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Grocery Store Buying Behavior: Evidence From Loyalty Program Data

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Card-based customer loyalty programs are designed to track individual- and/or household-level shopping behavior at the point of sale (POS). As illustrated in Figure 1, card-based customer loyalty programs use shopper identification cards (or customer loyalty cards) to track consumer purchases and behaviors. Consumers receive a card from the retailer with a unique number or bar code that can be entered or scanned at the POS. To encourage use of the card on every shopping trip, consumers are offered rewards in the form of price discounts, promotional programs, charity donations, etc. In addition, when customers use their card at the POS, the retailer is able to collect a vast amount of data on the cardholder's shopping behaviors. Through the analysis of the data, the retailer can silently observe customer purchase behavior and track changes in behavior over time, allowing the retailer to further reward their customers and to alter the products and services they offer to match customer demand.

Adoption

The grocery store industry appears to be adopting the use of customer loyalty programs. According to *Supermarket News*, approximately 50 percent of retailers have launched a customer loyalty program (Blair, 1999). Of the retailers using the program, 60 percent feel it is successful (Blair, 1999). The success of the program may be attributed to the characteristics of customer loyalty cardholders. According to the Food Marketing Institute's (FMI) 1997 "Electronic Marketing Survey of Food Retailers," consumers who use their customer loyalty card when they shop: (1) have higher average transaction sizes overall; (2) have lower defection rates; (3) contribute more to gross margin; (4) shop more often; and (5) spend more per week than customers who do not use their customer loyalty card when they shop (FMI, 1997).

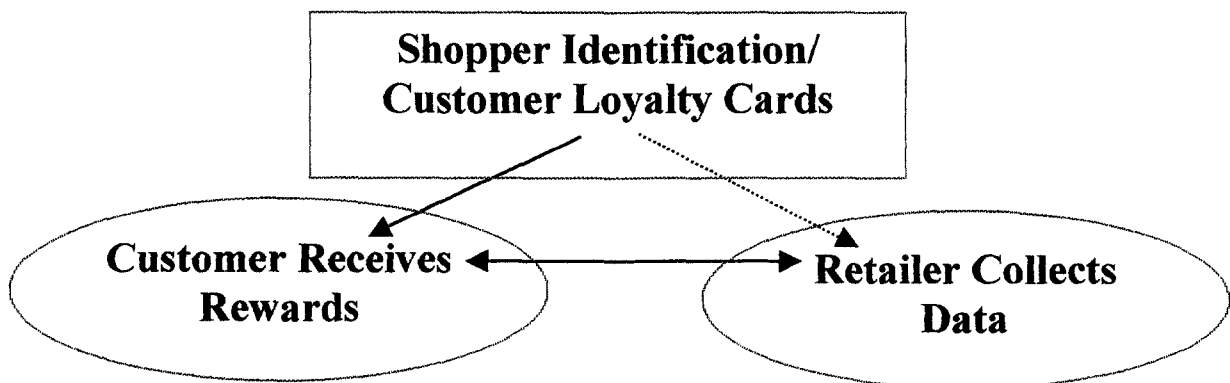


Figure 1. Customer Loyalty Programs, Card-Based.

Consumers are also adopting the use of customer loyalty cards at an aggressive rate. According to ACNielsen's third annual frequent shopper survey, 66 percent of U.S. households participate in at least one supermarket customer loyalty program, and 82 percent of these customers use their card every time they shop (ACNielsen, 1999). The rate of consumer participation in customer loyalty programs has been increasing since its beginnings in the mid-1990s (Figure 2). From 1996 to 1997, consumer participation increased 57 percent. From 1997 to 1999, participation increased an additional 20 percent.

Rewarding the Customer

The rewards that customers gain by using their customer loyalty cards are the key driver in encouraging card use. According to the Retail Food Industry Center's (RFIC) "1999 Supermarket Panel," in the 100 retail stores participating in the customer loyalty section, reduced prices are the most common form of reward across the industry (Figure 3). The retailer rewards the consumer by offering discounted prices on selected items throughout the store. Consumers who purchase the selected items will receive the discounted prices when their loyalty card is scanned at the POS.

