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Effects of Loyalty Programs on Value Perception, Program Loyalty, and Brand Loyalty

Youjae Yi
Hoseong Jeon

Seoul National University, Korea

The authors investigate how reward schemes of a loyalty program influence perceived value of the program and how value perception of the loyalty program affects customer loyalty. The results show that involvement moderates the effects of loyalty programs on customer loyalty. In high-involvement situations, direct rewards are preferable to indirect rewards. In low-involvement situations, immediate rewards are more effective in building a program's value than delayed rewards. Under high-involvement conditions, value perception of the loyalty program influences brand loyalty both directly and indirectly through program loyalty. Under low-involvement conditions, there is no direct effect of value perception on brand loyalty.

Keywords: *loyalty program; reward scheme; brand loyalty; program loyalty; value perception*

In times of severe competition, a loyalty program, which is often called a reward program, is usually introduced to build customer loyalty through the planned reward scheme based on a customer's purchase history. The goal of a loyalty program is to establish a higher level of customer retention in profitable segments by providing more satisfaction and value to certain customers (Bolton, Kannan, and Bramlett 2000). Thus, it becomes a part of the value chain or points of product differentiation. Although

loyalty programs are widely in use, little empirical research has investigated whether the loyalty program is indeed perceived as valuable to the customer and whether it actually contributes to building brand loyalty. There is also scant research on which variables affect the relationship between the loyalty program and customer loyalty.

Also, loyalty programs are often misunderstood and misapplied. When it comes to design and implementation, too many companies treat rewards as short-term promotional giveaways (O'Brien and Jones 1995). Many companies openly discuss all the benefits of loyalty programs, but in reality, their decision to launch a program is often motivated by fears of competitive parity (Dowling and Uncles 1997). Despite the prevalence of loyalty programs worldwide, little research has been done on the actual effectiveness of loyalty programs, and much of the attention is focused on packaged-goods markets (Bowman and Lele-Pingle 1997; Uncles and Laurent 1997). Although previous research has found the positive effects of customer satisfaction on loyalty (Biong 1993; Hallowell 1996; Halstead and Page 1992; Taylor and Baker 1994; Woodside, Frey, and Daly 1989; Yi 1990) and usage behavior (Bolton 1998; Bolton and Lemon 1999; Jones and Sasser 1995), there is relatively little empirical research concerning the mechanisms by which the loyalty program operates (for an exception, see Bolton et al. 2000). The overall purpose of this study is to identify factors affecting the perceived value of a loyalty program and to investigate underlying mechanisms between the loyalty program and customer loyalty.

This study draws on Dowling and Uncles's (1997) conceptual framework of loyalty programs that is based on

type of reward and timing of reward. In this framework, type of reward is classified into two categories: direct versus indirect rewards. Direct rewards are rewards that directly support the value proposition of a given product, whereas indirect rewards refer to incentives that are not relevant to a given product. The timing of reward is also classified into two categories: immediate versus delayed rewards. Immediate rewards can be seen as rewards given for every visit, whereas delayed rewards are rewards provided for every n th visit.

Dowling and Uncles's (1997) framework can be related to behavioral learning theory. Rothschild and Gaidis (1981) explained incentive scheme in the behavioral learning context. They employed two dimensions for incentives: types of reinforcers (primary vs. secondary) and timing of reinforcement (immediate vs. delayed) and investigated the incentive-purchase behavior relationship under the shaping paradigm. Rothschild and Gaidis regarded the delayed-secondary reward as the destination of all incentive programs because promotional tools should not overshadow the products, and incentives should be minimized in the development of rewards.

Rothschild and Gaidis' (1981) conceptualization is similar to Dowling and Uncles's (1997) in that both use a two-dimensional categorization of loyalty schemes: type of reward and timing of reward. Primary and secondary reinforcers suggested by Rothschild and Gaidis are conceptually consistent with direct and indirect rewards proposed by Dowling and Uncles. Rothschild and Gaidis explained primary reinforcers as having intrinsic utility (product) while secondary reinforcers (e.g., tokens, coupons, trading stamps) as having no such utility. Rothschild and Gaidis contend that brand managers could elicit customers' repeat purchase behavior through a well-designed reinforcement program. Hence, they suggest that a successful promotional program should consist of a series of reinforcements starting from the primary-immediate reinforcement to the secondary-delayed reinforcement.

Nevertheless, Dowling and Uncles (1997) advanced a different view about loyalty programs. In their view, immediate rewards are preferable to delayed rewards, and direct rewards would be more effective in enhancing customers' value perceptions than indirect rewards. In addition, they suggested that involvement might moderate the way that loyalty programs work. For example, they asserted that the loyalty program might induce loyalty to the program rather than loyalty to the product under the low-involvement condition. However, they did not provide empirical findings that support their propositions. Against this backdrop, the following questions arise:

- Does the loyalty program indeed increase customer loyalty?
- What aspects of the loyalty program are important in enhancing customers' evaluations of the program?

- Does customers' value perception of the program truly affect brand loyalty?
- Does involvement toward product category moderate the relationship between the loyalty program and brand loyalty?

In the present study, we seek to address these issues. The specific purpose of this study, therefore, is to test Dowling and Uncles's (1997) propositions empirically. In particular, we will examine how two aspects of the loyalty program (type and timing of rewards) influence customers' value perception and how value perception is related to program loyalty and brand loyalty.

THEORETICAL BACKGROUND

Loyalty Program

A loyalty program is a marketing program that is designed to build customer loyalty by providing incentives to profitable customers. A loyalty program is often based on several propositions, such as the following:

1. Customers may want more involving relationships with products that they purchase.
2. A proportion of these customers show a tendency to be loyal.
3. They are a profitable group (i.e., 20/80 law).
4. It is possible to reinforce these customers' loyalty through the loyalty program (Dowling and Uncles 1997).

