

MEASURING AND MANAGING RETURNS TO IN-STORE FREE SAMPLE PROMOTIONS

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ABSTRACT

In-store product sampling has been widely used as a promotional technique that provides prospective consumers with a free trial of a product prior to purchase. This paper investigates the impact of in-store sample promotions on consumer purchasing behavior. In addition, this study explores the impact of demographics characteristics (gender, age, and household income) using data from retail grocery stores in Korea. The results show that in-store free sampling has a significant sales impact on both focal and competing brands. Furthermore, the finding from the experiments demonstrate that the returns to the sampling vary widely depending on customers' demographics. Implications for marketing managers are discussed and suggestions for future research are offered.

Keywords: Retail, Promotion, In-Store Sample.

INTRODUCTION

Both manufacturers and retailers in the grocery industry frequently engage in in-store free promotions that involve the distribution of product samples. In-store free sampling provides consumers with an opportunity to experience a product prior to purchase in the aisles of a store. Previous literature has shown that the impact of promotion on sales in a grocery store tend to be larger than that of other forms of marketing activity (Chandukala et al., 2017). Specifically, in-store sample is considered to be more effective in building brand awareness and customer loyalty, encouraging brand switching, and expanding category sales. Manufacturers prefer in-store promotions relative to price-based promotions because they encourage customer trial, switch and purchase without reducing margins. Retailers also pursue in-store promotion because it enhances the consumer shopping experience, both brand and category sales, and store loyalty (Sprott & Shimp, 2004). Thus, both manufacturers and retailers have a strong incentive to jointly conduct in-store promotions. One marketing tool often used but rarely studied is in-store free sampling promotions (Chandukala et al., 2017). Most of academic research has been devoted to examine the impact of price-related promotion or customer loyalty. To fill the gap in the literature, this study aims to measure returns to in-store free sampling and whether customer's demographic characteristics moderate the impact. We focuses on the use of in-store free samples presented within a grocery chain in Korea. This paper presents results from a field experiment using scanner data of a retailer's loyalty program. Our study provides useful insights for marketing managers of both manufacturers and retailers.

The remainder of the paper is organized as follows. Section 2 briefly reviews previous literature on product sampling and on key features and develops the hypotheses. Section 3 provides the details of in-store field experiments and describes the data used for analysis and then presents the findings obtained from the analysis. Finally, section 4 concludes with a discussion of the key managerial implications, limitations of our research and potential extensions for future research.

LITERATURE REVIEW AND HYPOTHESIS

In-Store Free Sample

In-store free sampling is one of the more widely used promotional techniques in many industries. It is perhaps most effectively used as an invitation to customers to try focal products prior to a real purchase. In-store free sample is often considered as part of a strategy to increase sales by providing customers with a direct opportunity to try and experience the product (Sun, 2011).

In-store free sample promotions have unique characteristics. First, in-store free sample promotions may be affected by situational factors as they occur in a public setting. These situational factors include the way the sample is presented and the presence of sales person, demonstrator, or others customers when the free sample is distributed. Any of these environmental factors could have a significant impact on a consumer's sample trial and product purchase decisions. Second unique characteristic of the promotion technique is a marketing manager's lack of control on the delivery of samples. In general, the distribution of free samples is performed by demonstrator at the promotion site and determined by consumers' willingness to try. In fact, this marketing manager's lack of control, in combination with situational factors, ultimately defines the impact of in-store free sample.

Prior research has demonstrated that in-store sampling promotion increases sales by encouraging brand switching, product trial, purchase acceleration or stockpiling (Lammers, 1991; Shi et al., 2005). Theoretical explanations is that in-store free sample provides vivid and intentional exposure to the promoted product, which stimulates customer's direct learning (Hoch, 2002). Product knowledge obtained through direct product experience leads to an increase of brand belief and brand trust (Smith & Swinyard, 1988). In addition, direct contact with a demonstrator at the promotion site reduces uncertainty and risk as it can provide additional information about the product. In sum, previous studies strongly suggest that in-store free sampling encourages trial of a promoted product, stimulates customer learning, and enhances brand trust, thus leading to a sales increase.

H₁: In-store free sample promotion has a positive impact on sales.

Demographic Characteristics

Previous research has demonstrated the importance of customers' demographic characteristics on customers' responsiveness to several promotional strategies (Bawa & Shoemaker, 1987). Specifically, studies explore the effect of age, gender, and household income (Narasimhan, 1984; Park & Gomez, 2004; Vipul, 2010).

Customers' age has been considered as one of the key demographic characteristics that has a significant influence on consumers' response to promotions (Park & Gomez, 2004; Vipul, 2010). After surveying 855 grocery shoppers in the Northeast area, Park & Gomes (1994) conclude that providing different types of coupons to different age groups benefits retailers. In particular, the authors found that older customer group is more likely to take advantage of in-store samples than younger groups. In addition, Vipul (2010) discovered that older consumers tend to be more sensitive and prone to sales promotion and more responsive to free samples given in the store. Accordingly, this study hypothesizes following:

H₂: The sale increase as a customers' responsiveness to in-store free samples differs depending on age groups.