Sweepstake drawings are the second most common form of reward. When customers use

their customer loyalty card at the POS, they are electronically entered for the sweepstakes drawing. If the sweepstakes promotion is co-sponsored with a manufacturer, the consumer can be entered an additional time when they purchase particular products or brands. At the end of the promotional period, winners are electronically drawn from the qualifying entries.

The third most common form of rewarding consumers is through a non-tiered continuity program. Typically, non-tiered continuity programs require consumers to spend a fixed dollar amount over several weeks. If the consumer reaches the spending threshold, s/he receives a free Thanksgiving turkey or Easter ham, for example. A tiered continuity program would have more than one qualifying threshold level and varying levels of rewards based on the threshold reached. Less common forms of reward include charity donations, front-end coupons, and newsletters.

Collecting the Data

The range of data being collected by retailers is immense. The data currently being collected can be organized into the following two groups: (1) demographic data, or data that is given by the customer, and (2) shopping trip data, or data generated at the POS.

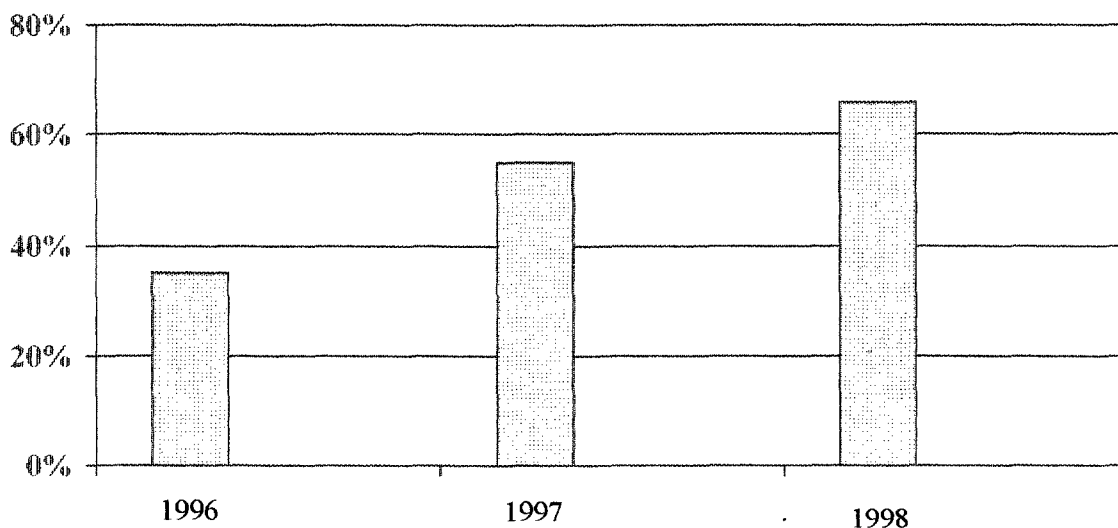


Figure 2. Supermarket Customer Loyalty Program Participation.

Source: ACNielsen (1999).