A loyalty program can accelerate the loyalty life cycle, encouraging a 1st- or 2nd-year customer to behave like a company's most profitable 10th-year customer. These customers become business builders by buying more, paying premium prices, and bringing in new customers by referrals (O'Brien and Jones 1995).

There are various views about the effectiveness of loyalty programs. Partch (1994) claimed that loyalty programs increase operating costs by adding expenses for administering the program without acquiring a competitive edge if all companies are forced to offer loyalty programs just like other short-term promotional programs. Dowling and Uncles (1997:74) claimed that a loyalty program is unlikely to alter customer behavior fundamentally, especially in established competitive markets. Dowling and Uncles's claims are partly based on findings from the British grocery market in which market shares of competing firms have remained stable despite use of loyalty programs.

In contrast, other researchers assert that loyalty programs can increase brand loyalty by creating switching costs and increase operational profit by avoiding price competition (Caminal and Matutes 1990; Kim, Shi, and

Srinivasan 2001; Klemperer 1987). Furthermore, it is claimed that loyalty programs can solve oversupply problems due to seasonality of demand. For example, the airline industry experienced price wars during seasons of low demand. After introducing the frequent-flyer program, however, they were able to deal with oversupply problems by providing rewards such as free tickets to their loyal customers during low-demand seasons. This does not increase the marginal cost of administering a loyalty program (Kim, Shi, and Srinivasan 1997). Moreover, development of database technology helps companies to identify their loyal customers and implement their business philosophy of rewarding the right customers. Bolton et al. (2000) suggested another benefit of the loyalty program by showing that members in the loyalty program tend to overlook or discount a negative evaluation of the company vis-à-vis the competition.

To be successful, a loyalty program must target a valuable customer segment and discourage those customers who are less valuable. Under these conditions, it becomes a self-selecting and individually correcting program (O'Brien and Jones 1995).

Value Perception

O'Brien and Jones (1995) proposed that customers' value perception is a necessary condition for developing brand loyalty through the loyalty program. That is, the loyalty program should be perceived as valuable by customers. They suggested that five elements of the loyalty program determine the value of a loyalty program: (1) cash value of redemption rewards (cash value), (2) the range of choice of these rewards (redemption choice), (3) the aspirational value of rewards (aspirational value), (4) the perceived likelihood of achieving rewards (relevance), and (5) the scheme's ease of use (convenience). Our research builds on the above.

However, there are still other views on value perception. Johnson (1999) argued that attainability, redemption behavior, and relevance determine the value of a loyalty program. Dowling and Uncles (1997) added psychological benefits of belonging to a program and accumulation points. They noted that the summary of accumulated points and the qualification for a reward could be regarded as the psychological rewards in the frequent buyer program. Value perception might be related to the types of reward as well. Kivetz and Simonson (2002) found that luxuries as rewards are better valued than necessities as rewards. Most luxuries are associated with hedonic experiences, whereas most necessities represent utilitarian items. According to their point of view, a loyalty program can have stronger effects for consumers who tend to feel guilty about luxury consumption.

Bowman and Narayandas (2001) demonstrated the importance of distributional, interactional, and procedural fairness to satisfaction following a customer-firm interaction. They found that loyal customers valued interactions such as inquiry and contact with the customer service center more than reward itself. This finding suggests that customers' value perception of the loyalty program might also be related to the processes employed in administering the reward program. According to Bowman and Narayandas, empathy and sincerity are usually associated with the value perceptions of loyal customers because they contribute toward building the sense of interactive fairness.

Loyalty

Loyalty is defined as repeated purchases of particular products or services during a certain period of time. For this reason, a particular brand's purchase frequency (Brody and Cunningham 1968) and purchase possibility (Farley 1964) are often proposed as a means to measure brand loyalty. Typically, researchers measure five types of behavior during certain time intervals to operationalize loyalty in a competitive market: (1) the percentage of customers buying a brand, (2) the number of purchases per buyer, (3) the percentage of customers who continue to buy the brand, (4) the percentage of customers who are 100 percent loyal, and (5) the percentage of customers who also buy other brands—duplicate buyers (Ehrenberg 1988). However, this kind of behavioral definition has been criticized for its limitations in predicting future behavior—the inability to distinguish between repeat purchase behavior attributable to convenience versus commitment. Besides, it cannot explain multibrand loyalty in the context of consumers who buy two or more brands interchangeably (DuWors and Haines 1990).

Jacoby and Chestnut (1978) explored the psychological meaning of loyalty. A psychological approach implies attitudinal loyalty that includes cognitive, affective, and conative elements (Oliver 1997). Oliver (1997) defined loyalty as "a deeply held commitment to rebuy or repatronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behavior" (p. 392). Researchers have thus proposed a two-dimensional conceptualization of loyalty by adding the attitudinal dimension (Dick and Basu 1994; Oliver 1997; Pritchard, Howard, and Havitz 1992). For example, Dick and Basu (1994) classified loyalty into four different categories based on repeated patronage and relative attitude. The categories are loyalty, spurious loyalty, latent loyalty, and no loyalty. Research findings support two-dimensional measurements as more accurate in determining a customer's future behavior. Our research follows a two-dimensional

conceptualization that incorporates both behavioral and attitudinal aspects.

HYPOTHESES

Conceptual Framework

Our study modifies Dowling and Uncles's (1997) reward schemes by introducing the time frame. According to Dowling and Uncles, immediate rewards seem to be commensurate with price promotion. However, we contend that the loyalty program should be treated differently; unlike price promotion, it adopts a long-term perspective in shaping customer behavior.