Previous studies have suggested that female customers than male customers are more prone to promotion and use more coupons (Mazumdar & Papatla, 1995; Harmon & Hill, 2003). On the other hand, Coughlin & O'Connor (1985) argue that masculine personality than feminine personality is a better predictor of consumers' purchase intentions. In their paper, findings from a total of 420 interviews also reveal that masculinity is a stronger explanatory variable with respect to reactions to marketing activities such as advertising. Furthermore, focusing on free samples, Ndubisi (2005) concludes that consumers' responsiveness to sales promotion does not differ between different gender groups. Specifically, the author shows that gender does not moderate the impact of several promotional tools including free sample on both product trial and repurchase behavior. Therefore, this study hypothesizes following:

H₃: The sale increase as a customers' responsiveness to in-store free samples differs depending on gender.

Finally, we consider the impact of household income on customer's purchasing behavior. Previous research findings on the relationship between income and customer's responsiveness to sampling promotion is mixed. For instance, Narasimhan (1984) found that customers' willingness to use coupons is high only in middle-income households. The author argue that high-income household tend to value quality products over low price. On the other hand, according to Park & Gomez (2004), household income has a negative effect. Customers with a higher household income are less prone to take advantage of sales promotions due to higher opportunity cost of their time. Contrary to this, Bawa & Shoemaker (1987) found a positive relationship between household income and customers' reaction to sampling promotion in their seminal paper. Furthermore, the authors suggest that deal-prone household in one product category is more likely to be deal-prone in other product category.

H₄: The sale increase as a customers' responsiveness to in-store free samples differs depending on household income.

METHODOLOGY AND RESULTS

In-Store Field Study

The data for this study comes from quasi-experiments conducted by six noncompeting grocery chain stores owned by a large Korean retailer. Different outlets were selected to exclude unobservable impacts of external factors such as socio-economic status of customers. In-store free sampling promotions were conducted in three locations for three consecutive weekends with three different product categories. Three of six supermarkets were used as controls and the products investigated are yogurt, sausage, and frozen snack. For each product, there is only one instance of an in-store free sample promotion for the duration of each product sampling event. No other promotional activity was performed with both promoted and non-promoted product categories in the store. The data set used includes purchase information (scanner data for two-week pre- and post-promotion) and demographic characteristics of 9,000 customers that are members of loyalty program.

RESULTS

Table 1 demonstrates a support of H1. It shows sales of promoted product on the day of in-store free sample promotion, compared to the average daily sales of pre- and post-promotion period. Table 1 indicates a consistent pattern across the different product categories. The results suggest that the immediate impact of in-store free sample is significantly positive, while the magnitude differs across three product categories. In the most responsive case, sales of yogurt product increased by 538%, while sales of sausage product increased by 294%. The results also show that the carry-over effect exists.

Table1 MEAN DAILY SALE			
	Previous 2 Weeks (%)	Promotion Day (%)	Following 2 Weeks (%)
Yogurt	100	638	147
Sausage	100	394	121
Frozen Snack	100	591	89

Table 2 shows the result of an univariate analysis on the effect of in-store free sample in three control vs. three treated stores. It shows average sales of promoted product on the day of promotion, compared to the average daily sales of three control locations on the same day. The results suggest that the immediate impact of in-store free sample is significantly positive in all three product categories.

Table 2 MEAN DAILY SALE IN CONTROL VS. TREATED STORES				
	Control (%)	Treated (%)	Difference (%)	p-value
Yogurt	100	578	478	<0.01
Sausage	100	451	351	<0.01
Frozen Snack	100	326	226	<0.01

Demographics Characteristics

Table 3 shows the results of independent samples t-tests for hypotheses 2-4. For each hypothesis, younger, female, and high household income customer groups serve as a comparison. The results show that the sales increase as a customers' responsiveness to in-store free samples differs depending on age and gender but not on household income. In all three product categories, older customers tend to take advantage of free sample promotion than younger group. Average sale increases of yogurt and sausage is significantly higher for female customers than male customers. Finally, the results reveal no difference in the sale increase depending on household income for sausage and frozen snack products.

Table 3 MEAN DAILY SALE INCREASE			
	Yogurt	Sausage	Frozen Snack
Age			
Younger	100	100	100
Older	319	256	294
Difference (%)	219***	156***	194***
Gender			
Female	100	100	100

Male	67***	79***	92*
Difference (%)			
Household Income			
High	100	100	100
Low	121	112	107
Difference (%)	21*	12	7

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

DISCUSSION

Despite of its importance, there is a lack of studies examining the effect of in-store free samples on sales and its moderators including age, gender, and household income. This study implements an actual in-store free-sample promotion in six stores of large Korean grocery chain. Data was collected on three different product categories that are promoted over three consecutive weekends.

The results could be of great interest to marketing researchers as well as managerial audience. First, in-store free sample event is a highly effective form of sales increase. It is worthwhile to note that the magnitudes of the sales increase induced by the three experiments were significant. The results clearly show that in-store free sample lead to an immediate increase in sales and is more likely to boost post-promotion sales. In contrast to the frequently observed post-promotion deep traditional price-based promotions may cause, in-store free sample is a powerful tool that builds long-term sales effects. Thus, the results suggest that marketing managers should use in-store free sample promotion more frequently. However, in-store free sample demonstrations are costly. It would be an interesting avenue to further explore cost-benefit structure of the promotion technique.

Second, although in-store free sample is an effective tool, the relative success is likely to be influenced by customers' demographic characteristics. The results show that older and/or female consumers seem to be more prone to free sample in all three examined product categories. This should encourage marketers to allocate a more proportion of budget to free sample event in markets comprised of more older and/or female customers. However, this study only investigates effects of three demographics. It would also be worthwhile to understand whether in-store free sample would be equally effective for different types of customers.

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