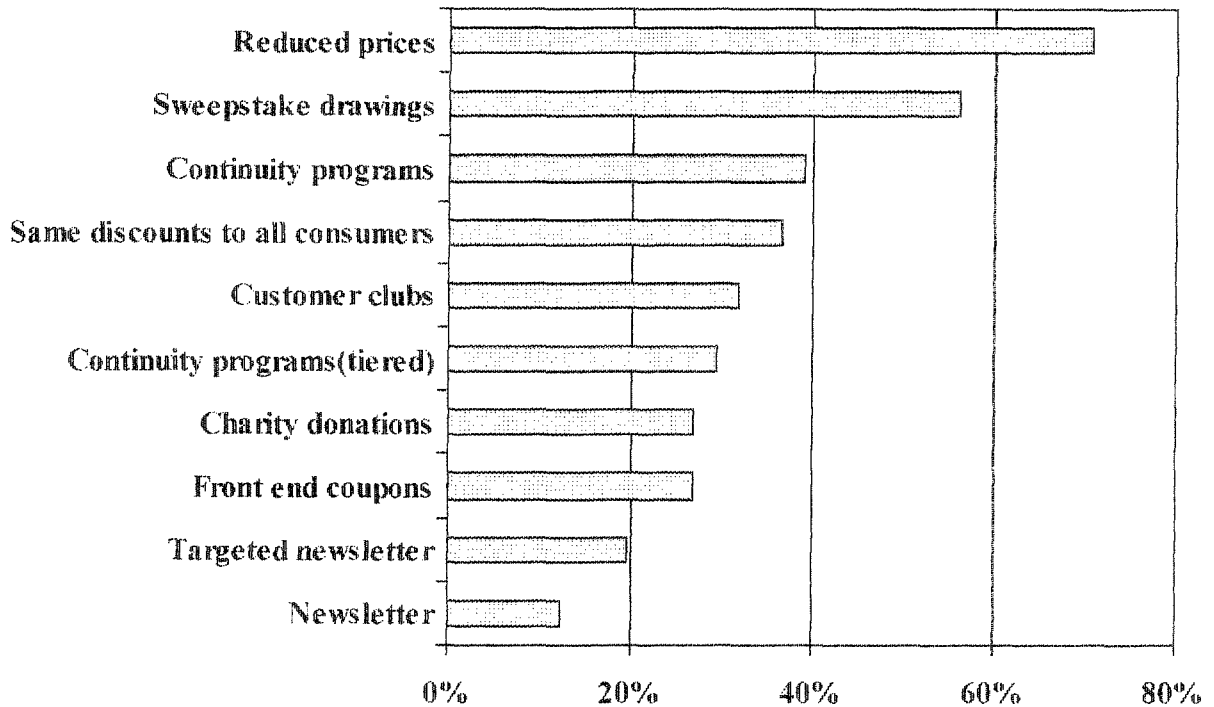


Figure 3. How Retailers are Rewarding Customers.

Source: RFIC (1999).

The demographic data collected is unique to customer loyalty databases; the traditional POS scanner data collected by grocery store retailers does not contain any demographic data. Demographic data is usually collected when the customer obtains a customer loyalty card by filling out a registration form. According to the RFIC's "1999 Supermarket Panel," the most common demographic data collected is name and address, with phone number being collected to a slightly lesser extent (Figure 4). These results are not surprising; this type of information is asked of consumers on a regular basis and is consequently the easiest to collect.

Very few retailers are collecting the most informative, and perhaps most useful, demographic data. Household size, household makeup, and competitor stores shopped are collected by less than 15 percent of retailers surveyed. This type of demographic data is harder to obtain from consumers, especially if the consumer sees no benefit in disclosing this type of information.

The second broad category of data being collected by retailers pertains to shopping trip be-

haviors and preferences. Shopping trip data is collected at the POS via scanning and then loaded into a retailer's customer loyalty database. What makes this type of data different from traditional POS scanner data is that customer loyalty data is tied to individual consumers and/or households via the shopper identification card number. Scanner data cannot tell you if a customer has been in the store once during the past two weeks or every day. Customer loyalty data, however, can tell you exactly how many times a customer has been in the store in the last two weeks, month, or year. Scanner data cannot tell you what days of the week or time of day the consumer visited the store. Customer loyalty data can tell you the day of the week, the time they were at the checkout, the checkout lane they were in, and how they paid for their groceries. Scanner data cannot tell you what was in the basket of the consumer each time s/he was in the store. Customer loyalty data can tell you exactly what was in the consumer's basket each time s/he was in the store; it can also tell you the prices paid, units purchased, total dollars spent, and coupons redeemed.