If a customer wants immediate rewards while a company prefers delayed gratification to build exit barriers, there might be a conflict of interest between the customer and the program sponsor. In that case, the loyalty program may not be effective to the program sponsor, and price promotion might be the better offer for the customer. In line with this view, Dowling and Uncles (1997) showed skepticism about the effectiveness of the loyalty program and suggested a careful use of the loyalty program. However, we argue that unlike a short-term promotional program, a loyalty program can focus its marketing efforts on loyal customers and avoid price competition with competitors.

A loyalty program is a multistep procedure leading to customers' repeated buying behavior. This shaping process usually occurs from successive reinforcements (Rothschild and Gaidis 1981). We should note that Dowling and Uncles (1997) do not mention any specific time dimension in defining immediate rewards and view price promotion as one type of loyalty program. Nevertheless, price promotion is likely to elicit overstock problems and reward price-sensitive brand switchers rather than loyal customers. In addition, price promotion does not have a long-term perspective needed for nurturing customer loyalty. Kim et al. (2001) noted that a loyalty program weakens price competition by offering incentives for repeat purchases, while price-promotion-oriented firms gain less from undercutting their prices. Considering that the loyalty program plays a role as "competitive leverage" or "exit barrier" (Klemperer 1987), it is useful to view the loyalty program as being different from the short-term promotion. As immediate rewards cannot distinguish short-term promotion and long-term loyalty programs, we modified Dowling and Uncles' (1987) reward scheme by adding repeated reinforcements to immediate rewards. One contribution of our modification is thus to distinguish a loyalty program from price promotion. Figure 1 illustrates our modified reward scheme.

If a loyalty program is to leverage value sharing toward loyal customers, it should define target customers to whom it is entitled. For example, if a grocery store always offers

FIGURE 1
A Modified Framework
of Reward Schemes

Type of Reward	Timing of Reward	
	Repeated & Immediate	Delayed
Direct	Instant Scratches, Membership Program (Product-Related Reward)	Airline Frequent-Flyer Clubs, Coupon & Token (GM Card)
Indirect	Instant Scratches, Membership Program (Non-Product-Related Reward)	Multiproduct Frequent-Buyer Clubs (Fly Buys)

special low prices to the customers who join the membership program, such a scheme could be classified as immediate and repeated rewards. It could explain successive reinforcements of customer behavior and selection of target customers unlike simple price promotion in that it could control value sharing toward loyal customers. MCI's Friends and Family program is an example in that customers are rewarded every time they call within the calling plan.

Dowling and Uncles (1997) noted that the value perception of the loyalty program does not necessarily transform into brand loyalty, especially under low involvement. This is because a customer is likely to derive value from the loyalty program rather than from a product. That is, a customer may hold program loyalty, not brand loyalty. As Rothschild and Gaidis (1981) suggested, incentives offered by the loyalty program may elicit loyalty to the program (deal loyalty) rather than to the core product (brand loyalty). In that case, the deal may induce brand switching because it is likely to be more reinforcing than the product itself. In Scott's (1976) research, the incentive rather than the product was the primary reward for a purchase behavior. When the incentive was withdrawn, the behavior would be extinguished (Rothschild and Gaidis 1981). If the goal of the brand manager is to reinforce purchase behavior rather than the pursuit of incentives, it is important to direct customers' attention toward the product and not toward the promotional premiums.

Ehrenberg (1988) noted that customer loyalty could be divided among a number of brands, leading to polygamous loyalty. If polygamous loyalty is a reasonable assumption, customer loyalty could be divided into program loyalty and brand loyalty. Program loyalty is conceptualized as having a high relative attitude leaning toward the loyalty program. Program loyalty is similar to reinforcing loyalty in Yim and Kannan's (1999) study and can be viewed as loyalty toward incentives. As customers can have loyalty toward more than one alternative (Yim and Kannan 1999), it would be possible to distinguish between program loyalty and brand/retailer loyalty in the conceptualization of customer loyalty by examining whether customers'

FIGURE 2
Modified Loyalty Framework

Target of Attitude	Repeated Patronage	
	High	Low
Product	Brand Loyalty	Latent Loyalty
Program	Program Loyalty	No Loyalty

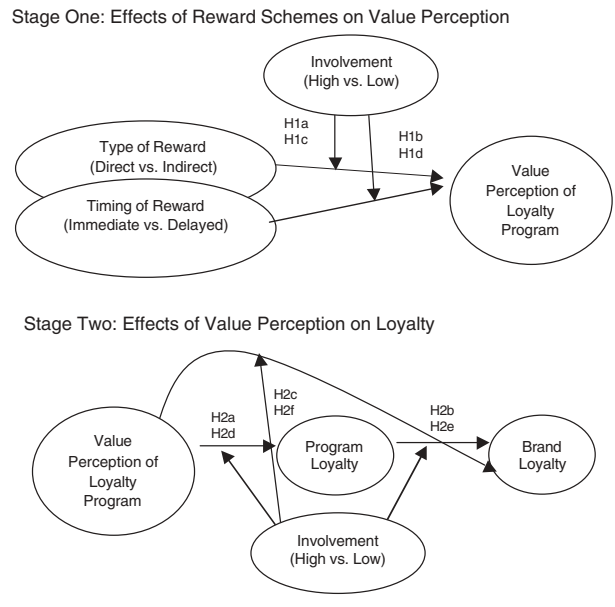
repurchasing tendency is due to a product or loyalty program. Hence, we propose a new loyalty framework by incorporating “target of attitude” (see Figure 2).

