some retailers print "bonus buy" or "sale price" on the receipt for each promoted item purchased. Such information could enhance the shoppers' perceptions of and satisfaction with the store.

Promotion sales to shoppers not visiting the store for the promotion (i.e., add-on sales) occur because retailers cannot perfectly price discriminate. When price promotions are designed primarily to influence store choice decisions, retailers may want to limit add-on sales. Some retailers restrict the number of units of a promoted item a customer may purchase. A more effective way to limit add-on sales is to offer promotions only to selected shoppers, rather than make them available to all shoppers. For example, a direct mail promotion offering coupons to specific shoppers could attract shoppers and increase regular price sales without creating add-on sales. With such a promotion, the retailer achieves a more precise level of price discrimination (Jeuland and Narasimhan 1985). We should see much finer levels of price discrimination in the future as consumer data bases and direct communication technologies become more prevalent.

There are several possible long-term effects of retail promotions that we have not addressed. One important long-term consideration is the future shopping behavior of shoppers who visit a store in response to a promotion. These shoppers constitute a group of deal-prone consumers who are willing to alter store patronage patterns to take advantage of price specials. Retailers may be able to generate future shopping trips by these customers by managing the mix of promoted items and the level of discounts. This represents a form of relationship marketing, because one-time buyers can be converted to regular shoppers.

Because promotions have such strong effects on individual product sales, retailers can use them to build strong relationships with suppliers. Manufacturers and retailers can engage in strategic alliances that use price promotions to benefit both parties. For example, some retailers combine individual brand promotions with an overall store promotion by providing a coupon worth one dollar off a future purchase at that store to shoppers who purchase multiple units of a promoted brand.

Price promotions may have negative consequences. One obvious concern is that promotions cannibalize future sales of regular price merchandise. Also, by making price more salient, promotions may detract from shoppers interest in or satisfaction with the quality of the products and services the retailer provides. Finally, promotions that are offered too frequently may condition consumers not to purchase merchandise unless it is promoted.

Limitations and Further Research

Much of our analysis relies on our ability to separate shoppers who visited the store for the promotion from other customers. Because we collected data after purchases were made, some shoppers may have had difficulty recalling why they visited the store. Approximately one-fourth of the shoppers we identified as visiting the store for the promotion also visited for other reasons. On balance, the promotion may not have been particularly important to all of these shoppers.

Our study does not address either the size of the price discounts as did Mulhern and Leone's (1990) study or the nature of the promoted products as did Walters and MacKenzie's (1988). Our sample size was not sufficiently large to make any general statements about which types of promoted items or levels of price discount are most effective. Further research should explore what type of products and price discount levels generate the strongest consumer response. For example, additional research could explore whether cherry pickers are more likely to purchase deeply discounted items or whether shoppers visiting the store for the promotion purchase different promotion items than shoppers making add-on purchases.

We knew whether each shopper primarily shopped at the chain in our study. However, there are many other aspects of store patronage that remain unanswered. We did not explore how shoppers patronize each of the competitors. Additional research should explore how the geographic location and promotional activities of competing stores relate to store patronage. For example, it is likely that promotions by nearby competitors affect a store's performance more than promotions by distant competitors.

Our study is also limited to the short-term effects of the retail promotion and does not address the long-term consequences mentioned previously. Further research on retail price promotions should explore long-term aspects of price promotions, such as how promotions influence future shopping behavior and individual customer profitability over time.

Conclusion

Recently, there has been concern about negative consequences of retail price promotions, such as increased price sensitivity, weakening of brand franchise, and cannibalization of regular price sales. However, as Farris and Quelch (1987) describe, price promotions have numerous positive consequences, such as helping companies manage variations in supply and demand, inducing trial, and enhancing the shopping experience. An additional benefit for retailers is that price promotions can attract shoppers who will also purchase regular price merchandise. We empirically show that this behavior does occur and, thereby, provide justification for the use of short-term promotions in retailing.

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