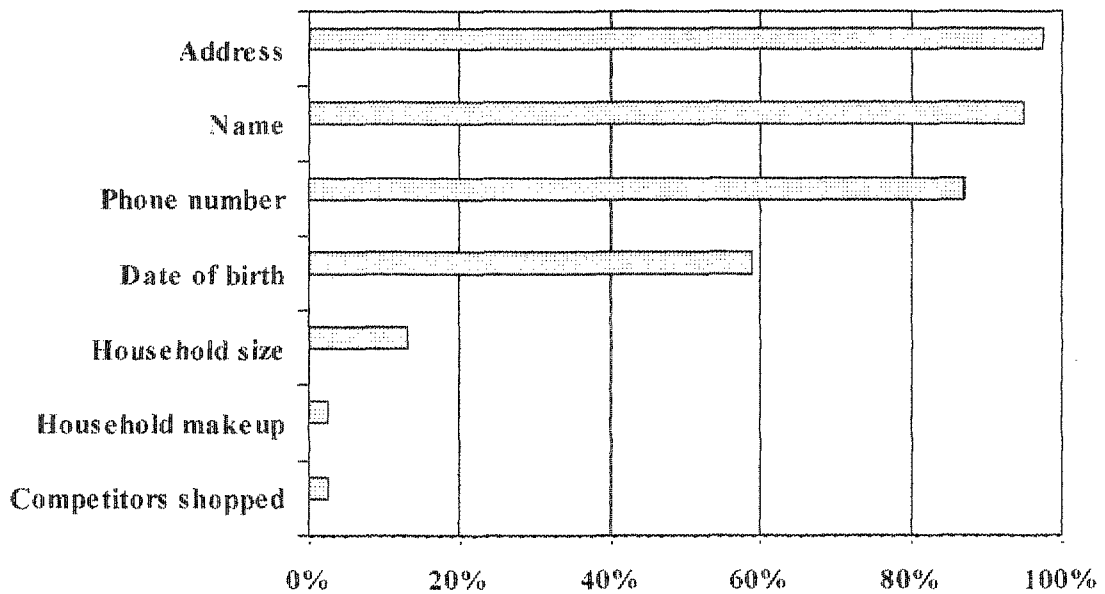


Figure 4. Data Collected, Demographics.

Source: RFIC (1999).

According to the RFIC's "1999 Supermarket Panel," total dollars spent, frequency of transactions, and days shopped are the most commonly collected shopping trip data (Figure 5).

At the other end of the data collection spectrum, less than 25 percent of retailers collect data at the stock-keeping unit (SKU) level. This type of

data would include information specific to each individual item purchased by the customer. For example, the retailer would know the exact size, variety, flavor, price, and quantities of frozen pizzas purchased. Or, the retailer could discern customers who purchased a specific item on promotion from those who purchased a competing brand.

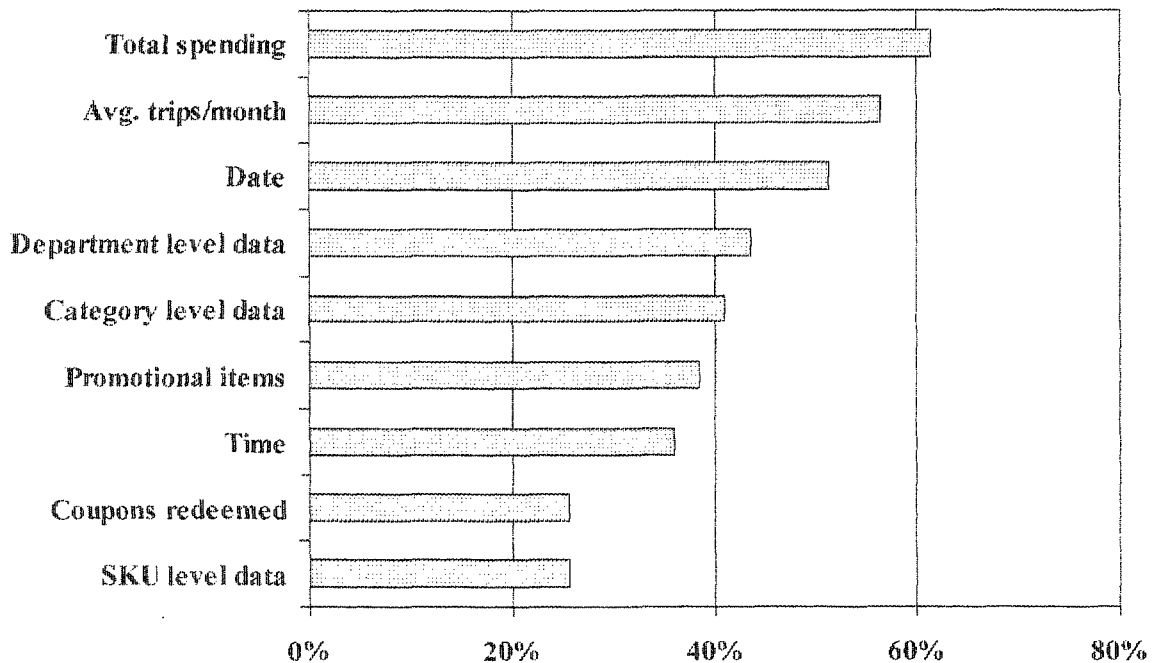


Figure 5. Data Collected, Shopping Trips.