We also regard involvement as a moderator of the process in which the loyalty program operates. As mentioned earlier, Dowling and Uncles (1997) suggested that involvement might moderate the effects of loyalty schemes. In investigating the moderating role of involvement, we extend Dowling and Uncles’s view in several ways. Although they discussed the moderating role of involvement with regard to type of reward, they made no explicit mention as to timing of reward. We believe that the influence of involvement might not be confined to type of reward. Thus, we propose that the effect of reward timing will also be moderated by involvement. Furthermore, we posit that involvement can moderate the relationship between value perception and loyalty, which had not been considered by Dowling and Uncles.

Involvement is an important element in understanding a consumer’s buying process (Beatty, Kahle, and Homer 1988; Burton and Netemeyer 1992; Kapferer and Laurent 1993). Although there are various views of involvement, it is generally accepted that involvement reflects a strong motivation in the form of highly perceived personal relevance to products or services in a particular context (Celsi and Olson 1988; Flynn and Goldsmith 1993; Gotlieb, Schlacter, and St. Louis 1992). Depending on the perceived linkage between an individual’s motivating influences and the benefits offered by a certain object, involvement can vary from low to high. Bloemer and Kasper (1995) showed that involvement affects the relationship between customer satisfaction and loyalty. Rothschild and Gaidis (1981) also raised a question as to whether there is a difference in long-run behavioral change shaped by the series of reinforcement schedules between high- and low-involvement situations. Taken together, previous studies suggest that involvement might moderate the relationships between the variables concerning customer loyalty.

To address research issues, we propose a conceptual model with two stages (see Figure 3). A basic proposition of this study is that value perception of the loyalty program is necessary for the loyalty program to induce customer loyalty. O’Brien and Jones (1995) asserted that the loyalty

FIGURE 3
Effects of Reward Schemes and Value Perception



program should be recognized as being valuable to the customer in order to be effective. The first stage examines how reward schemes affect customers’ value perception of the program. In this regard, we will examine two aspects of reward schemes: timing of rewards and type of rewards. The second stage investigates how value perception of the loyalty program affects brand loyalty. We propose that value perception may affect brand loyalty in two ways: (1) direct—value perception affects brand loyalty directly, and (2) indirect—value perception affects program loyalty, which in turn affects brand loyalty; that is, program loyalty mediates the effect of value perception on brand loyalty.

In sum, by investigating the relationship between loyalty programs and customer loyalty as well as examining the moderating role of involvement, our research attempts to uncover the mechanisms underlying customer loyalty. If we can identify the underlying mechanism between the loyalty program and customer loyalty as well as the moderating variable, we can design an effective loyalty program that can deliver value to the right customers.

Effects of Reward Schemes on Value Perception

This study examines how value perception of a loyalty program is affected by two aspects of rewards: type of rewards and timing of rewards. We propose that their

relative effects can vary depending on involvement. Under high involvement, customers may participate more actively in information search, and information about the type of reward becomes more important because of its high relevance to value perception. As consumers are likely to pay more attention to the purchase of a product, direct rewards that are related to the value proposition of a product are likely to receive more attention than indirect rewards.

Under low involvement, a consideration of the behavioral learning theory would suggest that the value of the reward is derived from the attributes of incentives, and not the product itself (Rothschild and Gaidis 1981). The product itself is not of utmost concern to customers, and the timing of reward is likely to become an important factor in harnessing the customers' value perception. In particular, immediate rewards would be preferable to delayed rewards. Thus, we hypothesize that the loyalty program's value differs depending on the customer's involvement. Hence,

Hypothesis 1: Under high involvement,

- (a) Perceived value of the loyalty program is higher for direct rewards than for indirect rewards.
- (b) Perceived value of the loyalty program is not different between immediate rewards and delayed rewards.

Hypothesis 1: Under low involvement,

- (c) Perceived value of the loyalty program is not different between direct rewards and indirect rewards.
- (d) Perceived value of the loyalty program is higher for immediate rewards than for delayed rewards.

Effects of Value Perception on Loyalty

We conceptualize brand loyalty and program loyalty as consequences of the value perception of the loyalty program. As Rothschild and Gaidis (1981) argued, many incentive programs might induce loyalty to the program rather than to the product. The extent to which this is desirable would depend on the buyer's level of involvement with the product (Dowling and Uncles 1997). For high-involvement products, value perception created by rewards would lead to brand loyalty. Although such incentives might be valued, they are not of intrinsic interest to customers. In high-involvement situations where complex cognitive activities would take place, self-perception-based strategy may be appropriate (Rothschild and Gaidis 1981). That is, if customers receive minimal rewards for performing a task, customers would infer their attitudes by observing their own behavior and attribute such behavior to intrinsic interest (Bem 1967). We expect that value perception, although derived from incentive, would not build program loyalty since customers attribute their behavior to products rather than external incentives. In line with this view, we propose that value perception, while derived

from the incentives, would directly affect brand loyalty under high involvement.

On the other hand, behavioral learning theory suggests that deals cause brand choice, and the deal is more likely to be reinforcing than the product under low involvement (Rothschild and Gaidis 1981). Thus, for low-involvement products, rewards may lead to brand loyalty via program loyalty because value perception elicited by rewards is primarily toward the loyalty program. That is, value perception works in an indirect route with program loyalty as a mediator between value perception and brand loyalty. In sum, we hypothesize that there are two routes from value perception to brand loyalty; the direct route prevails under high involvement, whereas the indirect route occurs under low involvement. Hence,

Hypothesis 2: Under high involvement,

- (a) Perceived value of the loyalty program has little effect on program loyalty.
- (b) Program loyalty has little effect on brand loyalty.
- (c) Perceived value of the loyalty program has a positive effect on brand loyalty.

Hypothesis 2: Under low involvement,

- (d) Perceived value of the loyalty program has a positive effect on program loyalty.
- (e) Program loyalty has a positive effect on brand loyalty.
- (f) Perceived value of the loyalty program has little effect on brand loyalty.

METHOD

Participants and Procedure

A pretest was conducted with 40 college students to select test products. As it was rather difficult to manipulate involvement for individual customers, we chose to manipulate involvement based on product categories. We assessed their involvement with various product categories that were frequently used by college students. On the basis of the involvement inventory suggested by Zaichkowsky (1985), we measured involvement with ten 7-point scales anchored as *important/unimportant*, *of no concern/of concern to me*, *irrelevant/relevant*, *means a lot to me/means nothing to me*, *valuable/worthless*, *beneficial/not beneficial*, *uninterested/interested*, *vital/superfluous*, *boring/exciting*, *unnecessary/needed*. On the basis of the results, we selected two categories of services: beauty shops for high involvement and fried-chicken stores for low involvement.

We then conducted the main experiment in a 2 (type of reward: direct vs. indirect) \times 2 (timing of reward: immediate vs. delayed) \times 2 (involvement: high vs. low) between-subjects design. Each subject was randomly assigned to one of the eight conditions. A scenario was used to manipulate reward schemes in the loyalty program. Eight

scenarios were developed, one for each condition, and each participant received the booklet containing a scenario that corresponded to the assigned condition.

Involvement was manipulated with the service category: fried chicken stores (low) or beauty salons (high). Type of reward was manipulated with the prize; the indirect reward was a portable CD case, while the direct reward was hair bleach or free chicken. It was imperative that there be no significant difference in the monetary value of rewards across conditions. Thus, reward programs were designed to provide similar cash value. In manipulating the timing of reward, immediate rewards were operationalized as giving a scratch card to a customer for every visit, whereas delayed rewards were operationalized as providing rewards to a customer for every 10th visit. To make both reward schemes compatible, we used a 10 percent probability of winning a prize in the scratch card. The winning probability of 10 percent is supposed to match the expected cash value of immediate rewards with that of delayed rewards. Although not everyone is entitled to get a physical reward in this immediate scheme, customers get immediate psychological rewards such as a sense of belonging or the possibility of winning the reward as they get scratch cards for each visit.

The booklet first asked participants to state the name of the beauty shop (or fried chicken shop) that they visited frequently. They were then asked to answer subsequent questions with regard to that shop. Next, they were asked to read a scenario of a loyalty program while assuming that the focal shop was considering introducing a loyalty program. Finally, they were asked to evaluate the value of the loyalty program they had just read and their relative attitude toward the loyalty program and the focal shop. All participants were debriefed upon completion of the study.

Participants were selected on the basis of several criteria. First, they must use the stated shop frequently enough to meet the behavioral definition of customer loyalty. If the frequency of visiting the focal shop was less than 50 person, that person was excluded from the study. Second, participants should have had no prior experience regarding the focal shop's loyalty program. If the stated shop already had a loyalty program, the person was excluded. Third, participants should use the focal shop for themselves. Finally, we selected independent shops because we needed control over scenarios of a new reward program. We did not include nationwide franchises such as KFC in order to minimize any inherent heterogeneity. Only those participants who met these criteria were asked to participate in the main study, and a total of 262 participants completed the study.

Measures

Among the five dimensions suggested by O'Brien and Jones (1995), cash value, relevance, and aspirational value

were used to measure the value perception of the loyalty program. Redemption choice and convenience dimensions were not included, because these dimensions were considered irrelevant with regard to the loyalty program scenarios employed in this study. The three items were the following: "The proposed rewards have high cash value"; "It is highly likely to get the proposed rewards"; and "The proposed rewards are what I have wanted." A 7-point scale for each item was anchored as *not at all/quite a lot*.

We defined loyalty as having high relative attitude toward the loyalty program or brand. Because we could not control the behavioral dimension that required participants' experiences with products in our research design, we measured the attitudinal aspect of loyalty while ensuring that the behavioral condition (high-repeat visits) was met in the sample selection process. After showing each scenario explaining a new loyalty program, we measured the participants' program loyalty and brand loyalty. Program loyalty was operationalized as high relative attitude toward the loyalty program. It was measured with three items: "I like the proposed loyalty program more so than other programs"; "I have a strong preference for the proposed loyalty program"; and "I would recommend the proposed loyalty program to others." Again, a 7-point scale was used. Brand loyalty was thus assessed with four items that asked their relative attitude toward the focal shop. These items were "I like X shop more so than other shops"; "I have a strong preference for X shop"; "I give prior consideration to X shop when I have a need for a product (service) of this type"; and "I would recommend X shop to others." Participants indicated the degree of agreement on a 7-point scale anchored as *not at all/quite a lot*. Finally, the involvement level of the test category was measured with the involvement inventory (Zaichkowsky 1985).

ANALYSIS AND RESULTS

Manipulation Check, Validity, and Reliability

We performed a manipulation check on involvement. According to involvement measures, the involvement level was higher for beauty shops than for chicken stores (4.7 vs. 3.1, $p < .01$). As was the case in the pretest, beauty salons and fried-chicken stores represented high and low involvement for the participants in the main study.

We also performed a manipulation check on "timing of reward." Participants were asked to indicate the time frame that would distinguish "immediate rewards" and "delayed rewards." The results showed that the average cutoff level was an incentive for every 4th visit. Thus, rewards for every visit could be seen as immediate rewards, while rewards for every 10th visit could be perceived as delayed rewards.