Source: RFIC (1999).

Analyzing the Data

Through the analysis of the data, a retailer can silently observe its customers' purchase behavior and track changes in behavior over time. The manner in which the grocery store industry is currently using the data can be organized into two groups: (1) data used to impact key customer groups and (2) data used to make store-level decisions.

Before retailers can use the data to impact key customer groups or to make decisions, they must first analyze the data to understand their consumers' grocery store buying behaviors. For example, at the very least, retailers can analyze the data to determine who their best customers are. Or, the retailer can choose to analyze the data to determine not only who the best customers are but what the best customers are buying, what they are not buying, how often they shop, how profitable they are, and the amount of savings that they realize. This type of analysis can be performed for any number of customer groupings by simply replacing the word "best" with other relative adjectives, such as new customers, lost customers, untapped potential customers, or declining customers. Thoroughly analyzing customer loyalty data to understand grocery store buying behavior allows retailers to fully exploit the power of the data.

According to the RFIC's "1999 Supermarket Panel," targeted mailings are the most common

way that retailers are using their data (Figure 6). By analyzing customer loyalty data, the retailer can, at the very least, determine the target group for the mailing. With more in-depth analysis, the retailer also can use the data to determine what type of offer would be meaningful and most effective for the targeted customer group.

Thanking customers is also a common use of the data across the industry. Retailers can, at the very least, analyze the data to determine whom they wish to thank. If retailers want to determine the most effective way to thank their customers—for example, with a free item, dollars off their next visit, or through a special service—the retailer can analyze the data to determine which venue would be most appreciated and would have the greatest impact.

More than 65 percent of participating retailers are using the data to impact declining or lost customers while more than 50 percent are using the data to impact new customers (RFIC, 1999). At the very least, the retailer can analyze the data to determine which customers fall into each group. By analyzing the data further, the retailer can develop a program to effectively communicate with each customer group. In the case of lost or declining customers, retailers need to rebuild their relationship with these consumers. With new customers, retailers need to focus on strengthening their relationships.

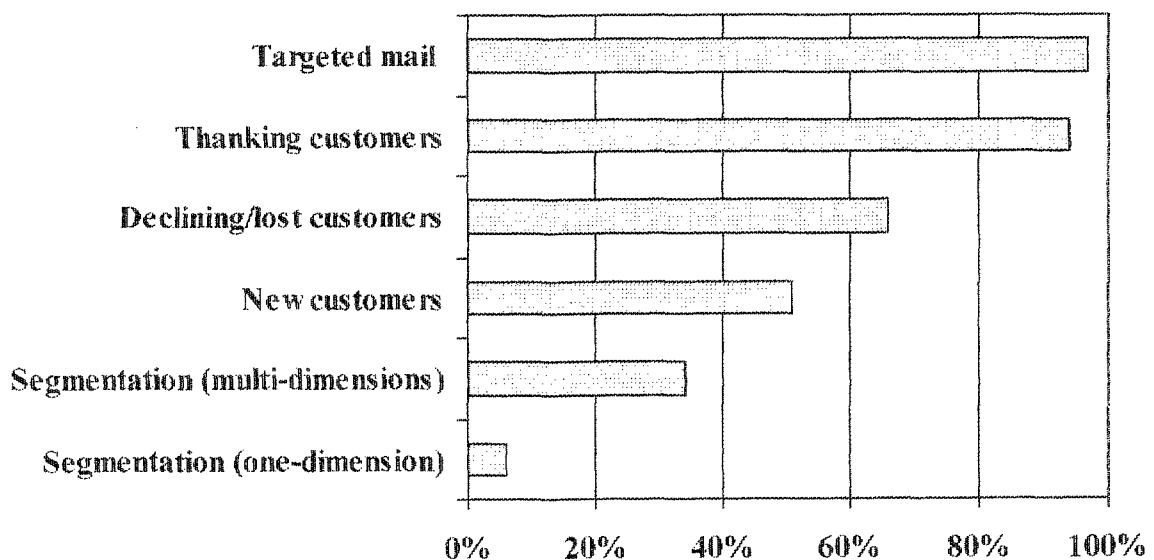


Figure 6. Using the Data to Impact Key Customer Groups.