TABLE 1
Confirmatory Factor Analysis Results

<i>Parameter</i>	<i>Estimate</i>	<i>Parameter</i>	<i>Estimate</i>	<i>Chi-Square Difference</i>
High Involvement (<i>n</i> = 71)				
$\lambda_{x_{11}}$	1.000			
$\lambda_{x_{21}}$	0.947 (8.17)	Φ_{21}	0.612 (4.57)	$\chi^2_d = 12.76^{**}$
$\lambda_{x_{31}}$	0.956 (8.29)			
$\lambda_{x_{42}}$	1.000			
$\lambda_{x_{52}}$	1.052 (7.60)	Φ_{31}	0.579 (4.39)	$\chi^2_d = 13.11^{**}$
$\lambda_{x_{62}}$	1.087 (7.93)			
$\lambda_{x_{72}}$	1.094 (8.00)			
$\lambda_{x_{83}}$	1.000			
$\lambda_{x_{93}}$	0.910 (6.08)	Φ_{32}	0.560 (4.38)	$\chi^2_d = 15.40^{**}$
$\lambda_{x_{103}}$	1.015 (6.90)			
Low Involvement (<i>n</i> = 65)				
$\lambda_{x_{11}}$	1.000			
$\lambda_{x_{21}}$	0.869 (7.35)	Φ_{21}	0.392 (3.33)	$\chi^2_d = 10.75^{**}$
$\lambda_{x_{31}}$	0.989 (8.82)			
$\lambda_{x_{42}}$	1.000			
$\lambda_{x_{52}}$	1.012 (9.70)	Φ_{31}	0.439 (3.57)	$\chi^2_d = 5.37^{**}$
$\lambda_{x_{62}}$	1.065 (10.66)			
$\lambda_{x_{72}}$	0.947 (8.57)			
$\lambda_{x_{83}}$	1.000			
$\lambda_{x_{93}}$	1.077 (5.03)	Φ_{32}	0.266 (2.66)	$\chi^2_d = 16.89^{**}$
$\lambda_{x_{103}}$	1.202 (5.34)			

NOTE: *t*-values of parameter estimates are in parentheses.

***p* < .05.

Measurement validity was assessed by confirmatory factor analysis (CFA) (Bagozzi, Yi, and Phillips 1991; Gerbing and Anderson 1988). The CFA results revealed that the measures achieved convergent validity. At least half of the total variation was due to factors (i.e., $\lambda^2 > .5$), and strong evidence for convergent validity was achieved (Bagozzi and Yi 1991). The results also showed that each factor was a unidimensional construct. Chi-square difference tests were then conducted to test whether each of the factor correlations was significantly different from unity. The baseline model was the model with freely correlated factors, whereas a particular factor correlation (i.e., Φ) was fixed to unity in the restricted model. The difference in the chi-square value between the baseline model and the restricted model permits the test of discriminant validity. All the chi-square differences were significant, suggesting that value perception, program loyalty, and brand loyalty were mutually distinct constructs. Discriminant validity was thus achieved. Table 1 summarizes the results.

The reliability of measures was assessed with Cronbach's alpha, and all the measures showed a satisfactory level of reliability. For high involvement, Cronbach's alphas for value perception, program loyalty, and brand loyalty were .80, .86, and .89, respectively. For low involvement, Cronbach's alphas for value perception, program loyalty, and brand loyalty were .79, .88, and .93, respectively.

Test of Hypotheses 1a-1b and 1c-1d

Hypotheses 1a-1b and 1c-1d address the effectiveness of each loyalty scheme in building a customer's value perception of the loyalty program. The data were analyzed by using a 2 (direct vs. indirect) \times 2 (immediate vs. delayed) between-subjects ANOVA using SPSS 10.0. We hypothesize that under high involvement, direct rewards are more effective than indirect rewards in building a program's value regardless of reward timing. We also hypothesize that under low involvement, immediate rewards are more effective in developing customer value than delayed rewards regardless of reward type. Tables 2 and 3 summarize the results for Hypotheses 1a-1b and 1c-1d.

The results for the high-involvement condition show that types of reward had a significant main effect on value perception, $F(1, 135) = 252.565, p < .01$. Besides, perceived value of the loyalty program was higher for direct rewards than for indirect rewards (4.57 vs. 2.93, $p < .01$). Hypothesis 1a was thus supported. On the other hand, the main effect of timing of reward was not statistically significant, $F(1, 135) = 1.469, p > .20$. The perceived value was not different between immediate rewards and delayed rewards (3.81 vs. 3.68, $p > .20$). These results provided support for Hypothesis 1b. Overall, the results suggest that information regarding reward type could reinforce value proposition of products for customers under high involvement.

TABLE 2
Cell Means for Hypotheses 1a-1b and 1c-1d

<i>High Involvement</i>		
<i>Type</i>	<i>Timing</i>	<i>Value Perception</i>
Direct	Immediate	4.63 (36) ^a
	Delayed	4.50 (35)
Indirect	Immediate	2.99 (33)
	Delayed	2.87 (35)
<i>Low Involvement</i>		
<i>Timing</i>	<i>Type</i>	<i>Value Perception</i>
Immediate	Direct	4.42 (32)
	Indirect	4.39 (33)
Delayed	Direct	3.47 (30)
	Indirect	3.09 (28)

a. Cell means are measured by a 7-point scale. Cell sizes are in parentheses.