Source: RFIC (1999).

Very few retailers are using the data to segment their customer base to impact key customer groups. Multi-dimensional segmentation involves using more than one variable to segment your customer base; for example, total dollars spent and frequency of transactions are used to segment the customer base. By analyzing the data beyond who belongs in each segment, the retailer can effectively communicate and strengthen their relationships with their consumers.

The second broad category of how retailers are using customer loyalty data pertains to making promotional and store-level decisions. Based on the RFIC's "1999 Supermarket Panel," retailers are using the data to make item-specific promotion decisions (Figure 7). Retailers can analyze the data to determine which items would be the most effective to use in a promotion across all customers. Or, retailers could analyze the data to determine what item would be most effective for unique customer groups. For example, households with small children would value promotions of baby items more highly than one-person households would.

Retailers are also using customer loyalty data to conduct targeted research. For example, if a competitor store opens right across the street from a retailer's store, the retailer can analyze the customer loyalty data to determine which customers may be inclined to shop at the new store. By identifying the vulnerable, or middle-tier, customers, the retailer can develop promotions specific to

those customers and can attempt to prevent them from switching to the competitor store.

Retailers are also using customer loyalty data to make category management and merchandising decisions. A retailer can analyze its customer loyalty database with a particular group of customers in mind, for example, the most profitable customers. By determining which types of products the profitable customers find most valuable, the retailer can then use this information to make decisions that meet and potentially exceed the profitable customer's expectations. For example, using this type of information in conjunction with traditional category management information the retailer can make product assortment and shelf space allocation decisions in alignment with its most profitable consumers. Or, the retailer can determine which new products would likely be well-received by its profitable customers.

Finally, less than 25 percent of retailers are using customer loyalty data to make pricing or labor-scheduling decisions (RFIC, 1999). Ideally, a retailer could analyze its customer loyalty database to determine a pricing strategy for an individual store or an entire chain. For example, each department or category could have its own pricing strategy based on the preferences of the consumers who shop the department or category. Or, a retailer could align its entire store's pricing strategy to complement its most profitable or untapped potential customers' preferences.

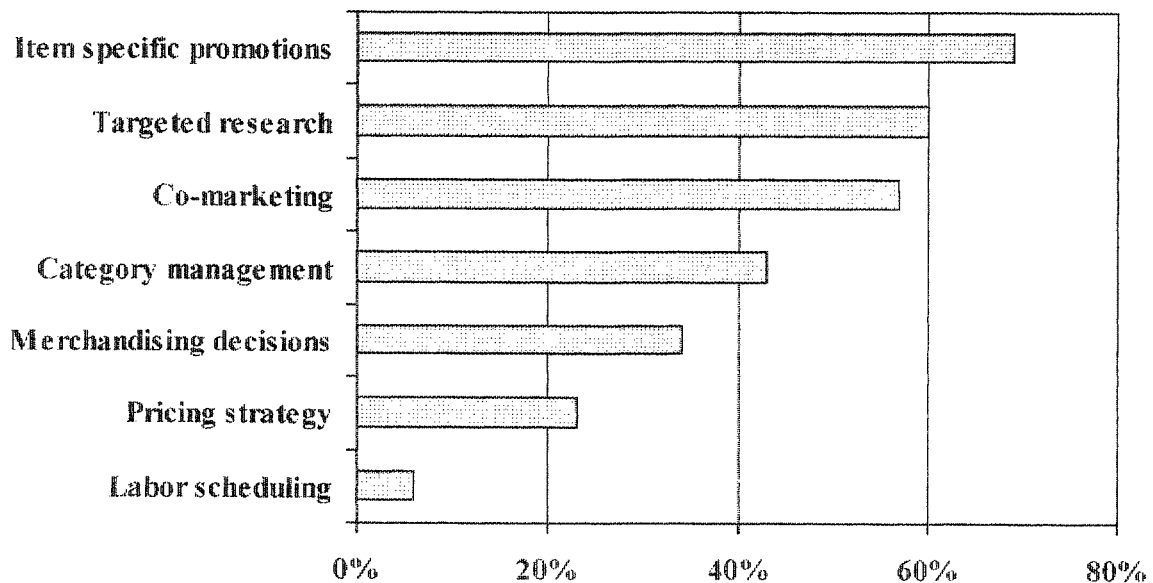


Figure 7. Using the Data to Make Store-Level Decisions.