TABLE 3
ANOVA Results for Hypotheses 1a-1b and 1c-1d

<i>High Involvement</i>		
	<i>F-Value</i>	<i>df</i>
Main effect		
Combined	127.49**	2
Type	252.56**	1
Timing	1.46	11
Interaction (Type × Timing)	0.01	1
Model	31.41**	3
<i>Low Involvement</i>		
	<i>F-Value</i>	<i>df</i>
Main effect		
Combined	36.36**	2
Type	2.10	1
Timing	71.18**	1
Interaction (Type × Timing)	1.79	1
Model	24.83**	3

***p* < .05.

In addition, an interaction effect was examined to test the proposition of Rothschild and Gaidis (1981). Rothschild and Gaidis predicted that the primary-immediate reinforcement (or direct-immediate reward) would be better than the primary-delayed reinforcement (or direct-delayed reward). However, there was no significant interaction effect between type of reward and timing of reward, $F(1, 135) = 0.003, p > .90$. The perceived value of the program was not significantly different between direct-immediate reward and direct-delayed reward (4.63 vs. 4.50, $p > .50$). The results did not lend support for the prediction by Rothschild and Gaidis.

The results for the low-involvement condition show that the main effect of reward type was not statistically significant, $F(1, 135) = 2.103, p > .10$. The perceived value was not different between direct rewards and indirect rewards (3.95 vs. 3.74, $p > .10$). Hypothesis 1c was thus supported. On the other hand, timing of reward had a significant main effect on value perception, $F(1, 135) = 71.182, p < .01$. Besides, perceived value of the program was higher for immediate rewards than for delayed rewards (4.41 vs. 3.29, $p < .01$). The result provided support for Hypothesis 1d. Again, there was no significant interaction effect between type of reward and timing of reward, $F(1, 135) = 1.790, p > .10$.

To summarize, we found that the effects of reward type and reward timing on value perception were moderated by involvement. Under high involvement, type of reward had a significant effect on value perception of the loyalty program; direct rewards were perceived to be more valuable than indirect rewards. Under low involvement, timing of reward had a significant effect on value perception; immediate rewards were perceived to be more valuable than delayed rewards.

Test of Hypotheses 2a-2c and 2d-2f

Hypotheses 2a-2c and 2d-2f address the influence of value perception on customer loyalty. In testing Hypotheses 2a-2c and 2d-2f, structural equation analysis was performed via LISREL 8. Our model posits that value perception influences brand loyalty via two routes: a direct route and an indirect route through program loyalty. Hypotheses 2a-2c predict that a direct route will be significant under high involvement, whereas Hypotheses 2d-2f posit that an indirect route will be significant under low involvement.

The entire structural model was run for each involvement condition in order to test Hypotheses 2a-2c and 2d-2f. In the high-involvement condition, the overall model showed a satisfactory fit: $\chi^2(32) = 52.59 (p = .012)$, the Goodness-of-Fit Index (GFI) = .887, the Adjusted Goodness-of-Fit Index (AGFI) = .806, and the root mean square residual (RMR) = .045. The overall GFIs for the low-involvement condition were as follows: $\chi^2(32) = 39.87 (p = .160)$, GFI = .895, AGFI = .819, and RMR = .046. Taken together, the findings indicated that there was a satisfactory fit between the proposed model and the data (Bagozzi and Yi 1988).

For the high-involvement condition, the path from value perception to program loyalty was statistically significant (.944, $p < .01$), and the path from program loyalty to brand loyalty was also significant (.453, $p < .05$). We failed to find support for Hypotheses 2a and 2b; both paths of the indirect route were also significant. The direct path

from value perception to brand loyalty was significant (.485, $p < .05$), providing support for Hypothesis 2c that predicted a direct route. Both direct and indirect routes were significant under high involvement.

For the low-involvement condition, the path from value perception to program loyalty was statistically significant (.924, $p < .01$), and the path from program loyalty to brand loyalty was significant (.387, $p < .10$). These results were consistent with Hypotheses 2d and 2e that predicted an indirect route. Moreover, the direct path from value perception to brand loyalty was not significant (.202, $p > .10$), providing support for H2f that predicted an insignificant direct route. Under low involvement, the indirect route was significant, whereas the direct route was not.

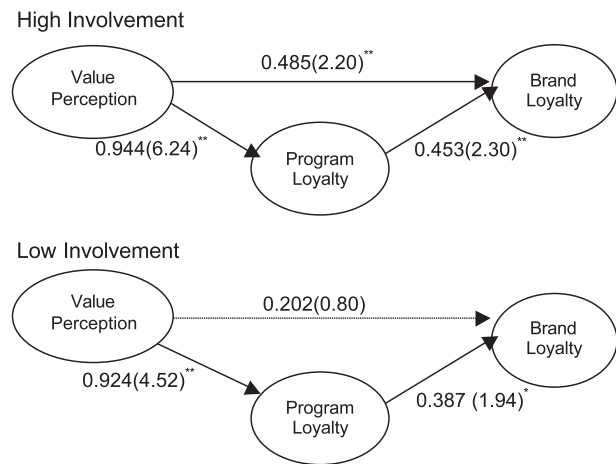
In summary, we examined the causal relationship between value perception and customer loyalty in the test of Hypotheses 2a-2c and 2d-2f. In the high-involvement condition, value perception of the loyalty program affected brand loyalty via a direct route as hypothesized. However, an indirect route, which was not hypothesized, was found as well. In the low-involvement condition, participants' value perception did not affect brand loyalty directly but indirectly through program loyalty. That is, program loyalty fully mediated the effect of value perception on brand loyalty in the case of low involvement. These results are not consistent with Dowling and Uncles's (1997) prediction. They were not sure whether a customer desires a relationship with products in the low-involvement condition. The key results are presented in Figure 4.

DISCUSSION

Our study extends the previous study of Dowling and Uncles (1997) by specifying the scheme of the loyalty program and expanding the concept of loyalty. The results indicate that processes underlying the effects of the loyalty program on customer loyalty are different depending on involvement. In the high-involvement condition, direct rewards are preferable to indirect rewards regardless of reward timing. In the low-involvement condition, immediate rewards are more effective in building a program's value than delayed rewards. This means that delayed rewards such as a mileage program can be justified in the high-involvement condition as long as they are linked with value-enhancing rewards. In the low-involvement condition, there may be a conflict of interest between the customer and the program sponsor, because the customer may be concerned with only the reward schedule and not the reward type. In cases of low involvement, immediate rewards such as lotteries are recommended because customers may purchase to receive incentives.

The current study also extends previous research on loyalty by proposing and testing causal relationships

FIGURE 4
Results for Hypotheses 2a-c and 2d-f



NOTE: *t*-values of parameter estimates are in parentheses.
* $p < .10$. ** $p < .05$.

between program loyalty and brand loyalty. We have found that the value perception and customer loyalty link could be divided into two different paths: a direct route from value perception to brand loyalty and an indirect route with program loyalty as a mediator. This study thus deepens our understanding of how value perception of the loyalty program affects program loyalty and brand loyalty. Involvement is found to influence the relative importance of these routes. The results show that brand managers need to consider involvement as an important factor in designing a loyalty program.

One implication of the results is that the nature of program loyalty is somewhat different according to involvement. Under high involvement, program loyalty is formed based on value perception, and the loyalty program affects brand loyalty via both direct and indirect routes. Under low involvement, there is no direct route between value perception and brand loyalty. That is, the loyalty program's value affects brand loyalty only through program loyalty to the extent that the program provides value to the customer. It is interesting to note that brand loyalty can be achieved through program loyalty. This finding implies that customers may want a long-term relationship even with a low-involvement product such as detergent, soft drinks, and soaps, as long as the loyalty program is valuable to them.

Given that the loyalty program is employed to instill or maintain customer loyalty, brand managers should pay their attention to the process by which the loyalty program works. They should consider designing a loyalty scheme that can improve the value chain of products or services. In

this regard, it will be beneficial for brand managers to understand which aspects of loyalty schemes influence customers' value perception. For example, the effectiveness of loyalty programs may be undermined when an indirect reward is used in the high-involvement situation or when a delayed reward is adopted in the low-involvement situation.

This research suggests that loyalty marketing is a better fit for high-involvement products considering that it can reach brand loyalty through both direct and indirect routes. If brand managers of these categories want to build brand loyalty, the loyalty program that is related to the value proposition of products may be the best candidate for brand managers. For low-involvement products, however, a careful use of the loyalty program is recommended because there is no direct relationship between value perception and brand loyalty and immediate rewards are easy to duplicate by competitors. If customers derive value from the loyalty program, program loyalty might be an appropriate goal of the loyalty program in the low-involvement situation.

Limitations and Directions for Future Research

It may be interesting to categorize loyalty programs based on target customers. Although loyalty programs are usually designed toward loyal customers, loyalty programs can also be used as an effective tool in service recovery programs or customer revitalization programs. If knowledge is accumulated, various versions of the loyalty program can be applied based on a loyalty program's target customers. Furthermore, it might be interesting to relate the loyalty scheme directly with brand loyalty instead of value perception. By applying before-and-after experimental designs, one can measure the direct impact of the loyalty scheme in building positive attitudes toward products, and it may be interesting to compare the results with those of this study.

Several interesting questions arise as well. Can effective management of a loyalty program reinforce customers' value perception of the loyalty program? Can the rewards influence program loyalty or brand loyalty directly? Are there reward structures that may undermine customer loyalty?

Fried-chicken stores and beauty salons were used to represent low and high involvement. In fried-chicken stores, there was no significant difference in involvement between men and women (4.8 vs. 4.6, $p > .05$). In beauty salons, however, the gender difference was significant (3.2 vs. 2.9, $p < .05$). Thus, we conducted the chi-square difference test in the high-involvement condition. A restricted model that imposes equality constraints on all three parameters across subgroups and a general model that allows all of these parameters to vary freely across

subgroups were compared. The chi-square difference is 6.8 ($df = 3$) for high involvement and 3.8 ($df = 3$) for low involvement. The chi-square difference between the two models is not significant ($\chi^2_d = 7.81$, $df = 3$). Thus, our model, assuming gender-invariant parameters, is supported, and it could be said that gender difference did not pose serious problems in the interpretation of our research outcomes.

Since we could not control the behavioral condition in our research design, we measured the attitudinal dimension while ensuring that the behavioral condition was met in the sample selection process. Nevertheless, there might have been potential problems in the sample selection process. In addition, external validity is an issue here since we measured program loyalty after onetime presentation of loyalty program scenarios. For generalization of our research findings, there is a need to replicate our study in a longitudinal research design. One could then measure program loyalty after participants' repeated experience with a loyalty program and gauge brand loyalty based on the two-dimensional definition of loyalty.

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ABOUT THE AUTHORS

Youjae Yi (youjae@snu.ac.kr) (Ph.D., Stanford University, 1987) is a professor of marketing in the College of Business Administration at Seoul National University. He was at the University of Michigan as an assistant professor, Sanford Robertson Assistant Professor, and tenured associate professor. His work has appeared in the *Journal of Marketing Research*, the *Journal of Consumer Research*, the *Journal of Applied Psychology*, the *Journal of the Academy of Marketing Science*, the *Journal of Consumer Psychology*, the *Journal of Advertising*, and the *Journal of Econometrics*. He is currently an editor of the *Korean Journal of Consumer Studies* and was an editor of the *Seoul Journal of Business*.

Hoseong Jeon (jeonho1@snu.ac.kr) is a doctoral candidate in the College of Business Administration at Seoul National University. He received his M.A. in advertising from Michigan State University. His current research interests include customer relationship management, advertising effects on consumer attitudes, and determinants of customer loyalty.