Source: RFIC (1999).

In terms of labor scheduling, a retailer could ensure its most profitable customers that, when they shop the retailer's stores, the shelves will be fully stocked and the customers will be able to efficiently move through the checkout line. Using a customer loyalty database, a retailer can determine the days, and time of day, the most profitable customers are in the store. With this type of information, each store could adjust its labor schedule to ensure that its shelves are stocked and its checkout lines are fully staffed to better serve the store's profitable customers.

Issues and Concerns

Issues and concerns are rarely absent from any new innovation or form of technology. In the case of customer loyalty programs, several issues and concerns exist. First, the volume of data being collected is immense. Immediate issues surrounding this concern include where the data is going to be stored, how long it will be stored, and whether sufficient technical knowledge and support exist within the organization. According to FMI's 1998 "Electronic Marketing Survey of Food Retailers," 39 percent of the respondents are limiting, or expect to limit, how long the data is saved, and 24 percent of the respondents limit, or expect to limit, the amount of data collected and saved per customer (FMI, 1998).

The second concern is associated with analyzing the data. Appropriate software needs to be purchased or developed, and analysts need to be trained to utilize the software and to understand and manipulate the results. Finally, priorities need to be set with regard to how the data should be analyzed.

The third concern relates to data integrity. Maintaining a clean database is essential in obtaining meaningful and accurate results. Addresses change every week; customer loyalty cards are lost; cards are abused at the store level; new cards are issued without obtaining accurate customer information; price and item-level information needs to be updated; new products need to be added; and old products need to be removed from the database. Processes need to be developed to ensure that the data is accurate and that it is maintained on a regular basis.

The fourth concern relates to customer privacy. Retailers have established policies that prevent the

privacy of their customers from being abused. Typically, to receive the customer loyalty card, a statement is provided on the registration form that the customer fills out. It is essential that retailers continue to ensure the customers that their privacy will be protected.

Finally, and perhaps most importantly, all levels of management need to realize and accept the value and power in analyzing customer loyalty data. Without the support and use of this data by top levels of management, customer loyalty data will never become an acceptable tool for impacting key customer groups and for making effective and meaningful promotional and store-level decisions.

Conclusion

The use of customer loyalty programs by the grocery store industry is becoming more common. Through customer loyalty programs, retailers can begin to understand their consumers' shopping behaviors. Using the data collected at the POS, retailers can impact key customer groups and can make effective store-level decisions. According to the Boston Consulting Group (1997), using information appropriately will be the most important challenge for retailers in the next five to 10 years.

Customer loyalty programs are also beginning to impact store performance. According to the RFIC's "1999 Supermarket Panel," 21 percent of respondents are very satisfied, and 62 percent are somewhat satisfied with the effect of their customer loyalty program on store performance (RFIC, 1999). According to FMI, increase in sales volume and increase in transaction size are the most common performance measurements used to evaluate customer loyalty programs (FMI, 1999).

The costs associated with adopting and maintaining a customer loyalty program are also beginning to be offset. According to the RFIC's "1999 Supermarket Panel," 15 percent of respondents agree that a great deal of the cost associated with a customer loyalty program is offset by increased revenue, and 61 percent feel that some of the cost is offset (RFIC, 1999). According to FMI, more than one-half of respondents defray the cost of a customer loyalty program, either through manufacturers' support or discontinuation of other promotional programs (FMI, 1999).

References

- ACNielsen. 1999. "Third Annual Frequent Shopper Survey Study."
- Blair, Adam. 1999. "Supermarket Technology, The Big Picture." *Supermarket News*. February 22:1A-19A.
- Boston Consulting Group. 1997. "Knowing Your Customer: How Customer Information Will Revolutionize Food Retailing, Project VII." Coca-Cola Retailing Research Group. March.
- FMI (Food Marketing Institute). 1997. "Electronic Marketing Survey of Food Retailers."
- FMI (Food Marketing Institute). 1998. "Electronic Marketing Survey of Food Retailers."
- RFIC (Retail Food Industry Center). 1999. "1999 Supermarket Panel." Privately Held Database, RFIC, Department of Applied Economics, University of Minnesota.